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THE IMPACT OF LIQUIDITY MANAGEMENT ON FINANCIAL PERFORMANCE IN OMANI BANKING SECTOR

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Abstract: *This study aims to investigate the liquidity position and its impact on the financial performance of Omani Banks with the eventual objective to advice policies to improve the management of liquidity risk in Omani banks. A sample of 4 local commercial banks has been used to examine the relationship between the Liquidity and Financial performance for the period of five years from 2010-2014. The data has been taken from the Banks annual reports using multiple regression analysis. The study concluded significant relationship between the bank's loans to total assets ratio, illiquid assets to liquid liabilities ratio and bank's ROA; bank's Liquid assets/deposits; Liquid assets/Short term liabilities and ROE; and bank's Loans/ Total assets, Loans/ Deposits & short term liabilities; Bank's loans – customer deposits/ Total assets and ROAA. However, The study finds no significant relationship between Omani bank liquidity position (such as a bank high ability to absorb shocks, liquidity at short-term, ability to cope with long term liquidity risk, less liquidity and less risk exposure) and NIM.*

Keywords: *Liquidity, Financial Performance, Oman, Banking Sector.*

1. INTRODUCTION

The financial crises from 2008-2010 is considered as a greatest financial crises after the great depression 1930. The crises resulted in breakdown of world stock exchanges, banking sectors, housing sector and different businesses (Sulaiman *et al.*, 2013). Although many analysts believe that the crises in the banking sector was due to the crash in housing sector, according to (Wikipedia, 2012), the financial crisis was triggered by a complex interplay of valuation and liquidity problems in the United States banking system in 2008. FERROUHI (2014) goes in the same bath and argues that the financial crisis was not only limited to bank bankruptcies, quasi-bankruptcies, nationalizations and a decline of financial performance of large financial institutions. The financial crisis also caused a deterioration of international stock markets, a drying of liquidity in interbank markets and spilled over into a sovereign debt crisis in several European countries in early 2010 (Greece, Portugal,

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Ireland, Italy and Spain) (Moro, 2013). Also many authors argue that during the recession of 2008-2010, the issue of low liquidity in the banks caused many banks to become bankrupt.

Geršl, Komarkova (2009) also argues that Economists and policymakers who was concentrated on causes and consequences of global excess liquidity before the crisis, focused on liquidity of financial institutions, mainly banks after 2007.

In the financial system, bank's role is differentiated as financial intermediaries, funds facilitator and supporter. Commercial as well as Islamic banks accept deposits from individuals and businesses, which make use of them for productive purposes in the economy. The banks are, therefore not only the stores houses of the economy's wealth, but also provide funds resource mobilization for the businesses. Due to these diversified operations banks may expose to liquidity risk, as they are absolutely accountable to make funds available, when required by the depositors or conversion of its balance sheet financial assets in to liquid funds to meet their obligations (Ramzan and Zafar, 2014).

It goes without saying that Banking is a risky business and several risk factors such as credit, liquidity, operational and market risks have been identified as critical to ensure that the banks position remain intact amid the intense competition in the industry (Ariffin and Kassim, 2011). The survival and success of a financial organization depends critically on the efficiency of managing these risks (Khan and Ahmed, 2001).

Many researchers (Akkizidis and Khandelwal, 2007; Al-Tamimi and Al-Mazrooei, 2007) agree that good risk management is highly relevant in providing better returns to the shareholders.

FERROUHI (2014) argues that the Third Basel Accord has given rise to two main ratios: "Liquidity Coverage Ratio (LCR) (aiming to ensure that a bank maintains an adequate level of unencumbered, high-quality liquid assets that can be converted into cash to meet its liquidity needs under a significantly severe liquidity stress scenario specified by supervisors), and Net Stable Funding Ratio (NSFR) (aiming to ensure that long term assets are funded with at least a minimum amount of stable liabilities in relation to their liquidity risk profiles" (Basel Committee on Banking Supervision 2010).

LIQUIDITY IN BANKS

Basel Committee on Banking Supervision in a consultation paper made in June 2008 put some clear definition of liquidity in the banking institutions:

(i) Liquidity is the ability of a bank to fund increases in assets and meet obligations as they come due, without incurring unacceptable losses.

(ii) The fundamental role of banks in the maturity transformation of short-term deposits into long-term loans makes banks inherently vulnerable to liquidity risk, both of an institution-specific nature and that which affects markets as a whole.

J.P. Morgan Chase (2000) argues that Liquidity of an asset is its ease of convertibility into cash or a cash equivalent asset. Liquidity risk arises from the difficulty of selling an asset quickly without incurring large losses. For a banking and financial firm "liquidity risk includes both the risk of being unable to fund its portfolio of assets at appropriate maturities and rates and the risk of being unable to liquidate a position in a timely manner at reasonable prices."

Merill Lynch (2000) defined liquidity in terms of maturity mismatch between assets and liabilities while at others it is defined in terms of asynchronous timing of cash inflows and cash outflows from the business. In fact, most banks failures, whether they are Islamic or conventional, are due to the difficulties in managing their liquidity needs (Abdul Majed, 2003).

The bank regulatory literature defines it as "risk to a bank's earnings and capital arising from its inability to timely meet obligations when they come due without incurring unacceptable losses.

