THE IMPACT OF LIQUIDITY RISK DETERMINANTS ON PROFITABILITY: AN EMPIRICAL STUDY ON ISLAMIC BANKS IN THE KINGDOM OF BAHRAIN

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ABSTRACT

The sustainability of the banking system depends on the profitability and capital adequacy. Practically, profitability and liquidity are effective indicators of the corporate health and performance of not only the Islamic commercial banks but all profit-oriented ventures. Therefore, liquidity risk is considered as one of the serious concerns and challenges for modern era banks. As the global financial crisis spread, Islamic banks in Kingdom of Bahrain began to be affected; all of a sudden, some of the biggest Islamic banks, such as the Bahrain Islamic Bank, the Gulf Finance House and the Ithmar Bank, ended up with net losses. The aim of this study is to investigate the impact of the significant determinants of liquidity risk on the profitability of Islamic commercial banks in Bahrain during the 2007-2013 periods as well as to assess the impact of the global financial crisis on the profitability of these banks during the recovery period. Multiple regressions analysis was applied.

By using Ordinary Least Squares (OLS) the results revealed that all the independent variables are significant with both models ROA and ROE except financial leverage and deposits have a statistically insignificant impact on ROA- Capital adequacy, financial leverage, deposits and GDP have a positive and significant impact; whereas bank size and the global financial crisis have a negative impact and are statistically significant.

From these results, it is recommended that these banks control and manage properly these variables in order to create a high level of liquidity in the banks which would achieve a good profitability, leading to the sustainability of the financial banking system.

Keywords: Capital Adequacy, Financial Leverage, Maturity, Non-performing Loans, Takaful and Re-Takaful.

ABSTRAK

Kemampanan sistem perbankan bergantung kepada keuntungan dan modal. Secara praktikalnya, keuntungan dan kecairan adalah petunjuk efektif kejayaan korporat dan prestasi bukan sahaja kepada bank perdagangan Islam tetapi semua dagangan berorientasikan keuntungan. Oleh itu, risiko kecairan adalah dianggap sebagai salah satu permasalahan yang serius dan cabaran bagi bank di era moden. Disebabkan krisis kewangan global yang meruncing, beberapa instititusi kewangan Islam besar, seperti Bank Islam Bahrain, Institusi Kewangan Negara Teluk dan Bank Ithmar, berakhir dengan kerugian bersih. Kajian ini bertujuan untuk menyiasat kesan penentu risiko kecairan ke atas keuntungan bank perdagangan Islam di Bahrain dalam tempoh 2007-2013 dan juga untuk menilai kesan krisis kewangan global ke atas keuntungan bank-bank ini dalam tempoh pemulihan.

Analisis regrasi telah digunakan. Menggunakan Ordinary Least Squares (OLS), keputusan mendapati bahawa semua pembolehubah bebas adalah signifikan dengan kedua-dua model ROA dan ROE kecuali pembahagian kewangan dan deposit yang tidak signifikan terhadap ROA- Capital, pembahagian kewangan, deposit dan KDNK mempunyai positif dan kesan yang signifikan; manakala saiz bank dan krisis kewangan global memberi kesan negatif dan statistik yang signifikan dari segi statistik.

Daripada keputusan ini, adalah disyorkan bahawa bank mengawal dan mengurus dengan baik pembolehubah ini bagi mewujudkan tahap kecairan yang tinggi di bank-bank yang akan mencapai keuntungan yang baik, yang membawa kepada kemampanan sistem perbankan kewangan.

Kata kunci: Kecukupan Modal, Pembahagian Kewangan, Simpanan, Tempoh Matang, Pinjaman Tidak Berbayar, Takaful dan Takaful Semula.

