Islamic Banking Performance Measurement: Employment of Islamic Index

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Abstract

This paper measures the financial performance of selected Islamic banks over the period 2001 – 2004, using the Shariah Conformity and Profitability (SCnP) model. The SCnP model strategically combines the profitability orientation of conventional accounting performance measures with the Shariah compliance orientation indices for assessing the socio-economic obligations of Islamic banks. This model enables Islamic banks to undertake strategic directions based on their financial performance. This model also helps in establishing criteria for excellence in Islamic banking and other Shariah based businesses, while providing a roadmap for success in the Islamic economy. The empirical results show existence of financial performance disparity among the sample Islamic banks. Generally, the result shows that Islamic banks do have high profitability and good Shariah compliance. However, one bank experienced low profitability and weak Shariah compliance. In this paper, we provide several recommendations on the strategic direction that lagging Islamic banks need to undertake in order to improve their financial performance.

1. Introduction

The growth of Islamic banking institutions worldwide has been phenomenal over the years. Today there are more than 200 Islamic banks all over the world with an asset base of more than US$200 billion. The significance of Islamic banks in enhancing economic development of countries is undeniable. The important roles that Islamic banks play in terms of being shareholders and creditors of firms increases the popularity and viability of Islamic banking system in many countries, including in the Western nations.

Today, various internal (such as the bank's management policy, firm ownership structure, investment and expenditure policies) and external factors (such as political environment, technological advancement and deregulation policies) have intensified competition in the banking industry. Survival in the banking industry requires a thorough and diligent analysis of its business performance. Evaluation of the performance of banks is important for managerial and regulatory purposes. Bank regulators, depositors and managers have different needs. Depositors rely a lot on how secure a bank is, as a financially unsound bank does not guarantee good returns. Bank regulators would want to monitor the performance of financial institutions in order to protect the interest of the public as a whole. Managers need reports on the performance of banks to assess the current state of their business and plan for the future.

Performance evaluation in Islamic banks is much more complex and demanding. This is because performance measurement in these banks focuses on profitability as well as compliance with Shariah based principles. One of the major methods of measuring performance of banks is by analyzing the accounting data of the banks (Hassan and Bashir, 2002). It is achieved by employment of a number of financial ratios, which can often be derived from the bank's annual financial report.

Generally, investors in banks are concerned with how far the institutions have successfully achieved their objectives – which is profit maximization in the case of conventional banking institutions. In Islamic banks, it is a different story. According to Shahul et al. (2003), most Muslim investors are not only concerned with the dividend and capital return from their investment, but also on the whereabouts of their investment - such as where it has been invested. This is because Shariah principles (or Islamic law) promote justice and social welfare through the obedience to God's (Allah) commandments. Wealth or richness needs to be fairly and equally shared among the Muslims.

Thus, measuring the performance of Islamic banking institutions (in terms of its financial performance and social obligations) is indeed of a great importance. Realizing the fact that there are various performance measurement methodologies, we sought to address the question of whether the conventional financial indicators (e.g. ROA, ROE and profit margins) 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 empirical studies have employed the conventional financial indicators to measure performance of Islamic banks (see for example studies by Bashir, 1999; Agarwal and Yousef, 2000).

