FINANCIAL PERFORMANCE OF ISLAMIC AND CONVENTIONAL BANKS: EVIDENCE FROM JORDAN

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ABSTRACT

This article investigates the performance of Islamic banks versus conventional counterparts in Jordan over the period (2009-2013) using financial ratio analysis. A total of 16 banks (13 conventional and 3 Islamic) were considered. A comparative study is undertaken based on performance indicators, 13 financial ratios were estimated to measure performances in terms of profitability, liquidity, risk and solvency, and efficiency. T-test is used in determining their significance. The results show that there are differences in performance between Islamic and conventional banks in Jordan during study period in terms Islamic banks are less profitable, more liquid, less risky, and less efficient comparing to conventional banks. However, there was no significant difference in profitability ratios, but there was a significant difference in liquidity ratios and risk and solvency ratios between conventional and Islamic banks.

INTRODUCTION

The global expansion of Islamic finance in recent years has been spectacular. Prior to the financial crisis and according to the International Financial Service London (IFSL), Sharia compliant assets were estimated to have grown by over 10% a year from about $150 bn in the mid-1990s to $531bn by the end of 2006, with balance sheet assets of Sharia compliant banks totaled $463bn in 2006 (Elsiefy, 2013), and in 2011 total assets in Sharia-compliant financial institutions have doubled to $900 bn (Beck et al.; 2013). According to figures released by the Banker, global Islamic assets held by commercial banks exceeded US $1.8 trillion in 2013(Mallin et al., 2014). The impact of the financial crisis that originated in the United States and the euro zone hit the rest of the world (AlKulaib et al., 2013), and many investors and depositors began to worry about their investments and deposits, not only this, rather the european debt crisis that began in July 2011 is making headlines (AlKulaib et al., 2013). Therefore, the recent global financial crisis has not only shed doubts on the proper functioning of conventional ''Western'' banking, but has also increased the attention to Islamic banking, as some observers have pointed to their superior performance during the crisis (Beck et al., 2013).

Islamic banking has grown unabated since its inception in the mid-1970s. The industry has increasingly carved out a significant slice of the global financial market (Mallin et al., 2014). As one of the fastest growing sectors in the global financial services in the past three decades, Islamic finance has become noticeably significant in many countries, and consequently has gained enormous recognition and credibility worldwide. This evolution and widespread practice of Islamic finance has generated interest and discussions among both economists and policy makers about the practicality and viability of Islamic banking model especially on the back of the current financial, where which banks were one of its major players (Elsiefy, 2013). Islamic banks are therefore no longer limited to traditional Muslim regions, rather there are more than 300 Islamic financial institutions spread across 70 countries such as Malaysia and

several Middle Eastern countries (Beck et al., 2013). Indeed, there are 5 Islamic banks in the UK, and 19 Islamic financial institutions in the USA (Mobarek and Kalonov, 2014).

Conventional banking are based on interest, while Islamic banking follows Islamic Shariah as the basis of operation (Siraj and Pillai, 2012), that is based on three main prohibition practices, i.e. Riba (Interest), Gharar (Uncertainty), and Maysir (Betting) (Amba and Almukharreq, 2013; Beck et al.; 2013). That is, Islamic banking follows an equity approach than interest-based approach in both deposit and lending. Hence, to be able to compete with conventional banks, Islamic banks have to offer financial products that are comparable to the ones offered by conventional banks. This exposes Islamic banks to similar credit, liquidity and risks driven by market instability. Despite that, Islamic banks managed to remain stable at the early phases of the crisis that was driven by the fact that Islamic bank's financing activities are more focused towards real economic activities. Second, conventional bank financial instruments such as Collateralized Debt Obligation-CDO, Cash Management bill-CMOs and Credit Default swap-CDOs considered as contributors to the financial crisis, where such instruments has no place among Islamic banks. Moreover, larger proportions of assets in Islamic banks are in illiquid form than their conventional counterparts. In addition, the absence of Lender of last resort facility and lack of interbank market to Islamic banks resulted in excess liquidity requirement.

Liquid asset ratio of Islamic banks in GCC for the year 2007 had been at a high of 21.14 percent according to the Council of Islamic Banks and Financial Institutions (Amba and Almukharreq, 2013). Therefore, the evaluation of bank performance is important for depositors, investors, managers, and regulators, and if banks are efficient, then we might expect improved profitability, greater amount of funds intermediated, better prices and service quality for consumers, and greater safety and soundness if some of the efficiency savings are applied towards improving capital buffers that absorb risk (Mohamad et al., 2008). In contrast, negative bank performance attracts the attention of investors; raising questions such as whether banks can continue operations and which banks will face hard economic conditions (AlKulaib et al., 2013). Other primary features of Islamic banks which stand as a huge difference between Islamic banks and their conventional counterparts are profit and loss sharing structure of Islamic banks, balance sheet and treatment of debt-based assets (Elsiefy, 2013). Proponents of Sharia-compliant financial services point to clear differences in business models of Islamic and conventional banks and to higher efficiency and stability of Islamic banks, rather critics argue that conventional and Islamic banks might be different in form but are similar in substance and that Islamic banks do not have any advantages in efficiency and stability (Beck et al.; 2013).