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TABLE OF CONTENTS

CHAPTER THREE: METHODOLOGY

CHAPTER FOUR: RESULT AND ANALYSIS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ABBREVIATIONS

AAOIFI	The Accounting and Auditing Organization for Islamic
CBs	Conventional Banks
CR	Credit Risk
CAP	Capital Adequacy
CBB	Central Bank of Bahrain
DTA	Deposits ratio
DUM	Dummies Variable of Banks
DVs	Dependent Variables
EQTA	Equity to total assets
FL	Financial Leverage
GCC	Gulf Cooperation Countries
GDP	Gross Domestic Product Growth
GDPGR	Gross Domestic Product growth Rate
GFC	Global Financial Crisis
IBs	Islamic Banks
IFSB	Islamic Financial Services Bank
IIFM	International Islamic Financial Market

IIRA	Islamic International Rating Agency
IMF	International Monetary Fund
IVs	Independent Variables
LD	Loans to Deposits
LTA	Logarithmic of Total Assets
LMC	Financial Institutions Liquidity Management Centre
LR	Liquidity Risk
LOGTA	Logarithm of total assets
NIM	Net Interest Margin
NPLs/NPF	Non-Performing/Loans/Non-Performing Financing
NWC	Net Working Capital
RBs	Retail Banks
ROA	Return on Assets
ROE	Return on Equity
SZE	Size
UUM	University Utara Malaysia
WBs	Wholesales Banks

CHAPTER ONE

INTRODUCTION

1.1 Background and Motivation of the Study

Strengthening the financial sector is a pivotal concern for any economy (Paul *et al.*, 2013). Banks are the main participants in any economy and perform important activities on both sides of the balance sheets: they enhance the flow of funds by lending cash to short-term users on the assets side; and provide liquidity on the liability side (Arif *et al.*, 2012). The role of banks can be diversified into financial intermediaries as it channels the financial resources from surplus economic units to deficit economic units, i.e., as facilitator and supporter (Tesfaye, 2012). Financial institutions are effective mediators between savers and borrowers, like investment banks, central banks, development banks and commercial banks, while performing this financial intermediary role.

Commercial banks have become the main institutions with the passage of time, because banks work as retail banking units and facilitate the transfer of financial assets that are required from lenders to other financial assets that are desired by the public. So, considering the fact that the activities of commercial banks affect the greater part of society, they have been selected as the major focus of this study. The financial intermediary role of commercial banks is the bedrock for two essential functions, namely, deposit mobilization and credit extension. An adequate financial intermediation requires the purposeful attention of the bank management to

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REFERENCES

Abbas, F., Tahir, M., & Rahman, M.-u. (2012). A comparison of financial performance in the banking sector: some evidence from Pakistani commercial banks. *Journal of Business Administration and Education, 1*(1).

Abduh, M., & Alias, A. (2014). Factors determine islamic banking performance in Malaysia: A multiple regression approach. *Journal of Islamic Banking & Finance, 31*(1).

Abduh, M., & Idrees, Y. (2013). Determinants of islamic banking profitability in Malaysia. *Australian Journal of Basic and Applied Sciences, 7*(2), 204-210.

Abdullah, A., & Khan, A. Q. (2012). Liquidity risk management: a comparative study between domestic and foreign banks in Pakistan. *Journal of Managerial Sciences Volume VI Number, 1*, 62.

Abor, J. (2005). The effect of capital structure on profitability: an empirical analysis of listed firms in Ghana. *The Journal Of Risk Finance, 6*(5), 438-445.

Abusharba, M. T., Triyuwono, I., Ismail, M., & Rahman, A. F. (2013). Determinants of Capital Adequacy Ratio (CAR) in Indonesian Islamic Commercial Banks. *Global Review of Accounting and Finance, 4*(1).

Ahmed, N., Ahmed, Z., & Naqvi, I. H. (2011). Liquidity risk and islamic banks: evidence from Pakistan. *Interdisciplinary Journal of Research in Business, 1*(9), 99-102.

Ahmed, N., Akhtar, M. F., & Usman, M. (2011). Risk management practices and islamic banks: An empirical investigation from Pakistan. *Interdisciplinary Journal of Research in Business, 1*(6), 50-57.

Akhtar, M. F., Ali, K., & Sadaqat, S. (2011a). Factors influencing the profitability of Islamic banks of Pakistan. *International Research Journal of Finance and Economics, 66*, 125-132.