Basel Committee on Banking Supervision (2008) argue that the fundamental role of banks in the maturity transformation of short-term deposits into long-term loans makes banks inherently vulnerable to liquidity risk, both of an institution-specific nature and that which affects markets as a whole. Nikolaou (2009) defines liquidity as "Risk relates to the probability of having a realization of a random variable different to the realization preferred by the economic agent.

In other words, it is the capability to acquire funding from short-term deposits in order to finance loans at a longer term. As a result, banks are susceptible to an inherent liquidity risk (Berger and Bouwman, 2009).

Liquidity according to (Shafique, Faheem and Abdullah, 2012) refers to the ability of a company to convert its assets into cash and this term is also called marketability.

Sabri Mohammad (2015) argues that in the financial system, banks' liquidity can be categorized into two types: funding (or liability) liquidity risk and market (or asset) liquidity risk. While, market-liquidity risk is related to the banks' inability to easily counterbalance or sell assets at the market price as a result of inadequate market strength or market distraction, funding-liquidity risk associated to the risk whereby the bank is not able to meet efficiently its obligations as they become due (Basel Committee, 2008).

This study is discussing the issue of banking liquidity and its impact on the financial performance of these banks as one of the most essential functions of banks is the transformation of maturities. The study also aims to fill the gap in the literature

by focusing on the Liquidity management of the Omani banks and linking the practices with the financial performance by evaluating banks' liquidity positions through different liquidity and performance ratios as (up to the author knowledge) not many researchers have addressed the impact of liquidity risk on financial performance in the middle East except of some fewer studies such as FERROUHI (2014)who analyzes the bank liquidity and financial performance in Moroccan Banking, except of him the most literature in this area was in Europe and Asia.

The study focuses on the Omani experience since the banking industry in this country is well established, thus allowing complete data collection and reliable analysis.

The study hopes to contribute in terms of shedding light on the importance of liquidity management of Omani banks so as to enhance the overall competitiveness in the financial performance of Omani banks.

2. LITERATURE REVIEW

2.1. Banking Sector in Oman

The importance of banking sector comes from its role in achieving the financial balance and economic development and growth. In Sultanate of Oman, the banking sector is composed of Central Bank, commercial banks, specialized banks and Islamic banks/windows. The numbers of commercial banks was 16 at the end of 2012, seven were local bank while 9 were branches of foreign banks, the total number of commercial banks branches are 479 branches of an increase of 4 over the last year. The following are the local commercial banks: Bank Muscat (BM), National Bank of Oman (NBO),), Oman Arab Bank (OAB), Bank Dhofar (BD), Bank Sohar (BS), HSBC Bank Oman and Al Ahli Bank (AB) (Sangeetha, 2012). In 2011, the first Islamic bank has beenestablished in the country, based on a royal decree issued by the government. (Central Bank of Oman Annual Report, 2012). Mazhar and Khalid, (2003) mention that Oman is a free market economy, with low taxation levels, fairly liberal investment laws and no control on capital movements and is a member of the Arab Gulf Co-operation Council (GCC). The estimations reveal that, the total banking assets has grown at a compound annual rate of around 13% in Oman during 2011-2014, as a result of expanding of business environment, increasing demand for loans, and international bankers' penetration in the country. (Oman Banking Sector Analysis, 2014)

The merger of HSBC Bank Middle East Limited's Oman branches with Oman International Bank in June 2012 is an important change in the institutional structure in Omani Banks. The registered name of the bank is now HSBC Bank Oman SAOG. In December 2012 Bank Nizwa was started to provide full Islamic services. It started its business in January 2013 with two branches. Four local banks set up Islamic banking windows with 9 branches during the first quarter of 2013.

Table 1
Banking sector in Oman

Type	*Date of establishment*	*Branch network*
Local banks		
1- National Bank 0f Oman	1973	65
2- Oman Arab Bank	1973	52
3- Bank Muscut	1981	138
4-Bank Dhofar	1990	61
5- Al ahli	1997	14
6- Sohar Bank	2006	26
7- HSBC Bank Oman		91
Foreign Banks		
8- Standard Chartered	1963	3
9-Habib Bank Ltd.	1972	8
10- Bank Melli Iran	1974	1
11- National Bank Of Abu Dabi	1976	9
12-Bank saderat Iran	1976	1
13-Bank of Baroda	1976	3
14-Stae Bank of India	2004	1
15- Bank of Beirut	2006	1
16- Qator National Bank	2007	5
Specialized Banks		
17- Oman Housing Bank	1977	9
18-Oman Development Bank	1977	10
Islamic Banks		
19- Nazwa Bank	2012	3

Source: Central Bank of Oman Annual Report (2013).