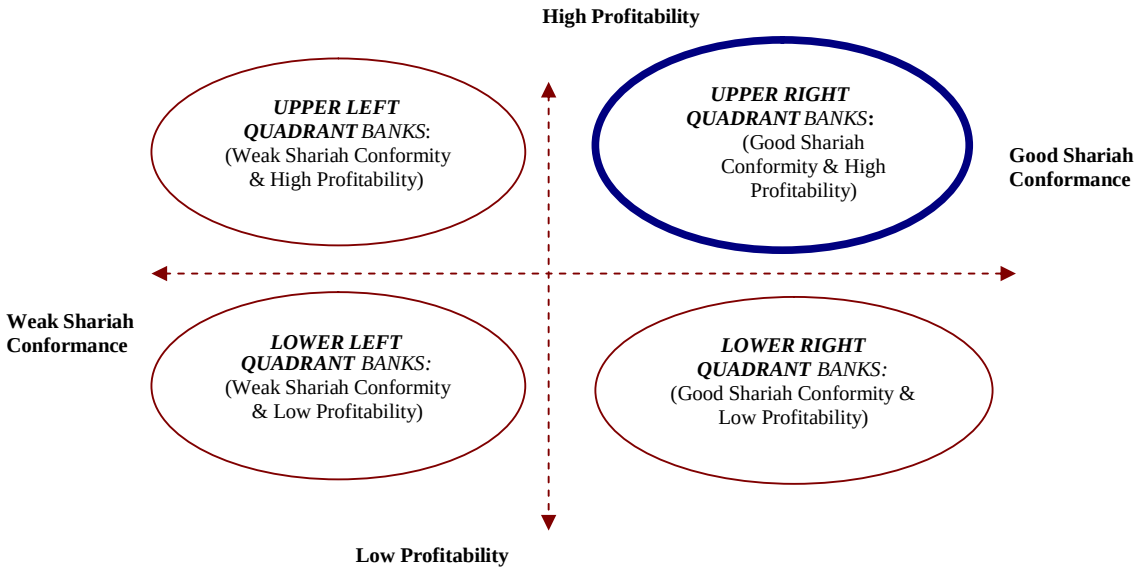
Only handful of studies has used Islamic based indicators to gauge the performance of Islamic banks (e.g. Shahul et al., 2003). None have used a combined model that measures financial performance of Islamic banks. Thus, we came to a conclusion that financial performance of Islamic banks could be best done using a combined set of indicators (conventional and Islamic), since these do not overlap and essentially evaluate two different aspects of Islamic banks. This study aims to address this issue. Note that this study is a preliminary work that tests the basic validity of the SCnP model, using selected banks and variables. Much work needs to be done to comprehensively address this issue. For instance, employment of 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 with the availability of larger resources.

The objective of this paper is to measure the performance of Islamic banks from several countries over the period 2001 – 2004. In this context, we will measure and compare the financial performance of four Islamic banks using the conventional financial indicators and Islamic financial indicators. This approach is named as the Shariah Conformity and Profitability (SCnP) model. The idea is to measure and benchmark financial performance of Islamic banks. To this end, this paper is organized as follows. Following the introduction in Section 1, Section 2 provides the discussion of the conceptual framework promoted in this study. Section 3 provides the methodology employed in this study. The results are given in Section 4. Section 5 provides the conclusion and suggestions on how lagging Islamic banks can improve their financial performance in the future. Section 6 provides the future research directions.

2. Conceptual Framework: The Shariah Conformity & Profitability Model

The conceptual framework promoted in this study is based on one major notation – that is Islamic banking institutions undertake business similar to the conventional banks, but with a significant emphasis on social equity. Here, adherence to Shariah requirements is vital, followed by measurement of its performance. Published literature has emphasized the need for performance indicators that are suitable for the Islamic environment. Here, we propose that conventional and Islamic indicators actually represent two different ways of looking at an organisation. From Western perspective, performance measures such as the return on assets (ROA), return on equity (ROE) and profit margin are indicators of profitability, business strength and stability. Meanwhile the Islamic indicators show the extent to which the banks have adhered to Shariah principles. Both these measures can be combined to create a framework that helps Islamic banks to measure and benchmark their performance in terms of profitability and conformity to Shariah principles. Further, this framework can also give an indication of the strengths and weaknesses of the banks and offers strategic directions for improvement. The framework is graphically depicted in Diagram 1 below.

Diagram 1: Shariah Conformity & Profitability (SCnP) Model



The basic concept here is that Islamic banks financial performance can be measured using both conventional and Islamic financial indicators. In this context, Shariah conformity can be gauged by using the following indicators:

- Islamic investment ratio
- Islamic income ratio
- Profit sharing ratio

Meanwhile, the profitability measurement can be done using the following indicators:

- Return on asset
- Return on equity
- Profit margin ratio

Several measures of Shariah conformity are listed in the literature (refer to Maali et al, 2003). Our initial analysis of the Islamic banks' annual reports showed that while some banks provide detailed and elaborate information on most Shariah dimensions, others do not. This is consistent with Maali et al's (2003) findings. Thus, we selected only three main financial indicators that are common across all Islamic banks. The assumption here is that these indicators will serve as suitable proxies for the Shariah 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 profits margins, 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 Shariah compliance perspectives.