Akhtar, M. F., Ali, K., & Sadaqat, S. (2011b). Liquidity risk management: a comparative study between conventional and Islamic banks of Pakistan. *Interdisciplinary Journal of Research in Business, 1*(1), 35-44.

Al-Hassan, A., Oulidi, N., & Khamis, M. (2010). The GCC banking sector: Topography and analysis. *IMF Working Papers*, 1-45.

Al-Khouri, R. (2012). Bank characteristics and liquidity transformation: the case of GCC banks. *International Journal of Economics and Finance, 4*(12), p114.

AL-Omar, H., & AL-Mutairi, A. (2008). Bank-specific determinants of profitability: the case of Kuwait. *Journal of Economic and Administrative Sciences, 24*(2), 20-34.

Al-Sadah, A. (2000). Regulation of financial reporting by Islamic banks. *Unpublished M. Phil. Thesis, University of Surrey*.

Al-Tamimi, H., & Hussein, A. (2010). Factors influencing performance of the UAE Islamic and conventional national banks. *Global Journal of Business Research, 4*(2), 1-9.

Alkassim, F. A. (2005). The profitability of Islamic and conventional banking in the GCC countries: A comparative study. *Journal of Review of Islamic Economics, 13*(1), 5-30.

Allen, F., & Gale, D. (2004). Financial intermediaries and markets. *Econometrica, 72*(4), 1023-1061.

Almazari, A. A. (2014). Impact of internal factors on bank profitability: comparative study between Saudi Arabia and Jordan. *Journal of Applied Finance & Banking, 4*(1), 125-140.

Alshatti, A. S. (2014). The effect of the liquidity management on profitability in the Jordanian commercial banks. *International Journal of Business and Management, 10*(1), p62.

Altaee, H. H. A., Talo, I. M. A., & Adam, M. H. M. (2013). Testing the financial stability of banks in GCC Countries: Pre and Post Financial Crisis. *International Journal of Business and Social Research, 3*(4), 93-105.

Alzorqan, S. T. (2014). Bank liquidity risk and performance: an empirical study of the banking system in Jordan. *Research Journal of Finance and Accounting, 5*(12), 155-164.

Amba, M. S., & Almukharreq, F. (2013). Impact of the financial crisis on profitability of the islamic banks vs conventional banks-evidence from GCC. *International Journal of Financial Research, 4*(3), p83.

Anam, S., Hasan, S. B., Huda, H. A. E., Uddin, A., & Hossain, M. M. (2012). Liquidity risk management: a comparative study between conventional andislamic banks of Bangladesh. *Research Journal of Economics, Business and ICT, 5*.

Anbar, A., & Alper, D. (2011). Bank specific and macroeconomic determinants of commercial bank profitability: Empirical evidence from Turkey. *Business and Economics Research Journal, 2*(2), 139-152.

Anjum Iqbal, D. (2012). Liquidity risk management: A comparative study between conventional and islamic banks of Pakistan. *Global Journal of Management and Business Research, 12*(5).

Ansari, S. (2011). Comparative financial performance of existing islamic banks and contemporary conventional banks in Pakistan. *International Proceedings of Economics Development & Research, 22*.

Anwar, M., & Herwany, A. (2006). The determinants of successful bank profitability in Indonesia: empirical study for provincial government's banks and private non-foreign banks: Department of Management and Business, Padjadjaran University.

Arif, A., & Anees, A. N. (2012). Liquidity risk and performance of banking system. *Journal of Financial Regulation and Compliance, 20*(2), 182-195.

Asma'Rashidah Idris, F. F. A., Asari, H., Taufik, N. A. A., Salim, N. J., Mustaffa, R., & Jusoff, K. (2011). Determinant of Islamic banking institutions' profitability in Malaysia. *World Appl. Sci. J, 12*, 01-07.

Asutay, M. (2008). *Research Methodology*.

Athanasoglou, P., Delis, M., & Staikouras, C. (2006). Determinants of bank profitability in the South Eastern European region.

Ayadi, N., & Boujelbene, Y. (2012). The determinants of the profitability of the Tunisian deposit banks. *IBIMA Business Review, 2012*.