2.2. Literature on Liquidity Risk

Furlong (1992) shows significant decline in the US bank lending due to the imposition of capital regulations. Brinkmann and Horvitz (1995) document a significant decline in bank loan supply by the US banks due to need to comply with the Basle I requirements. However, Peek and Rosengren (1995) and Berger and Gregory (1994) find contradictory findings. Angbazo (1997), by testing the influence of risk factors in determining banks' profitability, the study finds that default risk is a determinant of banks' net interest margin (NIM) and the NIM of super-regional banks and regional banks are sensitive to interest rate risk as well as default risk. The study by Saunders and Schumacher (2000) provides further support to the importance of controlling risks to financial performance. By investigating the determinants of NIM for 614 banks of 6 European countries and US from 1988 to 1995, the study finds that interest rate volatility has a positive significant impact on the banks profitability. Hakim and Neamie (2001) examine the relationship between credit risk and bank's performance of Egypt and Lebanon bank in 1990s. Using data for banks from the two countries over the period 1993-

1999, the study estimates a fixed effects model of bank return with varying intercepts and coefficients. The findings show that credit variable is positively related to profitability, while liquidity variable is insignificant across all banks and have no impact on profitability. The study also finds a strong link between capital adequacy and commercial bank return, with high capitalization being the hindrance to return. The study concludes that the capital is a sunk cost with large banks realizing high profits in absolute but not in percentage terms.

Several other studies draw the link between good risk management practices with improved financial performances (see, for example, Smith, 1995; Schroeck, 2002). In particular, these studies propose that prudent risk management practices reduce the volatility in banks' financial performance, namely operating income, earnings, firm's market value, share return and return on equity. Schroeck (2002) and Nocco and Stulz (2006) stress the importance of good risks management practices to maximize firms' value. In particular, Nocco and Stulz (2006) suggests that effective enterprise risk management (ERM) have a long-run competitive advantage to the firm (or banks) compared to those that manage and monitor risks individually.

Schroeck (2002) proposes that ensuring best practices through prudent risk management result in increased earnings. Drzik (2005) shows that bank investment in risk management during 1990s helped to reduce earnings and loss volatility during the 2001 recession. In the same vein, the study by Pagach and Warr (2007) examines factors that influence the firm level of ERM and finds that the more leveraged the firms are, the more volatile are their earnings. Using the hazard model to examine factors that influence firms' adoptions of the ERM, the study documents firms that are more levered, more volatile earnings, and poorer stock performances, are more likely to adopt ERM.

Sensarma and Jayadev (2009) examined the relationship between returns on the banks' stocks and risk management. They found that banks' risk management capabilities have been improving over time and returns on the banks' stocks appear to be sensitive to risk management capability of banks. Zulfiqar and Anees (2012) examined Liquidity risk and banking system performance in Pakistan for the period covered was 2004-2009 and the sample includes 22 banks, which constitute the main part of the Pakistani banking system. They found that liquidity risk significantly affects bank profitability. Wasiuzzaman and Gunasegavan(2013) in their study entitled "Comparative study of the performance of Islamic and conventional banks: The case of Malaysia", concluded that liquidity and operational risks were found to be highly significant in affecting profitability(performance).

2.2.3. Literature on Financial Performance

European Central Bank (2010) argues that bank's performance is the capacity to generate sustainable profitability which is essential for banks to maintain ongoing

activity and for its investors to obtain fair returns; and crucial for supervisors, as it guarantees more resilient solvency ratios, even in the context of a riskier business environment.

Molyneux and Thornton (1992) examine the determinants of bank performance of eighteen European countries between 1986 and 1989. Results show that the ratio of liquid assets to total assets is negatively related to return on assets ROA. John and Courington false (1993) investigated Bank performance and risk. They examined the causes of variation in loan performance among banks located in the energy-producing states of Louisiana, Oklahoma, and Texas. The results indicate that excessive risk-taking played a critical role in the loan problems experienced by many of the region's banks and was a contributing force to the diversity in loan performance throughout the region. Bourke (1989) studies the internal and external determinants of profitability of twelve European, North American and Australian banks. Results show that the liquidity ratio measures by liquid assets to total assets is positively related to return on assets (ROA). Demirguc-Kunt and Huizinga (1999) study the determinants of bank's interest margins in 80 countries (OECD countries, developing countries and economies in transition). Results obtained show that liquidity risk measured by the ratio of loans to total assets is negatively related to return on assets ROA and positively related to net interest margins NIM. Chen *et al.* (2001) analyze the banking industry in Taiwan from 1993 to 1999 to identify determinants of net interest margins in Taiwan banking industry. Results show that the ratio of liquid assets to deposits is negatively related to net interest margins NIM. Kosmidou *et al.* (2005) analyze the UK commercial banking industry over the period 1995–2002 and investigate the impact of bank's characteristics, macroeconomic conditions and financial market structure on bank's net interest margin and return on average assets ROAA. Results show that the ratio of liquid assets to customer and short term funding is positively related to return on average assets ROAA and negatively related to net interest margins NIM. Barth *et al.* (2003) examine the relationship between the structure, scope, and independence of bank supervision and bank profitability in 2300 banks from 55 countries. The liquidity risk measured by the ratio of liquid assets to total assets is negatively related to return on assets ROA. Demirguc-Kunt *et al.* (2003) examine the impact of bank regulations, concentration, inflation, and national institutions on bank net interest margins NIM using data from over 1,400 banks across 72 countries. Results obtained show that liquidity risk measured by the ratio of liquid assets to total assets is negatively related to net interest margins NIM. Athanasoglou *et al.* (2006) analyze an unbalanced panel dataset of South Eastern European credit institutions over the period 1998–2002 and found that liquidity risk, measured by the ratio of loans on total assets has no effect on return on assets ROA and return on equity ROE. Pasiouras and Kosmidou (2007) study the effects of bank's specific characteristics and banking environment on the profitability of commercial domestic and foreign banks operating in the 15 EU countries over the period 1995–2001. Results show