Upper Left Quadrant (ULQ)

Banks that fall in the Upper Left Quadrant (ULQ) will have high profitability but weak Shariah conformity. This implies that the Islamic investment, Islamic income and profit sharing ratios in these banks will be low. But the return on assets, return on equity and profit margin ratios will be high.

Lower Left Quadrant (LLQ)

Islamic banks in the Lower Left Quadrant normally will have weak Shariah conformity and low profitability. These banks will generally perform poorly in Islamic investment, Islamic income and profit sharing ratios, and will also have weak ROA, ROE and profit margin ratios.

Upper Right Quadrant (URQ)

Islamic banks in this quadrant usually will have good Shariah conformity and high profitability level. All the Islamic and conventional financial ratios will be high in these Islamic banks.

Lower Right Quadrant (LRQ)

Banks in the LRQ will have good Shariah conformity but low profitability. This means that the Islamic financial ratios will be high as opposed to low conventional ratios.

The ideal position for Islamic banks is to be in the URQ position, as this is where both Shariah conformity and profitability levels are high.

2.1 Measuring Shariah Conformity& Profitability Indices

The computation of the Shariah and Profitability indices is done by summing the individual indicators, and averaging them out with equal weightage. This ensures consistency in the treatment of the Shariah and profitability measures.

3. Methodology

This section provides discussion of the methodology employed in this paper. This discussion will highlight the Shariah conformity financial indicators and the profitability indicators.

3.1 Shariah Conformity indicators

Three major Shariah conformity indicators will be used in this study – Islamic investment ratio, Islamic income ratio and Profit sharing ratio.

3.1.1 Islamic Investment ratio

The Islamic investment ratio examines the percentage of investment invested in halal products. This is because Islamic principles encourage halal trade but prohibit any transaction that involves riba, gharar and gambling.

Only investment that is considered halal (based on Islamic principles) is utilized in computing the Islamic investment ratio. It is the bank's obligation to disclose truthfully investments that are considered halal. 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 halal. The Islamic investment ratio will be computed using the following formula:

$$\textit{Islamic investment} = \frac{\textit{Islamic Investment}}{\textit{Islamic Investment} + \textit{Non Islamic Investment}}$$

3.1.2 Islamic Income ratio

The Islamic income ratio measures the percentage of Islamic income over total income. Note that Islamic income is income derived from investments that comply with Shariah 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 Shariah need to be laid down (Shahul et al., 2003). Islamic income is calculated using the following formula:

$$\textit{Islamic income} = \frac{\textit{Islamic Income}}{\textit{Islamic Income} + \textit{Non Islamic Income}}$$

3.1.3 Profit Sharing ratio

Profit sharing is one of the main objectives of Islamic banking. The profit sharing ratio identifies how far Islamic banks have successfully met the objective of sharing wealth with investors. The formula for this ratio is:

$$\textit{Profit sharing ratio} = \frac{\textit{Mudaraba + Musyarakah}}{\textit{Total Financing}}$$

The result of the ratio will clearly show how the banks have performed in terms of profit sharing activities for the four years. The trend of movements will indicate whether it is increasing, decreasing or stagnant.

3.2 Profitability Indicators

Three major profitability indicators will be used in this study – Return on assets, Return on equity and Profit margin.