Despite the increasing debate on advantages and disadvantages of Islamic and conventional banks and the rapid growth of Islamic banks mainly in Muslim countries, rather there are relatively few empirical studies that analyze the performance of Islamic banks versus conventional ones (Mobarek and Kalonov, 2014). Jordan is no exception as a small Middle Eastern country where Islamic banks have started operating three decades ago (Ajlouni and Omari, 2013).In Jordan both conventional banking and Islamic banking operates and offer its various products and services. In light of the new opportunities as well as challenges facing Islamic banks, the objective of this paper is to assess performance of conventional and Islamic banks in Jordan using the financial ratio analysis during the period (2009-2014). Particularly, we compare efficiency of both bank-groups in terms of return on equity, return on assets, and other performance indicators derived from banks income statement and balance sheets. The article is organized as follows. Section 2 provides a brief literature review focused on measuring performance of Islamic banks in comparison with conventional banks. In sections 3 description of the methodology is provided. Data and empirical hypothesis are discussed in section 4. The results are presented in section 5 and finally, section 6 concludes.

LITERATURE REVIEW

The existing literature on analyzing Islamic versus conventional banks performance can be classified into three strides: first, studies that analyze the efficiency level using two approaches, the nonparametric frontier analysis such as Data Development Analysis(DEA) and Stochastic Frontier Analysis (SFA); second, studies testing financial stability using supervisory rating system or soundness indicators, and finally studies examining financial situation using traditional ratio analysis (Mobarek and Kalonov, 2014). Studies using frontier approaches to estimate banks financial efficiency was found in Bader (2008), Hassan et al. (2009), Grigorian and Manole (2005), Mokhtar et al. (2006), El-Gamal and Inanoglu (2005), where no significant difference in efficiency exist between Islamic and conventional banks using methods of DEA or SFA . In addition, Bader (2008) and Hassan et al. (2009) found no differences in efficiency between Islamic and conventional banks for Jordan using DEA. While Al-Muharrami (2008) found that Islamic banks are significantly more efficient than conventional banks using DEA among Gulf Cooperation Council Countries (GCC), rather Srairi (2010) and Mokhtar et al. (2007, 2008) found that Islamic banks are significantly less efficient than conventional banks using SFA and DEA in GCC countries and Malaysia respectively (Johnes et al., 2014). Abdul-Majid et al. (2010), Johnes et al. (2009) and Abdul-Majid et al. (2008, 2011a,b) found that Islamic banks have (significantly) lower efficiency than conventional banks as a consequence of modus operandi rather than managerial inadequacies. Moreover, Abdul-Majid et al. (2010) discussed that Islamic banks in Jordan have (significantly) lower efficiency than conventional banks and it is predominantly a consequence of modus operandi rather than managerial inadequacies (Johnes et al., 2014).

Said (2012), Al-Jarrah and Molyneux (2005) and Hussein (2004) compared the efficiency of Islamic and conventional banks; rather the significance of any difference is not tested. In addition, Al-Jarrah and Molyneux (2005) compared the efficiency of Islamic and conventional banks and the significance of any difference was not tested for Jordan (Johnes et al., 2014). Rosman et al. (2014) showed that the majority of Islamic banks among Middle Eastern and Asian countries (79 banks during 2007–2010) were operating inefficiently at decreasing returns to scale using DEA, and found both profitability and capitalizations were main determinants of Islamic banking efficiency. According to Beck et al. (2013), Islamic banks were found to be better capitalized, have higher asset quality and are less likely to disintermediate during crises. Chaker and Salih (2010) examined the performance of Islamic banks versus conventional banks in UAE using financial ratio methodology and found that performance of Islamic banks during the global financial crisis was better than conventional banks in terms of higher profitability ratio, liquidity ratio, and market or earnings per share ratio.

The performance of Islamic banks relative to conventional banks varied according to financial indicators employed and across the studies. Ben Khediria et al. (2015) revealed that Islamic banks are, on average, more profitable, more liquid, better capitalized, and have lower credit risk than conventional banks. For Alrawashedh et al., (2014), most of the studies on Malaysian banking system used the financial ratios analysis generally without focusing on which ratio is more significant and useful to study the differences between two types of financial institutions. Islamic banks are found to outperform conventional banks in terms of overall productivity as measured by an income-to-expenditure ratio, and profitability as measured by Return-on-Equity (ROE). Islamic banks have higher growth in equity, deposits, investment and total assets, better asset quality and capital adequacy, better credit performance, less risk due to excess liquidity and greater investment in government securities (Abdul-Majida et al., 2011).