that liquidity risk measured by the ratio of net loans to customer and short term funding is positively related to domestic banks' performance and negatively related to foreign banks' performance both measured by return on average assets (ROAA). Kosmidou (2008) examines the determinants of performance of 23 Greek banks during the period of EU financial integration (1990–2002). Results show that liquidity risk measured by the ratio of net loans to customer and short term funding is negatively related to performance measured by return on average assets (ROAA). Naceur and Kandil (2009) analyze a sample of 28 banks over the period 1989–2004. They study the effects of capital regulations on the performance and stability of banks in Egypt. The authors found that "liquidity, measured by the ratio of net loans to customer and short term funding, is statistically significant and positively related to the profitability of domestic banks and banks' liquidity does not determine returns on assets or equity (ROA or ROE) significantly". Chen *et al.* (2009) investigate the determinants of bank performance in terms of the perspective of the bank liquidity risk. The authors use an unbalanced panel dataset of 12 advanced economies commercial banks (Australia, Canada, France, Germany, Italy, Japan, Luxembourg, Netherlands, Switzerland, Taiwan, United Kingdom and United States) over the period 1994–2006 to estimate the causes of liquidity risk model. Results obtained show that liquidity risk is the endogenous determinant of bank performance measured by return on assets average, return on equity average and net interest margins and that liquidity risk is negatively related to return on assets average ROAA and return on equity average ROEA and positively related to net interest margins NIM. Ariffin (2012) analyze the relationship between liquidity risks and Islamic banks financial performance in Malaysia over the period 2006–2008. Measuring liquidity risk by the ratio of total assets over liabilities, the author found that, in time of crisis, liquidity risk and return on assets ROA and return on equity ROE tend to behave in an opposite way and that liquidity risk may lower ROA and ROE.

3. RESEARCH OBJECTIVES

The main objective of this study is to investigate the liquidity position in Omani banks and its impact on the financial performance of these banks with the eventual objective to advise policies to improve the management of liquidity risk in Omani banks.

4. STUDY HYPOTHESIS

Based on the purpose of the study which is to examine the relationship between Liquidity risk and performance of the Omani banks and the relative impact of the liquidity position on the financial performance of these banks, the following hypotheses are formulated:

H1: There is a significant relationship between Omani Banks' Liquidity position and their financial performance. The sub hypotheses are as follows:

1. There is a significant relationship between the bank's ability to absorb liquidity shock and bank's profitability.
2. There is a significant relationship between the bank's ability to cope with a high demand of short term liquidity and bank's profitability
3. There is a significant relationship between the bank's ability to cope with long term liquidity and bank's profitability
4. There is a significant relationship between the bank's loans to total assets ratio and bank's profitability
5. There is a significant relationship between the bank's illiquid assets to liquid liabilities ratio and bank's profitability
6. There is a significant relationship between the bank's liquidity risk exposure and bank's profitability

Variables Definitions:

Firstly: Liquidity Measures:

To assess the liquidity position of Omani banks, this study adopts the same measures that have been proposed by many authors such as those who provide the use of the stock approach(Yeager, Seitz 1989; Hemple, Simonson 2008; Fielding, Shortland 2005; Lucchetta 2007; Moore 2010) and which have been used also recently by FERROUHI (2014).

These liquidity measures are:

(i) Liquid assets to total assets ratio: to measures the ability of a bank to absorb liquidity shocks. A high ratio means a high ability to absorb shocks

(ii) Liquid assets to short term liabilities ratio: to measures the ability of a bank to cope with a high demand of short term liquidity. A high ratio means that the bank is liquid at short-term;

(iii) Liquid assets to deposits ratio: used to measure bank's liquidity in the case that the bank cannot borrow from other banks. A high ratio means that the bank is able to cope long term liquidity risk;

(iv) Loans to total assets ratio: to measures the share of loans in total assets. It shows the percentage of the bank's assets related to illiquid loans. When this ratio is high, it means that the bank is less liquid;

(v) Loans to deposits & short term liabilities ratio: to measure the relationship of illiquid assets and liquid liabilities. When this ratio is high, it means that the bank is less liquid; and

(vi) Bank's loans – customer deposits to Total assets ratio: measures liquidity risk exposure

Secondly: Performance Measures

As defined by FERROUHI (2014), Bank performance is the capacity to generate sustainable profitability.

To examine the financial performance of Omani banks, this study adopts four performance measures including the three traditional measures that have been identified by the European Central Bank. These performance measures are namely: ROA, ROE, ROAA and NIM. These measures have also been used by many researchers such as FERROUHI (2014), Salim and Hamd 2015.

Marcellina (2011) examined credit scoring and risk assessment, and was able to confirm that financial ratios are good predictor variables of bank's performance and can be used for classifying and evaluating the bank's customers. Consequently, the bank can reduce its non-performing loans and its credit risk exposure.