Ayodeji, S., & Olagunju, M. (2012). Temporal disaggregation of time series data: A non-parametric approach. *Mathematical Theory and Modeling, 2*(5), 7-13.

Barth, J. R., Nolle, D. E., Phumiwasana, T., & Yago, G. (2003). A cross-country analysis of the bank supervisory framework and bank performance. *Financial Markets, Institutions & Instruments, 12*(2), 67-120.

Bashir, A.-H. M. (2003). Determinants of profitability in Islamic banks: Some evidence from the Middle East. *Islamic Economic Studies, 11*(1), 31-57.

Ben Naceur, S., & Goaied, M. (2008). The determinants of commercial bank interest margin and profitability: Evidence from Tunisia. *Frontiers in Finance and Economics, 5*(1), 106-130.

Ben Selma Mokni, R., & Rachdi, H. (2014). Assessing the bank profitability in the MENA region: A comparative analysis between conventional and Islamic bank. *International Journal of Islamic and Middle Eastern Finance and Management, 7*(3), 305-332.

Berger, A. N. (1995). The relationship between capital and earnings in banking. *Journal of Money, Credit and Banking*, 432-456.

Bhutta, N. T., & Hasan, A. (2013). Impact of firm specific factors on profitability of firms in food sector.

Bilal, M., Saeed, A., Gull, A. A., & Akram, T. (2013). Influence of bank specific and macroeconomic factors on profitability of commercial banks: a case study of Pakistan. *Research Journal of Finance and Accounting, 4*(2), 117-126.

BIS. (2008). Principles for sound liquidity risk management and supervision. *BIS, Basel Committee*.

Bourke, P. (1989). Concentration and other determinants of bank profitability in Europe, North America and Australia. *Journal of Banking & Finance, 13*(1), 65-79.

Brooks, C. (2014). *Introductory Econometrics For Finance*: Cambridge university press.

Chua, Z. (2013). Determinants of islamic banks profitability in Malaysia. *Available at SSRN 2276277*.

Cronin, P., Ryan, F., & Coughlan, M. (2008). Undertaking a literature review: a step-by-step approach. *British Journal Of Nursing (Mark Allen Publishing)(17)*, 38-43.

Cucinelli, D. (2013). The determinants of bank liquidity risk within the context of Euro area. *Interdisciplinary Journal of Research in Business, 10*(2), 51-64.

Dawood, U. (2014). Factors impacting profitability of commercial banks in Pakistan for the period of (2009-2012). *International Journal of Scientific and Research Publications, 4*(3), 1-7.

Deep, A., & Schaefer, G. K. (2004). Are banks liquidity transformers?

Diamond, D. W., & Dybvig, P. H. (1983). Bank runs, deposit insurance, and liquidity. *The Journal of Political Economy*, 401-419.

Diamond, D. W., & Rajan, R. G. (2000). A theory of bank capital. *The Journal of Finance, 55*(6), 2431-2465.

Ejoh, N. O., Okpa, I. B., & Egbe, A. A. (2014). The impact of credit and liquidity risk management on the profitability of deposit money banks in Nigeria. *Unpublished Material*.

Eljelly, A. M. (2004). Liquidity-profitability tradeoff: an empirical investigation in an emerging market. *International Journal of Commerce and Management, 14*(2), 48-61.

Elsiefy, E. (2013). Comparative analysis of Qatari islamic banks performance versus conventional banks before, during and after the financial crisis. *International Journal of Business & Commerce, 3*(3).

Francis, M. E. (2013). Determinants of commercial bank profitability in Sub-Saharan Africa. *International Journal of Economics and Finance*, *5*(9), p134.

Gandolfo, G., Martinengo, G., & Padoan, P. C. (1981). *Qualitative analysis and econometric estimation of continuous time dynamic models* (Vol. 136): North-Holland Amsterdam.

Ganić, M. (2014). An empirical study on liquidity risk and its determinants in Bosnia and Herzegovina. *The Romanian Economic Journal, Year XVII no, 52*.