Najjar (2013) analyzed the financial performance of conventional and Islamic banks in Bahrain using financial ratios that define profitability, financial performance, size and type of banks, and compared these banks performance in context of the global financial crisis. The analysis of ratios showed differences in financial management practices of banks and reveals wide differences in ratios used by different banks, especially before and after the financial crisis the study concluded. The analysis of ratios

for measuring financial performance shows that there is corporate excellence in asset management and value equity shares. Olson and Zoubi (2008) used 26 financial ratios to distinguish between conventional and Islamic banks among Gulf Cooperation Council (GCC) region on the basis of financial characteristics. The results show that profitability, efficiency, asset-quality indicators, and cash/liability ratios are all good discriminators between Islamic and conventional banks in the GCC region. Ajlouni (2013) and by using both approaches of Malmquist Data Envelopment analysis and financial ratio Analysis during the period (2005-2009) found that Jordanian Islamic banks are constantly efficient in terms of their inputs producing actual outputs, but still both banks did not show significance variation of performance. Samad and Hassan(2013) evaluated inter temporal and interbank performance of Bank Islam Malaysia Berhad (BIMB) in profitability, liquidity, risk and solvency and community involvement for the period (1984-1997) using financial ratios and found that (BIMB) is relatively more liquid and less risky compared to a group of 8 conventional banks.

Siraj and Pillai (2012) compared performance of conventional and Islamic banks operating in GCC region during (2005-2010), based on performance indicators such as OER, NPR, ROA, ROE, EOA, operating expense, profit, assets, operating income, deposits and total equity. Inferences based on analysis revealed better performance of Islamic banking during the study period and concluded that Islamic banks are more equity financed than conventional banks, and the performance indicators were affected by the financial crises. Yudistira (2004) measured efficiency and stability of Islamic banks using Data Envelopment Analysis. The results showed that inefficiency across eighteen Islamic banks is small in comparison to many conventional counterparts and there are diseconomies of scale for small-to-medium Islamic banks that suggest mergers to be encouraged. TUREN (1996) investigated quantitatively at a micro level the claim that Islamic banking offers high performance and stability in Bahrain. The financial ratio and stock analysis indicate that Islamic Banks offers higher return and lower coefficient of variation than other commercial banks. Abu-Alkheil et al. (2013) used accounting ratio analysis to measure financial performance of European Islamic Investment Bank (EIIB) during (2005–2008). The results suggest that Islamic banks in Europe experience lower cost efficiency, higher allocative inefficiency and poor, but relatively better, technical efficiency compared to conventional banks.

The efficiency and performance of Islamic Bank in comparison to two conventional banks (public and private) banks were analyzed by Akhter et al. (2011) for the financial years (2006-2010) in Pakistan using financial ratios as profitability, liquidity and credit risk. The study concluded no significant difference was observed in interest free and interest based banking in respect of profitability, while there exit divergence in liquidity and credit performance. AlKulaib et al. (2013) evaluated comparative performance of Kuwaiti Islamic banks and conventional commercial banks during and after the financial crisis of 2008 period with respect to profitability, liquidity risk, credit risk, structural ratios, risk ratios, and market ratios. Empirical results showed that Islamic banks outperformed conventional banks in terms of liquidity measured by current ratio, but no statistically significant difference in terms of profitability. Moreover, Islamic banks have significantly lower deposit liabilities to assets, loans to assets, and loans to deposit liabilities ratios. In general, conventional banks seemed to have less systematic risk than Islamic banks.

The performance of Islamic and conventional banks efficiency in Malaysia was compared using financial ratios by Alrawashedh et al. (2014) and the capital ratios set was the most significant financial ratios. Assets quality ratios set has only one significant ratios. Operation ratios, profitability ratios and liquidity ratios set have same number of significant ratios where each set has two significant ratios. Widagdo and Ika (2008) investigated financial performance of Islamic banks before and after proscribing of interest using various financial ratios categorized as profitability, liquidity, risk and solvency, and efficiency. The results showed financial performance of Islamic banks before and after proscribing of interest do not show statistical difference. From the previous review, it is noted that the financial characteristics of the banking system are widely used to evaluate the performance and efficiency of the banks and various approaches have been used to determine the efficiency of banks. Therefore, with the border between

conventional and Islamic entities becoming clearer and as there are scarcity of studies concerned with Jordanian Islamic banks' performance, this paper attempts to investigate if there is any difference in performance between conventional and Islamic banking during the period (2009-2013).

DATA AND METHODOLOGY

The financial ratio method was early used in the 1970s by O'Connor (1973) and Libby (1975) and are used for all kinds of purposes such as assessment of the ability of a firm to pay its debts, evaluation of business and managerial success and even statutory regulation of a firm's performance (Barnes, 1987). Since banking firms are not equal in assets, market capital, deposits, and loans, the use of ratios removes any disparities and sets banks at par (AlKulaib et al., 2013). Therefore, financial ration analysis compensates for bank disparities. Ratio analysis is a useful tool for business owners as it measures the health and performance of the business (whether it is a bank or a multinational corporation) in terms of profitability, asset utilization, liquidity, leverage, or market valuation to diagnose potential problems and to see how well it is doing over time (Najjar, 2013).