(i) ROA: to measures bank's profitability relative to its assets and thus the bank's overall performance;

(ii) ROE: to measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested;

(iii) ROAA: to measure the ability of a bank's management to generate profits from the bank's assets; and

(iv) NIM: to measures the gap between what the bank pays savers and what the bank receives from borrowers

5. DATA COLLECTION

5.1. Data and Empirical Model

The regression model used in this study is as follows:

PERF = f (LIQR1, LIQR2, LIQR3, LIQR4, LIQR5, LIQR6)

Where:

- PERF – represents four alternative performance measures for the Omani commercial banks. These four measures are ROA, ROE, ROAA and NIM;
- LIQR1 – is liquidity risk in absorbing liquidity shocks = Liquid assets/total assets
- LIQR2 – is liquidity risk in coping with a high demand of short term liquidity = Liquid assets/short-term liabilities

- LIQR3 – is liquidity risk in the case that the bank cannot borrow from other banks = Liquid assets/deposits
- LIQR4 – is liquidity risk in having more illiquid loans= Loans/total assets
- LIQR5 – is liquidity risk of having more illiquid Assets= Loans/deposits & short term liabilities
- LIQR6 – is liquidity risk exposure = Bank's loans – customer deposits/total assets

Definition of Variables:

Table 1 provides a summary of the definition of the independent and dependent variable as follows:

Table 1
Summary of the variables

Variables	*Code*	*Measure*
Independent variables:		
Ability to absorb liquidity shocks	L1	Liquid assets/ Total assets
Ability to cope with a high demand of short term liquidity	L2	Liquid assets/Short term liabilities
liquidity in the case of inability to borrow from other banks	L3	Liquid assets/deposits
Percentage of Assets related to illiquid loans	L4	Loans/ Total assets
Relation of illiquid assets and liquid liabilities	L5	Loans/ Deposits & short term liabilities
liquidity risk exposure	L6	Bank's loans – customer deposits/ Total assets
Dependent variables:		
Return on Assets	ROA	Net Profit/ Total assets
Return on Equity	ROE	Net Profit/ Shareholders' Equity
Return on Average Assets	ROAA	Net Profit/ Average Total Assets
Net Interest Margin	NIM	Interest Income- Interest Expense /Total Earnings Assets

The study examines the associations and regression as follows.

6.1 Sample Selection

The target population was the banking sector in Sultanate of Oman. This sector is one of the most important sectors in this country. There are 7 licensed commercial Local banks operating in the Sultanate of Oman (April 2015). These are namely: Bank Muscat, Bank Dhofar, National Bank of Oman, Bank Sohar, HSBC Bank, Oman Arab Bank; and Ahli Bank. All these banks are listed on Muscat Securities Market (MSM) during the period of this study. This study took a sample of only

four Omani banks to examine the relationship between the Liquidity and Financial performance for the period of five years from 2010-2014.

The study sample consists of the following Omani banks: Bank Muscat, Bank Dhofar, National Bank of Oman; and Bank Sohar.

The criteria used for selecting these four banks are: the availability of data, the suitability of the bank information to this study, the Market share of the bank; and the systematic Financial Statement contents of these banks.

The methodology of the study is a content analysis of annual reports of a sample of 4 out of 7 (57%) companies in the banking sector from 2010-2014.

The study excluded 3 banks for two reasons. Firstly, some of these banks did not have Islamic Services windows (period of study). Secondly, some banks did not have the required data needed by this study.

The data has been taken from the Annual reports of the sample banks and the followings have been calculated to examine the study hypothesis:

Firstly: Liquidity Variables Ratios (the Independent Variable) which are namely: L1, L2, L3, L4, L5; and L6.

Secondly: Performance Variables Ratios (the Dependent Variable) which are namely: ROA, ROE, ROAA; and NIM.

Then the study used the (SPSS) software and Multiple Regression Analysis and (ANOVA-Oneway Analysis to test the study hypothesis.

6.2. Empirical Analysis

The results of the correlation as showed in Table 2, suggest that the correlations of L5 and L6 are significant at 5% while the correlation of L1, L2, L3 & L4 are insignificant at 5%. The results indicate that there are negative associations between L1 and L2 with Return on Assets, while there is a positive association between L3, L4, L5; and L6 with Return on Assets.

Table 2 also shows the summary of regression analysis. The R-Square (0.473) is equal to 47% indicating that independent variables in the model has the ability to explain and interpret 47% of the total variance in the dependent variable (The Return on Assets)

The model of regression is insignificant at 5% because the Sig. of F-Value (0.14) is more than 5%.However; the model of regression is significant at 10%. In this case, there is at least one variable in the model does have an impact on the Return on Assets at 10%.