3.2.1 Return on Asset

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 the bank to generate income to average total assets. ROA shows the profit earned per dollar of assets that reflect the management ability to utilize the bank's financial and real investment resources to generate profits. The formula given below discusses this view:

$$ROA = \frac{Net\ Income}{Average\ total\ assets}$$

3.2.2 Return on Equity

Return on equity ratio (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. The formula given below discusses this notion:

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

3.2.3 Profit margin

Profit margin 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 the bank's ability to produce a product or service at a low cost or a high price. This ratio is calculated using the following formula:

$$Profit\ margin\ ratio = \frac{Net\ Income}{Total\ Operating\ Revenue}$$

3.3 Data source and Sample Banks

The data used in this study will be compiled from each Islamic bank's annual report for the period 2001 – 2004. Selection of these four years is mainly because these are the years that the annual reports are consistently accessible. A total of four banks were used as the sample of Islamic banks. Each bank is selected from one particular Islamic 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 that disclosed the required variables consistently in all the four years. For the purpose of anonymity, we have labeled the banks as Bank A, Bank B, Bank C and Bank D. Thus no banks name will be revealed in this paper.

4. Islamic Banks Financial Performance: Empirical Findings

Figure 1 shows the scatter plot chart for Islamic banks' financial performance in the year 2001. It can be seen that two banks (Bank A and Bank B) are clustered in the upper right quadrant of the chart, denoting that these banks have good Shariah conformity and high profitability. Note that Bank B's position in this quadrant very near to the borderline, approaching upper left quadrant.

Bank C is in the upper left quadrant of the chart. This shows that this bank has weak Shariah conformity but high profitability. Bank D is in the lower left quadrant of the scatter plot. This shows that the bank has weak Shariah conformity and low profitability in the year 2001.