In this study a comparison of performance between Islamic and conventional banks for the period (2009-2013) will be studying using financial ratios such as profitability, liquidity, risk and solvency, and efficiency ratios. The sample of this study consists of data for all banks in Jordan listed in Amman Stock Exchange (ASE) and have available continuous series of accounting and financial information. The study sample consists of 16 banks, 3 Islamic banks and 13 conventional banks. Financial information from (2009-2013) is used to analyze, except for Jordan Dubai Islamic bank, the information will be used from 2010 to 2013 as it started to work in Jordan in 2010. Table 1 below shows name of banks in the study and date of establishment. The data were obtained from banks annual financial statements in order to assess banks performance. In addition, the study utilized data collected from secondary sources such as as annual reports of commercial banks in Jordan for the period of (2009-2013).It is noteworthy to mention that Islamic banks are purely performing Islamic banking and conventional banks are only workings as traditional banking. No interaction of operations between banks in Jordan until now.

Table 1: Name of Banks in the Study

Conventional Banks	Date of Establishment	Islamic Banks	Date of Establishment
1-Arab Bank	1948	1- Jordan Islamic Bank	1978
2-Jordan Ahli Bank	1955	2-Islamic International Arab Bank	1998
3- Bank of Jordan	1960	3-Jordan Dubai Islamic Bank	2010
4- Cairo Amman Bank	1960		
5- The Housing Bank For Trade and Finance	1973		
6- Jordan Kuwait bank	1976		
7- Jordan Commercial bank	1977		
8- Arab Jordan Investment Bank	1978		
9- Bank Al- Etihad	1978		
10- Arab Banking Corporation	1990		
11- Invest Bank	1982		
12- Capital Bank of Jordan	1995		
13- Societe Bank of Jordan	2000		

This table shows bank sample in the study.

H1: There is a significant difference in profitability between Islamic banks and conventional banks in Jordan.

H2: There is a significant difference in liquidity between Islamic banks and conventional banks in Jordan.

H3: There is a significant difference in risk and solvency between Islamic banks and conventional banks in Jordan.

H4: There is a significant difference in efficiency between Islamic banks and conventional banks in Jordan.

The main research question is whether differences in performance between Islamic and conventional banks in Jordan do exist. In order to compare Islamic banks performance with conventional banks over 5 years period, the study used 12 financial ratios for banks' performance broadly categorized into five sub groups; (1) profitability ratios,(2) liquidity ratios,(3) risk and solvency ratios and (4) efficiency ratios.

A. Profitability Ratios: Profitability measures indicate measuring managerial efficiency (Samad and Hassan, 1999) and is reflected into various indicators that include Return on Asset (ROA), Return on Equity (ROE), (Mangla and Rehman, 2010) and banks efficacy (Ajlouni and Omari, 2013) and Profit to Total Expenses (PER). Higher profitability ratios indicate better performance of the bank.

Return on Asset (ROA) = Profit after Tax/ Total Asset: Return on Assets (ROA) is a good and common measure of performance and profitability (Wasiuzzaman and Gunasegavan, 2013; Najjar, 2013; Mallin et al., 2014; Elsiefy, 2013, Amba and Almukharreq, 2013; AlKulaib et al., 2013; Samad and Hassan, 1999; Mangla and Rehman, 2010).The ratio is widely used as a proxy for profitability and is an important tool for indicating operational efficiency of the bank (Siraj and Pillai, 2012).

Return on Equity (ROE) = Profit after Tax/ Equity Capital: This ratio is a primary indicator for performance and profitability of an organization (Wasiuzzaman and Gunasegavan, 2013; Siraj and Pillai, 2012), and measures earnings per dollar equity capital (Samad and Hassan, 1999).

Profit Expense Ratio (PER) = Profit/Total Expense: The ratio measures the amount of operating profit earned for each dollar of operating expense (Moin, 2008). High PER indicates that a bank is cost efficient and makes higher profit with a given expense (Samad and Hassan, 1999).

B. Liquidity Ratios

Liquidity refers to the ability of a firm to meet its obligations in the short run, usually one year. Liquidity ratios are generally based on the relationship between current assets and current liabilities (Najjar, 2013). There are several measures of liquidity; in this study we will use the following ratios:

Cash Deposit Ratio (CDR) = Cash/Deposit: Cash to deposit ratio is one of the liquidity measures (Ajlouni and Omari, 2013; Samad and Hassan, 1999). Cash in a bank vault is the most liquid asset of a bank. Therefore, a higher CDR indicates that a bank is relatively more liquid than a bank with lower CDR. Depositors' trust to bank is enhanced when a bank maintains a higher cash deposit ratio (Samad and Hassan, 1999).

Loan Deposit Ratio (LDR) = Loan/Deposit: Loan to deposit ratio is one of liquidity measures (Ajlouni and Omari, 2013; Samad and Hassan, 1999; Moin, 2008; Ansari and Rehman, 2011; Widagdo and Ika, 2008) and used to compare Islamic and conventional banks performance (Beck et al., 2013). A higher loan deposit ratio indicates that a bank takes more financial stress by making excessive loan. Therefore, lower loan deposit ratio is always favorable to higher loan deposit ratio (Samad and Hassan, 1999).