In summary, the relationship between Loans to deposits & short term liabilities ratio (L5) and Bank's loans – customer deposits to Total assets (L6) have an impact

on the financial performance of the Omani Banks (ROA). This means that when the bank is less liquid and has less risk exposure, this will positively impact the Return on Assets (ROA) and thus the financial performance of the bank. Table 2 summarized the results as follow:

Table 2
Summary of correlations and regression for Omani Banking sector (4 Banks)

(Source: output of SPSS)

Model	*I.V*	*Correlation*	*D.V*	*R-Square*	*F-Value*	*Sig.*	*Coefficients Variables*	*T-Value*	*Sig.*
Model	L1	-.168	ROA	.473	1.943	.148[a]	Constant	1.902	.080
	L2	-.183					L1	1.030	.322
	L3	.298					L2	-1.556	.144
	L4	.251					L3	-1.934	.075
	L5	.409*					L4	-1.944	.074
	L6	.509*					L5	1.213	.247
							L6	1.767	.101

Note: correlation is significant at the 0.05 level (1-tailed). I.V = Independent Variables, D.V = Dependent Variable, ROA = Return on Assets

The results of the correlation as showed in Table 3, suggest that the correlations of L3 and L6 are significant at 5% while the correlation of L1, L2 are not exactly significant at 5% as they just slightly above 5% (L1 (.053), L2 (.055) , L4 & L5 are not significant at 5%. The results indicate that there are negative associations between L1, L2; and L4 with Return on Equity, while there is a positive association between L3, L5; and L6 with Return on Equity.

Table 3 also shows the summary of regression analysis. The R-Square (.836) is equal to 84% indicating that independent variables in the model has the ability to explain and interpret 84% of the total variance in the dependent variable (The Return on Equity)

The model of regression is significant at 5% because the Sig. of F-Value (.000) is less than 5%. In this case, there is at least one variable in the model does have an impact on the Return on Equity at 5%.

In summary, the relationship between Liquid assets/deposits (L3) and Bank's loans – customer deposits to Total assets (L6) have an impact on the financial performance of the Omani Banks (ROE). This means that if the bank is able to cope with long term liquidity risk (in the case that the bank cannot borrow from other banks) and that the bank has less risk exposure, this will positively impact the Return on Equity (ROE) and thus the financial performance of the bank. Table 3 summarized the results as follow:

Table 3
Summary of correlations and regression for Omani Banking sector (4 Banks)

(Source: output of SPSS)

Model	*I.V*	*Correlation*	*D.V*	*R-Square*	*F-Value*	*Sig.*	*Coefficients Variables*	*T-Value*	*Sig.*
Model	L1	-.373	ROE	.836	11.085	.000[a]	Constant	1.117	.284
	L2	-.368					L1	.606	.555
	L3	.799*					L2	-1.906	.079
	L4	-.156					L3	-.855	.408
	L5	.239					L4	-2.549	.024
	L6	.588*					L5	2.931	.012
							L6	.695	.499

Note: correlation is significant at the 0.05 level (1-tailed). I.V = Independent Variables, D.V = Dependent Variable, ROE= Return on Equity

The results of the correlation as showed in Table 4, suggest that the correlations of L4, L5; and L6 are significant at 5% while the correlation of L1, L2, L3 are insignificant at 5%. The results indicate that there are negative associations between L1 and L2 with Return on Average Assets, while there is a positive association between L3, L4, L5; and L6 with Return on Average Assets.

Table 4 also shows the summary of regression analysis. The R-Square (0.611) is equal to 61% indicating that independent variables in the model has the ability to explain and interpret 61% of the total variance in the dependent variable (The Return on Average Assets). The model of regression is significant at 5% because the Sig. of F-Value (.030) is Less than 5%. In this case, there is at least one variable in the model does have an impact on the Return on Average Assets at 5%.

In summary, the relationship between Liquid assets/deposits (L3), share of loans in total assets (L4), illiquid assets and liquid liabilities (L5); and Bank's loans – customer deposits to total assets (L6) have an impact on the financial performance of the Omani Banks (ROAA). This means that when the bank is less liquid and has less risk exposure, this will positively impact the Return on Average Assets (ROAA) and thus the financial performance of the bank. Table 4 summarized the results as follow:

The results of the correlation as showed in Table 5, suggest that the correlations of L1, L2, L3, L4; and L6; are insignificant at 5% The results indicate that there are negative associations between L1, L2, L4; and L6 with Net Interest Margin, while there is a positive association between L3 and L5 with Net Interest Margin.

Table 5 also shows the summary of regression analysis. The R-Square (0.080) is equal to only 8% indicating that independent variables in the model has the ability to explain and interpret only 8% of the total variance in the dependent variable (The Net Interest Margin)

Table 4
Summary of correlations and regression for Omani Banking sector (4 Banks)

(Source: output of SPSS)

Model	*I.V*	*Correlation*	*D.V*	*R-Square*	*F-Value*	*Sig.*	*Coefficients Variables*	*T-Value*	*Sig.*
Model	L1	-.077	ROAA	.611	3.401	.030[a]	Constant	1.954	.073
	L2	-.121					L1	.993	.339
	L3	.341					L2	-1.510	.155
	L4	.409*					L3	-1.942	.074
	L5	.595*					L4	-1.962	.071
	L6	.662*					L5	1.391	.188
							L6	1.848	.088

Note: correlation is significant at the 0.05 level (1-tailed). I.V = Independent Variables, D.V = Dependent Variable, ROAA= Return on Average Assets

The model of regression is insignificant at 5% because the Sig. of F-Value (.979[a]) is more than 5%. In this case, there is no variable in the model does have an impact on the Net Interest Margin at 5%.