Figure 1: Islamic Banks Financial Performance in 2001

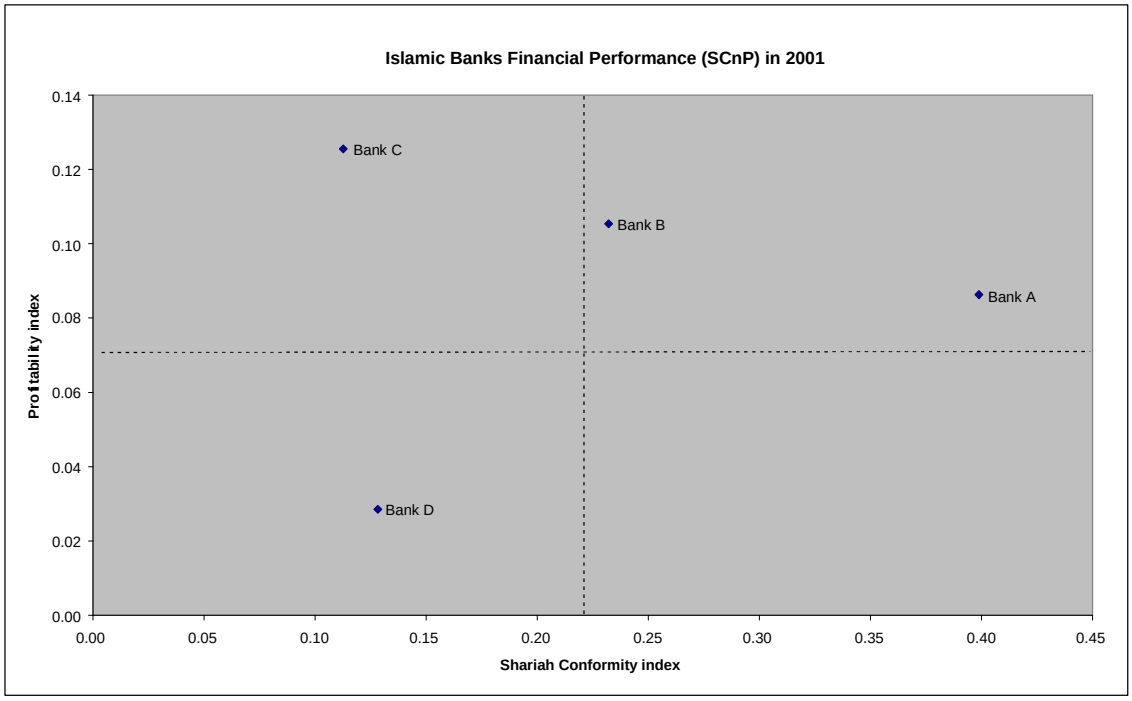


Figure 2 shows the scatter chart for the Islamic banks financial performance in the year 2002. Similar to the earlier period, Bank A is again in the upper right quadrant of the chart. It can be observed that the Shariah conformity of this bank is very good. Bank B, which was in the upper right quadrant in 2001, moved to upper left quadrant of the chart in 2002. This bank is grouped together with Bank C, which has slightly higher profitability as opposed to Bank B. We note that Bank B's Shariah compliance has dropped in this year. Bank D is still in the lower left quadrant of the chart.

Figure 2: Islamic Banks Financial Performance in 2002

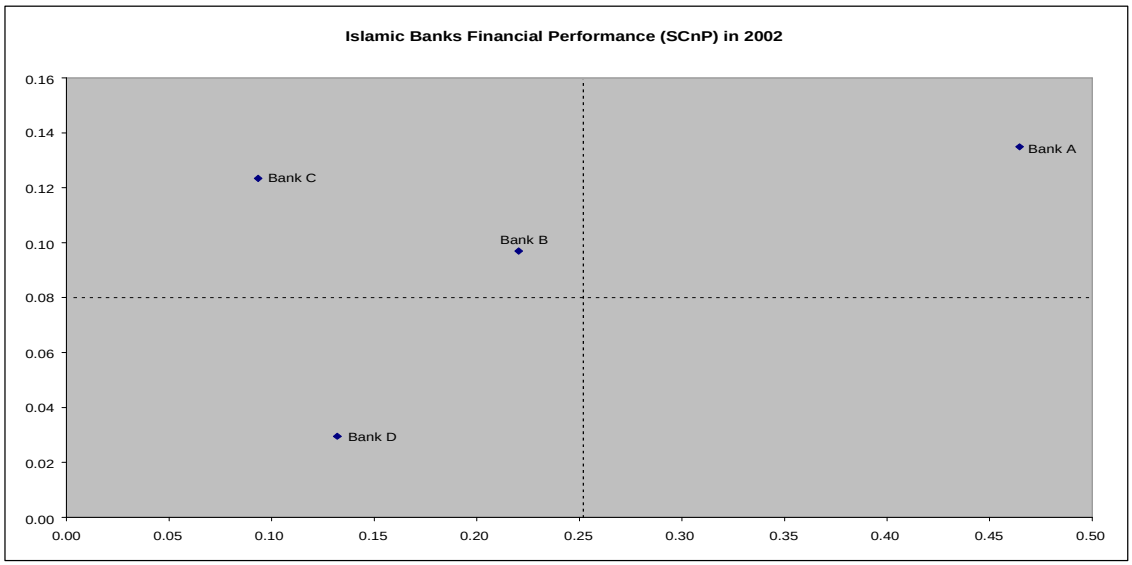


Figure 3 presents the scatter chart for financial performance of Islamic banks in 2003. Bank A is still in the upper right quadrant of the chart. Bank B and C also remain in the upper left quadrant of the chart (similar to the year 2002). Bank B's profitability has improved and it has overtaken Bank C's profitability in the year 2003. Bank D is in the lower left quadrant of the chart.