Current Ratio (CR) = Current Asset (CA) / Current Liability (CL): Current ratio is an excellent diagnostic tool, because it measures whether or not the business has enough resources to pay its bills over the next 12 months (Najjar, 2013). It is used by (Samad and Hassan (1999); Ansari and Rehman (2011);
Kakakhel et al. (2013) and Widagdo and Ika, (2008) to compare liquidity between Islamic and conventional banks. It indicates how the bank management has been able to meet current liability i.e. demand deposit with current asset. A high ratio is an index that a bank has more liquid asset to pay back

the trust (deposit) of the depositors. Therefore, as withdrawals significantly exceed new deposits, banks usually recourse to replace this shortage of funds by selling securities.

Current Asset Ratio (CAR) = Current Asset/Total Asset: Current asset ratio is calculated by having the share of current asset from total asset. High CAR indicates that a bank has more liquid asset. A lower ratio is a sign for illiquidity as more of the assets are long term in nature (Samad and Hassan, 1999; Ajlouni and Omari, 2013; Ansari and Rehman, 2011; Widagdo and Ika, 2008) used this ratio as a liquidity measure.

Risk and Solvency Ratios: Risk and solvency ratios are long-term solvency ratios intended to address banks' long term ability to meet obligation or more generally its financial leverage (Ross et al. 2010).These ratios include Debt Equity Ratio (DER), Debt to Total Assets Ratio (DTAR), Equity Multiplier Ratio (EM) and Loan to Deposit Ratio (LDR).

Debt Equity Ratio (DER) = Debt/Equity Capital: Debt equity ratio is considered as risk and insolvency indicator as in (Ajlouni and Omari, 2013), (Ansari and Rehman, 2011), (Kakakhel et al.2013) (Samad and Hassan, 1999) (Moin, 2008) as risk and insolvency indicators. Bank capital can absorb financial shock. In case asset values decrease or loans are not repaid, bank capital provides protection against those loan losses. A lower DER ratio is a good sign for a bank.

Debt to Total Asset Ratio (DTAR) = Debt/Total Asset: Debt/Total asset indicates the financial strength of a bank to pay its debtor. It is used as a risk measure (Samad and Hassan, 1999) (Ansari and Rehman, 2011), (Kakakhel et al., 2013). A high DTAR indicates that a bank involved in more risky business.

Equity Multiplier (EM) = Total Assets/Share Capital: The equity multiplier is a risk ratio that measures banks' total assets relative to stockholders' equity. That is, the amount of assets per dollar of equity capital. The higher the equity multiplier, the higher the financial leverage of the bank, which means that the bank relies more on debt to finance its assets than on equity (Elsiefy, 2013). A higher EM indicates that the bank has borrowed more funds to convert into asset with the share capital; therefore, higher value of EM indicates greater risk for a bank (Samad and Hassan, 1999).

Loan to Deposit Ratio (LDR): It is defined as the ratio between a bank's total loans and total deposits. The loan to deposit ratio is used to calculate lending institution's ability to cover withdrawals made by its customers.

D. Efficiency Ratios

Efficiency ratios reflect the productivity of a bank in terms of how efficient and effective the banks are in managing its assets to generate the highest possible return in light of banks risk profile (Elsiefy, 2014).These ratios include the following ratios:

Asset Utilization Ratio (AU) = Total Revenue/Total Asset: It's an efficiency measure on how effectively banks are well in utilizing all of its assets (Moin, 2008; Widagdo and Ika, 2008; Elsiefy, 2014).

Income Expense Ratio (IER) = Total Income/ Total Operating Expenses: It is an efficiency measure showing the relationship between company income and total expense. The higher the income expense ratio, the higher is efficiency (Moin, 2008).

Operating Efficiency Ratio (OE) = Total Operating Expense/Total Operating Revenue: This ratio indicates how efficiently firm uses its assets, revenues and in minimizing their expenses (Widagdo and Ika, 2008). Lower operating efficiency ratio is preferred over higher operating efficiency ratio as lower

operating efficiency ratio indicates that operating expenses are lower than operating revenues (Moin, 2008).

RESULTS

This part presents the findings of the study which aims to compare performance of both Islamic and conventional banks. Each ratio in this study was calculated for every year for all banks, then the average of these ratios were performed to every bank among the five years as follows. Table (2) shows the average ratios of Jordanian Islamic and conventional banks for every year during the period (2009 - 2013).A total of 13 financial ratios were estimated to measure banks performance in terms of profitability, liquidity, risk and solvency, and efficiency. In this table we can see that ROA for conventional banks is higher than ROA for Islamic banks over the period of study, but for ROE Islamic banks is higher than conventional banks in 2011, 2012, 2013 respectively, but the average of ROE is higher for conventional banks. The PER conventional banks higher than Islamic banks except in 2011, Islamic banks PER in 2011 is 47.79% but 42.50% for conventional banks. The overall results report that profitability ratios for conventional banks are higher than profitability ratios for Islamic banks.