In summary, the relationship between the ability of a bank to absorb liquidity shocks (L1), the ability of a bank to cope with a high demand of short term liquidity (L2), share of loans in total assets (L4), illiquid assets and liquid liabilities (L5); and Bank's loans – customer deposits to total assets (L6) have no significant impact on the financial performance of the Omani Banks (NIM). This means that there is no significant impact of the Omani bank liquidity position (such as a bank high ability to absorb shocks, liquidity at short-term, ability to cope with long term liquidity risk, less liquidity and less risk exposure) on Net Interest Margin (NIM) and thus the financial performance of the bank. Table 5 summarized the results as follow:

Table 5
Summary of correlations and regression for Omani Banking sector (4 Banks)

(Source: output of SPSS)

Model	*I.V*	*Correlation*	*D.V*	*R-Square*	*F-Value*	*Sig.*	*Coefficients Variables*	*T-Value*	*Sig.*
Model	L1	-.164	NIM	.080	.174	.979[a]	Constant	-.165	.872
	L2	-.044					L1	-.611	.553
	L3	.017					L2	.207	.839
	L4	-.026					L3	.446	.664
	L5	.015					L4	.283	.782
	L6	-.004					L5	.289	.777
							L6	-.645	.531

Note: correlation is significant at the 0.05 level (1-tailed). I.V = Independent Variables, D.V = Dependent Variable, NIM= Net Interest Margin

7. SUMMARY, RESULTS DISCUSSION & CONCLUSIONS

As the survival and success of a financial organization depends critically on the efficiency of managing these risks (Khan and Ahmed, 2001). Therefore, Liquidity is very important factor for all banks because Banking is a risky business and several risk factors such as credit, liquidity, operational and market risks have been identified as critical to ensure that the banks position remain intact amid the intense competition in the industry (Ariffin and Kassim, 2011).

Most of studies of Liquidity position and its impact on the banks financial performance have been conducted in Europe and Asia and still few studies have been made in the Middle East. This study provides empirical evidence regarding the impact of Liquidity position determinants on financial performance of Omani Banking Sector listed on Muscat Securities Market (MSM). The financial statements of four banks were analyzed for the period of 5 years from 2010 to 2014. There were 7 commercial banks listed on MSM in the banking sector during the period of study, but some companies (3 banks) were excluded for different reasons.

The criteria used for selecting these four banks and the exclusion of the other three banks was based on the following factors: the availability of data, the suitability of the bank information to the study hypotheses and variables, the Market share of the bank; and the systematic Financial Statement contents of these banks.

The study examined six determinants of liquidity position, namely; Ability to absorb liquidity shocks, Ability to cope with a high demand of short term liquidity, Liquidity in the case of inability to borrow from other banks, Percentage of Assets related to illiquid loans, position of illiquid assets to liquid liabilities; and liquidity risk exposure.

The study also examined four of financial performance indicators, namely; Return on Assets (ROA), Return on Equity (ROE), Return on Average Assets (ROAA) and; Net Interest Margin (NIM).

The study concluded the followings:

For Omani Commercial banks, with regard to relationship between Liquidity position and Return on Assets, the model interprets 47% of the total variance of the dependent variable Return on Assets (ROA), and the model of regression shows significant correlation between L5, L6 and dependent Variable (ROA) at 5% whereas the model shows insignificant correlation at 5% for L1, L2, L3 & L4. However; the model of regression is significant at 10% with these independent variables. The results indicate that there are negative associations between L1 and L2 with Return on Assets, while there is a positive association between L3, L4, L5; and L6 with Return on Assets. Therefore, the results of the analysis refer to the acceptance of H5 (Existence of significant relationship between the bank's illiquid assets to liquid

liabilities ratio and bank's profitability) & H6 (Existence of significant relationship between the bank's liquidity risk exposure and bank's profitability) have an impact on the financial performance of the Omani Banks (ROA). This means that when the bank is less liquid and has less risk exposure, this will positively impact the Return on Assets (ROA) and thus the profitability of the bank.

With regard to relationship between Liquidity position and Return on Equity, the model interprets 84% of the total variance of the dependent variable Return on Equity (ROE), and the model of regression shows significant correlation between L3, L6 and dependent Variable (ROE) at 5%. With regard to L1& L2, The model also shows almost significant correlation as they just above 5% (L1 (.053), L2 (.055) whereas the model shows insignificant correlation at 5% for L1, L2, L3 & L4. The results indicate that there are negative associations between L1, L2; and L4 with Return on Equity, while there is a positive association between L3, L5; and L6 with Return on Equity.

Therefore, the results of the analysis refer to the acceptance of H3 (Existence of significant relationship between the bank's ability to cope with long term liquidity and bank's profitability) & H6 (Existence of significant relationship between the bank's liquidity risk exposure and bank's profitability). It can also be almost conclude that the results refer to the acceptance of H1 (There is a significant relationship between the bank's ability to absorb liquidity shock and bank's profitability) and H2 (There is a significant relationship between the bank's ability to cope with a high demand of short term liquidity and bank's profitability) .This means that when the bank is able to cope with long term liquidity, cope with a high demand of short term liquidity, less liquid and has less risk exposure, these will positively impact the Return on Equity (ROE) and thus the profitability of the bank.