Figure 3: Islamic Banks Financial Performance in 2003

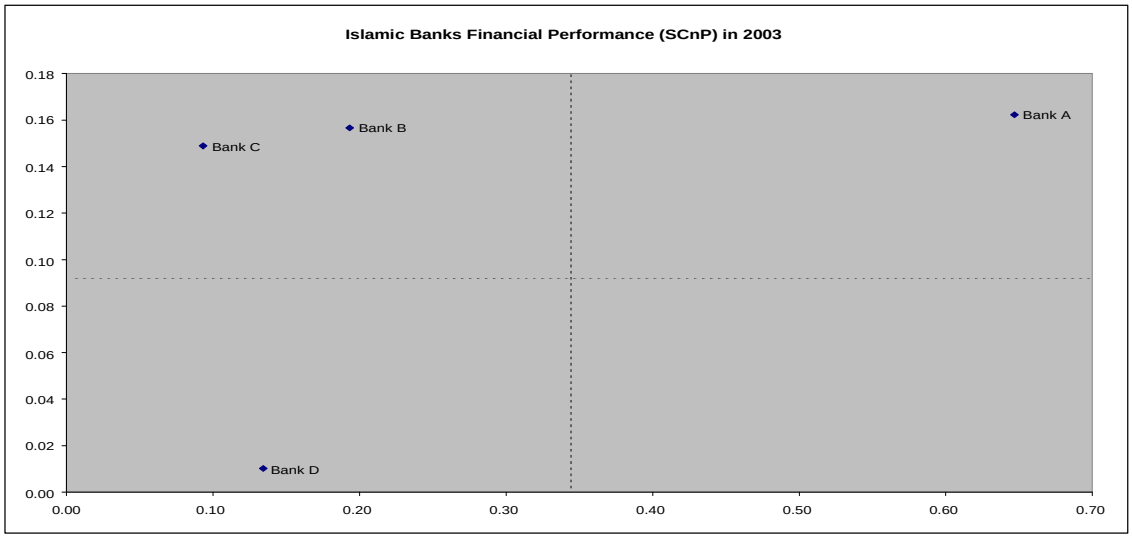
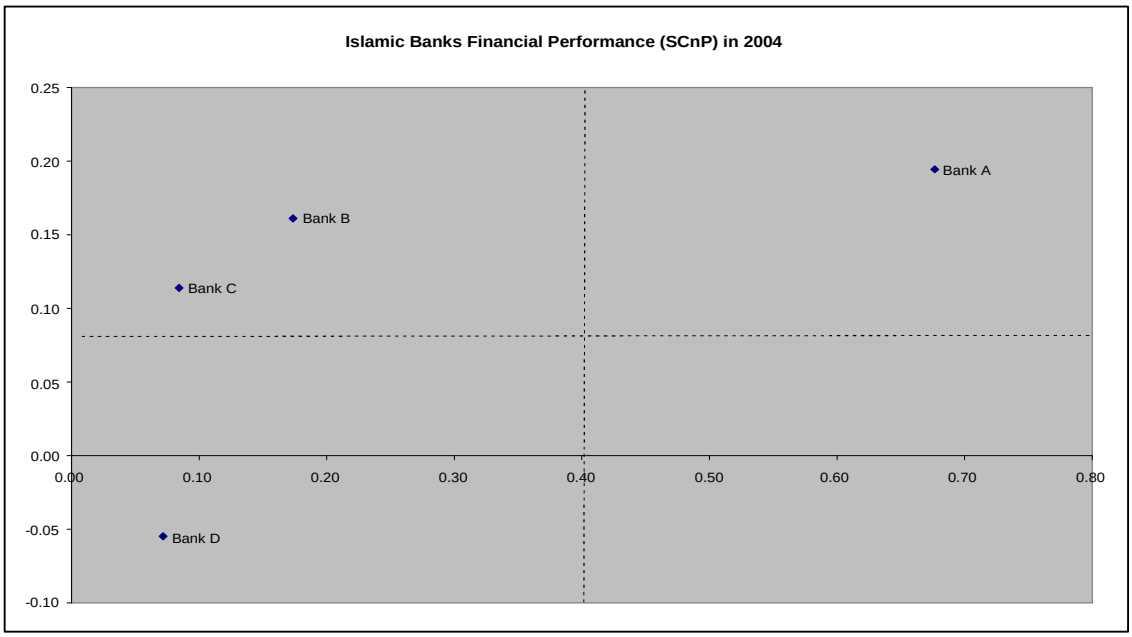


Figure 4 provides the Islamic financial performance chart for the sample banks in 2004. Based on Figure 4, we observe that not much change has taken place in terms of the Islamic banks' performance in 2004. Bank A is still in the upper right quadrant, while Bank's B and C are in the upper left quadrant of the chart in 2004. It can be seen that Bank C's profitability has declined in this year. Meanwhile, Bank D's financial performance in 2004 was in a bad shape - the profitability of this bank went down to the negative region.

