Using accounting ratios to distinguish between Islamic and conventional banks in the GCC region

Dennis Olson*, Taisier A. Zoubi

School of Business and Management, American University of Sharjah, Sharjah, United Arab Emirates

Abstract

This study determines whether it is possible to distinguish between conventional and Islamic banks in the Gulf Cooperation Council (GCC) region on the basis of financial characteristics alone. Islamic banks operate under different principles, such as risk sharing and the prohibition of interest, yet both types of banks face similar competitive conditions. The combination of effects makes it unclear whether financial ratios will differ significantly between the two categories of banks. We input 26 financial ratios into logit, neural network, and k-means nearest neighbor classification models to determine whether researchers or regulators could use these ratios to distinguish between the two types of banks. Although the means of several ratios are similar between the two categories of banks, non-linear classification techniques (k-means nearest neighbors and neural networks) are able to correctly distinguish Islamic from conventional banks in out-of-sample tests at about a 92% success rate.

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1. Introduction

Since the establishment of the Dubai Islamic Bank in 1975 as the world’s first private interest-free bank, the growth of Islamic banking world-wide has been phenomenal with

* Corresponding author. School of Business and Management, PO Box 26666, American University of Sharjah, Sharjah, United Arab Emirates. Tel.: +971 6 515 3033; fax: +971 6 558 5065.
E-mail addresses: dolson_prof@yahoo.com, dolson@aus.edu (D. Olson), tzoubi@aus.edu (T.A. Zoubi).
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assets under management generally growing at annual rates of 12% to 15% per year. In Iran, Pakistan, and Sudan the entire banking industry has become Islamic and many large international banks (e.g., HSBC, BNP Paribus, Commerzbank, and Citicorp) have introduced Islamic divisions that offer separate Islamic or Sharia-compliant products within an otherwise conventional banking structure. According to the Institute of Islamic Banking and Insurance (IIBI) there were 277 Islamic banks and financial institutions operating in over 70 countries in 2005.¹ IIBI estimated that Islamic banks managed assets worth about $260 billion. Much of the initial growth in Islamic banking occurred in South Asia; however, beginning in the 1990s the primary growth area and focus of Islamic banking shifted to the countries of the Gulf Cooperation Council (GCC) region.² Molyneux and Iqbal (2005) estimate that Islamic banks in the GCC region held about 74% of Islamic banking system assets in 2002. Following the events of September 11, 2001, a considerable amount of Arab money flowed out of western countries back to the Middle East. This has further increased the dominance of the GCC region in Islamic banking world-wide.³

The principles guiding Islamic banks are significantly different from those for conventional banks. Islamic banks are organized under and operate upon principles of Islamic law (the Sharia) which requires risk sharing and prohibits the payment or receipt of interest (riba). In contrast, conventional banks are guided mainly by the profit-maximization principle. If the differences between the two types of banks are not just semantic (as some critics of Islamic finance have maintained), Islamic and conventional banks should be distinguishable from one another on the basis of financial information obtained from company balance sheets and income statements. However, since all banks operate in the same competitive environment and are regulated in the same way in most countries, it is possible that Islamic and conventional banks display similar financial characteristics.

A sizeable body of research examines the structure, operation, and management of banks in the GCC region [Turen (1995), Murjan and Ruza (2002), Islam (2003), Essayyad and Madani (2003)], while another strand of literature explains general Islamic financial principles to the non-Muslim reader [Siddiqui (1981), Bashier (1983), Khan (1985)]. With the exception of Karim and Ali (1989) and Rosly and Abu Bakar (2003), researchers have not examined the financial ratios of Islamic banks. Karim and Ali (1989) suggest that Islamic banks prefer to obtain funds from depositors rather than shareholders during expansionary periods in an economy. When combined with the requirement for risk sharing, return on equity should be higher for Islamic than for conventional banks. Rosly and Abu Bakar (2003) show that profitability (based upon return on assets, profit margin,

¹ Data are obtained from the Institute of Islamic Banking and Insurance website http://www.islamic-banking.com/ibanking/statusib.php, last updated in 2005 (Institute of Islamic Banking and Insurance, 1995).
² The GCC region consists of Bahrain, Kuwait, Oman, Saudi Arabia, Qatar, and the United Arab Emirates.
³ Hume’s (2004) estimate of Islamic bank assets of $260 billion was likely based on 2002 year-end data. At that time, GCC Islamic bank assets totaled $226 billion, or 87% of all Islamic financial system assets. To further illustrate the relative size of the GCC Islamic banking industry, Rosly and Abu Bakar (2003) report that the assets of Islamic banks in Malaysia (one of the initial predominant countries in Islamic banking) totaled $3.9 billion in 2000. In contrast, GCC bank assets in 2000 totaled US$145 billion.
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