For liquidity ratios CDR, CR, CAR Islamic banks are higher than that for conventional banks during time horizon of the study, which indicates more liquid condition for Islamic banks than the conventional banks. The LDR of both sets of bank show almost similar results. Higher liquidity for Islamic banks is consistent with its lower risk as shown in table 2; DER for Islamic banks are increasing from year 2009 to 2013 but still lower than DER for conventional banks DTAR for Islamic banks show almost similar results during the period of the study but lower than DTAR of conventional banks, and the average of Islamic banks DTAR are lower than the average of conventional banks (DTAR). Finally, average of Islamic banks EM is lower than (EM) average for conventional banks. Regarding efficiency ratios, the AU of conventional banks' are constantly higher than Islamic banks' AU during time horizon of the study; Islamic banks AU had increased during the year 2009 to 2013 and reached 4.13% in 2013, which indicate improving in the efficiency for Islamic bank. The average of IER for conventional banks is higher than the average of IER for Islamic banks. The highest IER for Islamic banks is 1.62 in 2011 compared to 1.59 for Islamic banks. Finally, average of Islamic banks OE is higher than the OE average of conventional banks, Islamic banks OE is higher than OE for conventional banks during the years 2009, 2010, 2012, 2013, which indicates better efficiency for conventional banks, except in 2011, the OE reached 62.76% for Islamic banks compared to 65.74% for conventional banks, that is, better efficiency for Islamic banks in that year.

H1: There is a significant difference in profitability between Islamic and conventional banks. To test this hypothesis; independent sample t-Test was applied to explore significant differences among profitability ratios (ROA, ROE, PER) between Islamic and conventional banks. Table (3) shows the results. Table (3) shows no statistical significant differences in profitability ratios (ROA, ROE, and PER) between Islamic and conventional banks, where "t" values do not meet the level of statistical significance of (0.05).Therefore, the first hypothesis was rejected and the alternative hypothesis is accepted to read as follows: "There are no significant differences in profitability between Islamic and conventional banks". This result is consistent with Samad and Hassan (1999), Ansari and Rehman, (2011), Abu Loghod (2010), Widagdo and Ika (2008), Samad (2004), and Kader, et al. (2007). Profitability of banks is calculated by using three profitability measures ROA, ROE, and PER, therefore the higher the profitability ratios, the better are the performance of the bank. The results show that the mean of ROA, ROE and PER for conventional banks mean of ROA, ROE and PER are slightly higher than Islamic banks during (2009-2013). However, the difference is not statistically significant at.05 significance level. Hence, H1 is rejected and states that there is no significant difference in profitability between Islamic and conventional banks.

Table 2: Average Ratios of Jordanian Islamic and Conventional Banks from (2009-2013)

Ratios	Bank Type	2009	2010	2011	2012	2013	AVG
Profitability							
ROA	Conventional	1.18%	1.31%	1.11%	1.28%	1.35%	1.25%
	Islamic	0.59%	0.15%	1.15%	0.88%	0.94%	0.74%
ROE	Conventional	8.58%	9.39%	8.00%	8.95%	9.65%	8.91%
	Islamic	6.35%	5.84%	10.05%	9.68%	10.76%	8.54%
PER	Conventional	48.93%	55.13%	42.50%	48.37%	63.59%	51.70%
	Islamic	32.35%	26.86%	47.79%	34.87%	40.50%	36.48%
Liquidity							
CDR	Conventional	35.92%	34.70%	29.89%	31.70%	29.27%	32.30%
	Islamic	56.78%	57.94%	52.85%	40.95%	42.78%	50.26%
LDR	Conventional	63.00%	60.81%	61.16%	64.27%	61.66%	62.18%
	Islamic	62.61%	59.80%	61.91%	73.82%	74.32%	66.49%
CR	Conventional	0.36	0.35	0.30	0.32	0.29	0.32
	Islamic	1.33	1.38	1.31	0.97	1.01	1.20
CAR	Conventional	26.33%	26.15%	22.58%	23.17%	21.05%	23.86%
	Islamic	45.67%	45.18%	43.05%	33.44%	35.43%	40.55%
Risk & Solvency							
DER	Conventional	6.16	6.18	6.21	6.06	6.31	6.19
	Islamic	2.70	2.78	3.11	3.16	3.14	2.98
DTAR	Conventional	85.43%	85.55%	85.44%	84.93%	85.50%	85.37%
	Islamic	30.66%	30.78%	28.84%	30.56%	30.38%	30.24%
EM	Conventional	7.17	7.18	7.24	7.10	7.35	7.21
	Islamic	1.46	1.44	1.42	1.46	1.46	1.45
LDR	Conventional	63.00%	60.81%	61.16%	64.27%	61.66%	62.18%
	Islamic	62.61%	59.80%	61.91%	73.82%	74.32%	66.49%
Efficiency							
AU	Conventional	4.39%	4.25%	4.45%	4.51%	4.22%	4.37%
	Islamic	2.81%	2.21%	3.98%	3.89%	4.13%	3.40%
IER	Conventional	1.78	1.73	1.59	1.66	1.88	1.73
	Islamic	1.37	1.32	1.62	1.45	1.58	1.47
OE	Conventional	59.78%	61.58%	65.74%	61.62%	55.68%	61.53%
	Islamic	80.56%	100.29%	62.76%	72.39%	66.89%	76.58%

This table shows average ratios of banks under this study.