Garbois, C., & Gourp, C. (2012). The Future of Islamic Banking. *A.T. Kearney*.

Garbois, C., & Hall, R. (2013). The New Reality of GCC Banking. *A.T. Kearney*.

Gatev, E., & Strahan, P. E. (2006). Banks' advantage in hedging liquidity risk: Theory and evidence from the commercial paper market. *The Journal of Finance, 61*(2), 867-892.

Gibilaro, L., Giannotti, C., & Mattarocci, G. (2010). Liquidity risk exposure for specialized and unspecialized real estate banks: evidences from the Italian market: European Real Estate Society (ERES).

Goddard, J., Molyneux, P., & Wilson, J. O. (2004a). Dynamics of growth and profitability in banking. *Journal of Money, Credit and Banking*, 1069-1090.

Goddard, J., Molyneux, P., & Wilson, J. O. (2004b). The profitability of european banks: a cross-sectional and dynamic panel analysis. *The Manchester School, 72*(3), 363-381.

Gorton, G. B., & Winton, A. (2014). Liquidity provision, bank capital, and the macroeconomy. *Bank Capital, and the Macroeconomy (January 25, 2014)*.

Goud, B. (2015). Impact of oil prices on sukuk markets. *Thomson Reuters Islamic Finance Gateway* (Thomson Reuters sukuk perceptions & forecast 2015 Beyond traditional markets).

Gray, P. S., Williamson, J. B., Karp, D. A., & Dalphin, J. R. (2007). *The research imagination: An introduction to qualitative and quantitative methods*: Cambridge University Press.

Gujarati, N. (2004). Damodar.(2004). Basic Econometrics: McGraw-Hill Companies.

Gul, S., Irshad, F., & Zaman, K. (2011). Factors affecting bank profitability in Pakistan. *The Romanian Economic Journal, 39*, 61-87.

Guthua, A. M. (2013). The effect of asset liability management on the liquidity risk of commercial banks in Kenya.

Hair, J., Black, W., Babin, B., Anderson, R., & Tatham, R. (2006). Multivariate data analysis sixth edition pearson education. *New Jersey*, 42-43.

Hassan, M. K., & Bashir, A.-H. M. (2003). *Determinants of Islamic banking profitability.* Paper presented at the 10th ERF Annual Conference, Morocco.

Hauke, J., & Kossowski, T. (2011). Comparison of values of Pearson's and Spearman's correlation coefficients on the same sets of data. *Quaestiones geographicae*, *30*(2), 87-93.

Hidayat, S. E., & Abduh, M. (2012). Does financial crisis give impacts on Bahrain Islamic banking performance? A panel regression analysis. *International Journal of Economics and Finance, 4*(7), p79.

Hinkle, D. E., Wiersma, W., & Jurs, S. G. (2003). Applied statistics for the behavioral sciences.

Hoffmann, P. S. (2011). Determinants of the Profitability of the US Banking Industry. *International Journal Of Business And Social Science, 2*(22), 225-269.

Iannotta, G., Nocera, G., & Sironi, A. (2007). Ownership structure, risk and performance in the European banking industry. *Journal of Banking & Finance, 31*(7), 2127-2149.

Ibe, S. O. (2013). the impact of liquidity management on the profitability of banks in Nigeria. *Journal of Finance and Bank Management, 1*(1), 37-48.

Islam, M. M., & Chowdhury, H. A. (2009). A comparative study of Liquidity management of an Islamic bank and a Conventional Bank: The Evidence from Bangladesh. *Journal of Islamic Economics, Banking and Finance, 5*(1), 89-108.

Ismal, R. (2010). *The management of liquidity risk in Islamic banks: the case of Indonesia.* Durham University.

Jenkinson, N. (2008). Strengthening regimes for controlling liquidity risk: some lessons from the recent turmoil. *Bank of England Quarterly Bulletin, Quarterly, 2*.

Karim, B. K., Mohamed Sami, B. A., & Hichem, B.-K. (2010). Bank-specific, industry-specific and macroeconomic determinants of african islamic banks' profitability. *International Journal of Business and Management, 3*(1), 39.