Figure 4: Islamic Banks Financial Performance in 2004



4.1 Summary

Based on the above findings, a few conclusions can be made. First, we note that banks are located at different positions on the SCnP model in each year. These positions show the Islamic banks' current financial performance and Shariah conformity levels. This helps in identifying banks that have good and weak Shariah compliance, as well as low and high profitability. Subsequently, strategy formulations customized to the banks' circumstances can take place.

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

5. Conclusions

The objective of this study is to measure the performance of Islamic banks from different countries. Here, disparate conventional and Islamic performance measurement approaches are combined via the Shariah Conformance and Profitability model (SCnP). Here, different ideologies behind the two sets of measurements merge into a holistic model that provides a vital Islamic business strategic planning tool customized for the analysis, promotion and nurturing of Islamic businesses. Using this model, it is possible to identify the current position of the banks with regards to two important dimensions, namely the conformance to Shariah principles and profitability. The SCnP model separates and identifies four different types of Islamic banks, namely:

- Highly profitable banks that have good Shariah compliance
- Highly profitable banks that have weak Shariah compliance,
- Less profitable banks that have good Shariah compliance
- Less profitable banks that have weak Shariah compliance.

This model also suggests the different strategic thrusts that are appropriate for each of these firms and provides a means to assess the success of these strategic moves via ex-post analyses.

As mentioned earlier, being placed in the upper right quadrant of the chart indicates that the Islamic banks are highly profitable (high performers) and show a high level of compliance with Shariah principles. These are the ideal banks that show strong profitability levels, while in full compliance with Shariah 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 continuous investment in Shariah compliant projects such as those based on murabaha, bai bithaman ajil and ijarah.

The upper left quadrant represents banks that are very profitable, but weak in conforming to Shariah principles. Since profitability is not generally a major issue for banks in this quadrant, significant emphasis should be given to compliance with Shariah requirements. Here, banks should examine product and investment mixes while seeking to divest from non-Shariah based activities in favour of Shariah based business activities. These banks should strive to avoid business transactions that are forbidden, including activities that involve interest (riba) 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 right towards the upper right quadrant position.

Banks in the lower right quadrant conform strongly to good Shariah practices, but they suffer from poor profitability. The strategic management thrust should be to bring these firms to profitability, while maintaining the high conformance to Shariah principles. The strategies undertaken should shift the bank's position up to the top 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 conformance to Shariah principles. Strategic concern here includes addressing profitability issues and the lack of conformance. Banks in this category should examine their products for both profitability and conformance to Shariah based practices, and modify, prune, acquire or establish new lines that will effectively shift the entities upwards along a diagonal line that points to the upper right quadrant. These banks should conduct a comprehensive study of their product lines, and carefully review if forbidden (haram) products that involve riba and gharar are being offered. They should strive to replace these with Shariah compliant (halal) financial products such as those encompassing the concepts of murabaha, ijarah, musharaka and mudaraba.

In essence, this framework fulfils four purposes. First, it helps Islamic banks to assess their current positions with regards to profitability and compliance with Shariah based business practices. Secondly, it identifies weaknesses borne by the banks. Thirdly, it suggests the direction for strategic planning and action. This indicates whether the focus should be on changing product mixes to improve profitability or compliance or both. Finally, the SCnP model provides a continuous performance assessment tool that allows managers and policymakers to assess whether the strategic plans were 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 such partial success.

6. Future Research Directions

The future research directions for this study are twofold. First, this study is limited in terms of data and sample. We found that quite a number of banks in our initial sample did not disclose sufficient information regarding financial Shariah 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 Shariah compliant and conventional 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 (eg. 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 are able to provide a deeper insight into the conformance and performance 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. Indeed, one of the criticisms of current Western based accounting reports is that non-financial metrics that provide a better indication of business health and social responsibilities is missing. The incorporation of appropriate non-financial metrics in Islamic accounting provides an opportunity for Islamic accounting to get ahead of its Western counterpart.

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