Table 3: Sample T-test for Differences in Profitability Ratios between Islamic and Conventional Banks

Profitability Ratios	Bank Type	Num	Mean	Standard. Deviation	"t" value	Sig
Return on Asset (ROA)	Conventional	13	1.25%	0.004	1.762	0.100
	Islamic	3	0.74%	0.005		
Return on Equity(ROE)	Conventional	13	8.91%	0.034	0.140	0.891
	Islamic	3	8.54%	0.073		
Profit to Total Expenses (PER)	Conventional	13	51.70%	0.188	1.150	0.269
	Islamic	3	36.50%	0.294		

This table shows sample t test for profitability ratios. ** indicates *significance at 5 percent level* for *difference in means.*

H2: There is a significant difference in liquidity between Islamic and conventional banks.

To test this hypothesis, independent sample t-Test was applied to explore significant differences in liquidity ratios (CDR, LDR, CR, CAR) between Islamic and conventional banks as shown in table (4). Table (4) shows that there are statistical significant differences in liquidity ratios (cash deposit ratios, current ratio and current assets ratio) between Islamic and conventional banks, where "t" values reach to the level of statistical significance (0.05).Therefore, the second hypothesis was accepted. This result is consistent with Ansari and Rehman (2011), Samad and Hassan (1999), Al-Mamun et al., (2014). There are statistical significant differences in cash deposit ratios (CDR), where t. value reached (3.741) by statistically significant (0.002), in favour of Islamic banks (mean 51%), but conventional (32%). There are statistical significant differences in current ratio (CR) where t. value reached (11.540) by statistically significant level (0.00) in favour of Islamic banks (mean 1.20), but (0.032) for conventional banks. There

are statistical significant differences in current assets ratio (CAR), where t. value reached (3.647) by statistically significant level (0.003) in favour of Islamic banks (mean 41%), but conventional (24%).

Table 4: Result of Independent Sample T-test for Differences in Liquidity Ratios between Islamic and Conventional Banks

Liquidity Ratios	Bank Type	Num	Mean	Standard. Deviation	"T" Value	Sig
Cash Deposit Ratio (CDR)	Conventional	13	32%	0.06	-3.741	0.002**
	Islamic	3	51%	0.15		
Loan Deposit Ratio (LDR)	Conventional	13	62%	0.08	-0.446	0.662
	Islamic	3	66%	0.29		
Current Ratio (CR)	Conventional	13	0.32	0.06	-11.540	0.000**
	Islamic	3	1.20	0.28		
Current Assets Ratio (CAR)	Conventional	13	24%	0.04	-3.647	0.003**
	Islamic	3	41%	0.17		

This table shows sample independent t test for liquidity ratios. ** indicates *significance at 5 percent level* for difference in means.

There are no statistical significant differences in loan deposit ratio (LDR) between Islamic and conventional banks, where "t" values did not reach to the level of statistical significance (0.05). The LDR of Islamic banks is lower than conventional banks' during 2009 and 2010. The LDR of Islamic banks is the same as LDR for conventional banks in 2011, but LDR of Islamic banks is higher than conventional bank's LDR during 2012 and 2013, the reason is lower amount of deposits for a new Islamic bank as Jordan Dubai Islamic Bank.

H3: There is a significant difference in risk and solvency between Islamic and conventional banks.

To test this hypothesis, independent sample t-test was applied to explore significant differences in risk insolvency ratios (DER, DTAR, EM, LDR) between Islamic and conventional banks as shown in table (5). Table (5) shows that there are statistical significant differences in risk solvency ratios (DER, DTAR, EM) between Islamic and conventional banks, where "t" values reached a level of statistical significance of (0.05). Average DER, DTAR and EM for Islamic banks are (2.98%), (30.24%), (1.45%) as compared to (6.19%), (85.37%), (7.21%) for their conventional counterparts respectively. This indicates that Islamic banks are less risky than conventional bank, which is consistent with Samad and Hassan (1999), Al-Mamun et al., (2014) and Moin (2008). There are no statistical significant differences in loan deposit ratio between Islamic and conventional banks, where "t" values did not reach the level of statistical significance (0.05), and this is consistent with Moin (2008) and Pual et al., (2013).