With regard to relationship between Liquidity position and Return on Average Assets, the model interprets 61%% of the total variance of the dependent variable Return on Average Assets (ROAA), and the model of regression shows significant correlation between L4, L5, L6; and dependent Variable (ROAA) at 5% whereas the model shows insignificant correlation at 5% for L1, L2, L3. The results indicate that there are negative associations between L1 and L2 with Return on Average Assets, while there is a positive association between L3, L4, L5, L6; and Return on Average Assets.

Therefore, the results of the analysis refer to the acceptance of L4 (There is a significant relationship between the bank's loans to total assets ratio and bank's profitability), H5 (Existence of significant relationship between the bank's illiquid assets to liquid liabilities ratio and bank's profitability) & H6 (Existence of significant relationship between the bank's liquidity risk exposure and bank's profitability). This means that when the bank is less liquid and has less risk

exposure, this will positively impact the Return on Average Assets (ROAA) and thus the profitability of the bank. For the relationship between Liquidity position and Net Interest Margin, the model interprets only 8% of the total variance of the dependent variable Net Interest Margin (NIM), and the model of regression shows insignificant at 5% because the Sig. of F-Value (.979[a]) is more than 5%. In this case, there is no variable in the model does have an impact on the Net Interest Margin at 5%.

Therefore, the results of the analysis refer to the rejection of all hypotheses with regard to relationship between Omani banks Liquidity position and the profitability. This means that there is no significant impact of the Omani bank liquidity position (such as a bank high ability to absorb shocks, liquidity at short-term, ability to cope with long term liquidity risk, less liquidity and less risk exposure) on Net Interest Margin (NIM) and thus the profitability of the bank.

In all, the results of the study are that:

8. RESULTS DISCUSSION

The first result (Existence of a significant relationship between the bank's loans to total assets ratio, illiquid assets to liquid liabilities ratio and bank's ROA) supports the finding of Smith, 1995; Schroeck, 2002) who draw the link between good risk management practices with improved financial as these studies propose that prudent risk management practices reduce the volatility in banks' financial performance. This result also goes in line with Schroeck (2002) who proposes that ensuring best practices through prudent risk management result in increased earnings and supports Zulfiqar and Anees (2012) findings who examined Liquidity risk and banking system performance in Pakistan for the period covered was 2004-2009 and found that liquidity risk significantly affects bank profitability and also supports Bourke (1989) results that the liquidity ratio measures by liquid assets to total assets is positively related to return on assets (ROA). However, this result is contrary to Molyneux and Thornton (1992) results as they show that the ratio of liquid assets to total assets is negatively related to return on assets ROA and Barth *et al.* (2003) conclusion that liquidity risk measured by the ratio of liquid assets to total assets is negatively related to return on assets ROA and also is in contradiction with Athanasoglou et al. (2006) conclusion that liquidity risk, measured by the ratio of loans on total assets has no effect on return on assets ROA and return on equity ROE.

The second result (A significant relationship between the bank's Liquid assets/ deposits; Liquid assets/Short term liabilities and ROE) supports Sensarma and Jayadev (2009) findings that banks' risk management capabilities have been improving over time and returns on the banks' stocks appear to be sensitive to risk management capability of banks. This results does not agree with the finding

of Naceur and Kandil (2009 that banks' liquidity does not determine returns on assets or equity (ROA or ROE) significantly and Chen *et al.* (2009) that liquidity risk is negatively related to return on equity average ROEA.

The third result (significant relationship between the bank's Loans/ Total assets, Loans/ Deposits & short term liabilities; Bank's loans – customer deposits/ Total assets and ROAA.) supports the findings of Kosmidou *et al.* (2005) Results that the ratio of liquid assets to customer and short term funding is positively related to return on average assets ROAA. However, this result does not agree with Chen *et al.* (2009) that liquidity risk is negatively related to return on assets average ROAA and Kosmidou (2008) results that liquidity risk measured by the ratio of net loans to customer and short term funding is negatively related to performance measured by return on average assets (ROAA). This result is also in contradiction with Ariffin (2012) findings that, in time of crisis, liquidity risk and return on assets ROA and return on equity ROE tend to behave in an opposite way and that liquidity risk may lower ROA and ROE.

The fourth result (no significant relationship between Omani bank liquidity position and NIM) does not support the finding of Saunders and Schumacher (2000) that interest rate volatility has a positive significant impact on the banks profitability and Angbazo (1997) findings that default risk is a determinant of banks' net interest margin (NIM) and the NIM of super-regional banks and regional banks are sensitive to interest rate risk as well as default risk. This result also in contradiction with Demirguc-Kunt and Huizinga (1999) Results that liquidity risk measured by the ratio of loans to total assets is positively related to net interest margins NIM.

9. CONCLUSION

This study concludes a significant relationship between the bank's loans to total assets ratio, illiquid assets to liquid liabilities ratio and bank's ROA and A significant relationship between the bank's Liquid assets/deposits; Liquid assets/Short term liabilities and ROE. The study Also finds significant relationship between the bank's Loans/ Total assets, Loans/ Deposits & short term liabilities; Bank's loans – customer deposits/ Total assets and ROAA. However, The study finds no significant relationship between Omani bank liquidity position (such as a bank high ability to absorb shocks, liquidity at short-term, ability to cope with long term liquidity risk, less liquidity and less risk exposure) and NIM.

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