Table 5: Independent Sample T-test for Differences of Risk and Solvency Ratios Between Islamic and Conventional Banks

Risk and Solvency Ratios	Bank Type	Num	Mean	Standard. Deviation	"T" Value	Sig
Debt Equity Ratio (DER)	Conventional	13	6.19%	1.30	3.529	0.003**
	Islamic	3	2.98%	1.99		
Debt to Total Assets Ratio (DTAR)	Conventional	13	85.37%	0.02	21.148	0.000**
	Islamic	3	30.24%	0.09		
Equity Multiplier (EM)	Conventional	13	7.21	1.29	7.490	0.000**
	Islamic	3	1.45	0.19		
Loan Deposit Ratio (LDR)	Conventional	13	62%	0.08	-0.446	0.662
	Islamic	3	66%	0.29		

This table shows sample independent t test for risk and solvency ratios. ** indicates *significance at 5 percent level* for difference in means.

H4: There is a significant difference in efficiency between Islamic and conventional banks. To test this hypothesis, independent sample t-test was applied to explore significant differences in efficiency ratios (AU, IER and OE) between Islamic and conventional banks as in table (6).

Table (6) shows that there are statistical significant differences in (AU), where t- value reached (2.283) by statistically significant rate of (0.039), in favour of conventional banks (mean 4.37%), but (3.40%) for Islamic banks. These results are consistent with Moin (2008). Moreover, there are no statistical significant differences in efficiency ratios IER and OE between Islamic and conventional banks, where "t" values did not reach the level of statistical significance (0.05); but the mean of IER equal (1.73%) for conventional banks is higher than the mean of (IER) for Islamic banks. The higher the ratio, the higher efficiency are conventional banks .In the other side the mean of OE for conventional banks is lower than the mean of OE for Islamic banks, which reflects better efficiency for conventional banks , which is in coherence with Kakakhel et al. (2013) and Moin (2008).. Conventional banks in Jordan have a very long history and great experience which lead to better performance.

Table 6: Independent Sample T-test for Differences of Efficiency Measures between Islamic and Conventional Banks

Efficiency Ratios	Bank Type	Num	Mean	Standard. Deviation	"T" Value	Sig
Asset Utilization Ratio (AU)	Conventional	13	4.37%	0.69	2.283	0.039**
	Islamic	3	3.40%	0.44		
Income Expense Ratio (IER)	Conventional	13	1.73	0.258	0.830	0.421
	Islamic	3	1.47	0.401		
Operating Efficiency (OE)	Conventional	13	61.53%	9.69	-1.628	0.126
	Islamic	3	76.58%	29.89		

This table shows sample independent t test for efficiency measures. ** indicates *significance at 5 percent level*   for difference in means.

CONCLUDING COMMENTS

The purpose of this study is to compare financial performance of Islamic and conventional banks in Jordan over the period (2009-2013) using Financial Ratio Analysis. The study sample consists of 16 banks, 3 Islamic banks and 13 conventional banks. A comparative study is undertaken based on performance indicators, 13 financial ratios were estimated to measure performances in terms of profitability, liquidity, risk and solvency, and efficiency. T-test is used in determining their significance. The study concluded differences in financial performances between conventional and Islamic banks.

The results show that over the five years of study, profitability measures of performance did not show statistically significant differences between Islamic and conventional banks. Therefore, the first hypothesis was rejected. For liquidity ratios, there are statistical significant differences in CDR, CR, and CAR which indicate higher liquidity for Islamic banks and this is an expected result for Islamic banks, as Islamic banks have limited investment opportunities resulted from the prohibition of interest. In addition, Islamic banks cannot rely on borrowing money from central bank when money is needed because of interest prohibition. Islamic banks are found to be more liquid than conventional bank, which is consistent with the general literature view that Islamic banks suffer from liquidity excess.

For risk and solvency ratios as in DER, DTAR and EM, they showed a statistically significant difference between Islamic and conventional banks. That means Islamic bank are less risky and more solvent than conventional banks, which reflect a strong financial strength of Islamic banks to pay their debtors. Moreover, there are no significant differences between both banking types in LDR. According to efficiency ratios the result shows statistical significant differences in AU ratio between Islamic and conventional banks, which reflect better efficiency for conventional banks, whereas no statistical significant differences in efficiency ratios (IER, OE) between Islamic and conventional banks, but the

(IER) mean for conventional banks is higher than (IER) mean for Islamic banks, which reflect higher efficiency for conventional banks. The OE mean for conventional banks is lower than OE mean for Islamic banks, which also reflect better efficiency for conventional banks. This is because conventional banks in Jordan have long history and experience in the banking sector, as the Jordan Islamic bank that has been working for long period (since 1978) as an Islamic bank, whereas other Islamic banks are new. In contrast conventional banks in Jordan have longer history and experience and larger share in the Jordanian banking sector, so the sample of the study have more conventional banks than Islamic banks. Eventually, this imposes limitations in generating more accurate evaluation of performance comparison.

In the end, the absence of Lender of last resort facility and of short-term investments that is interest free resulted in excess liquidity requirement for Islamic bank. Jordanian Islamic banks should increase its ability to use its excess money to generate returns, and make balance between liquidity and profitability. Therefore, the Central bank of Jordan also should help Islamic banks to invest its excess liquidity. Finally, the number of Islamic banks in Jordan should be increased and their efficiency should be improved to be able to compete in the banking industry.

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