Kebewar, M. (2012). The effect of debt on corporate profitability: Evidence from French service sector. *Available at SSRN 2191075*.

Kosmidou, K., Tanna, S., & Pasiouras, F. (2005). *Determinants of profitability of domestic UK commercial banks: panel evidence from the period 1995-2002.* Paper presented at the Money Macro and Finance (MMF) Research Group Conference.

Kurnia, H. P. (2012). *The Influence of Fundamental Factors to Liquidity Risk on Banking Industry (Case Study between Conventional and Islamic Banks in Indonesia).* Diponegoro University.

Lartey, V. C., Antwi, S., & Boadi, E. K. (2013). The relationship between liquidity and profitability of listed banks in Ghana. *International Journal of Business and Social Sciences, 3*, 48-56.

Maaka, Z. A. (2013). *The relationship between liquidity risk and financial Performance of commercial banks in Kenya.* University of Nairobi.

Mahfudz, A. A. (2006). Performance evaluation of islamic commercial banks in indonesia after the financial crisis. *Tazkia Islamic Finance & Business Review, 1(2)*, 93-107.

Merchant, I. P. (2012). Empirical study of islamic banks versus conventional banks of GCC. *Global Journal of Management and Business Research, 12*(20).

Mohd Ariffin, N. (2012). Liquidity risk management and financial performance in Malaysia: empirical evidence from Islamic banks. *Aceh International Journal of Social Sciences, 1*(2), 68-75.

Molyneux, P., & Thornton, J. (1992). Determinants of European bank profitability: A note. *Journal of Banking & Finance, 16*(6), 1173-1178.

Muda, M., Shaharuddin, A., & Embaya, A. (2013a). Comparative analysis of profitability determinants of domestic and foreign islamic banks in Malaysia. *International Journal of Economics and Financial Issues, 3*(3), 559-569.

Muda, M., Shaharuddin, A., & Embaya, A. (2013b). Profitability determinants and the impact of global financial crisis: A panel data analysis of Malaysian islamic banks. *Research Journal of Finance and Accounting, 4*(7), 121-130.

Mukaka, M. (2012). A guide to appropriate use of Correlation coefficient in medical research. *Malawi Medical Journal, 24*(3), 69-71.

Munteanu, I. (2012). Bank liquidity and its determinants in Romania. *Procedia Economics and Finance, 3*, 993-998.

Naser Ail Yadollahzadeh Tabari, M. A., Ma'someh Emami. (2013). The effect of liquidity risk on the performance of commercial banks. *International Research Journal of Applied and Basic Sciences, 4 (6): 1624-1631*

Nigmonov, A. (2010). Bank performance and efficiency in Uzbekistan. *Eurasian Journal of Business and Economics, 3*(5), 1-25.

Obeidat, B. Y., El-Rimawi, S. Y., Maqableh, M. M., & Al-Jarrah, I. M. (2013). Evaluating the profitability of the islamic banks in Jordan. *European Journal of Economics, Finance and Administrative Sciences*(56).

Olagunju, A., David, A. O., & Samuel, O. O. (2012). Liquidity management and commercial banks' profitability in Nigeria. *Research Journal of Finance and Accounting, 2*(7-8), 24-38.

Ongore, V. O., & Kusa, G. B. (2013). Determinants of financial performance of commercial banks in Kenya. *International Journal of Economics and Financial Issues, 3*(1), 237-252.

Opoku, E. F., Adu, J. K., & Anarfi, B. O. (2014). The Impact of capital structure and profitability of listed banks on the Ghana stock exchange. *Social and Basic Sciences Research Review, 1*(2), 74-91.

Parashar, S. P., & Venkatesh, J. (2010). How did Islamic banks do during global financial crisis. *Banks and Bank systems, 5*(4), 54-62.

Pasiouras, F., & Kosmidou, K. (2007). Factors influencing the profitability of domestic and foreign commercial banks in the European Union. *Research in International Business and Finance, 21*(2), 222-237.

Paul, S. C., Bhowmik, P. K., Islam, M. R., Kaium, M. A., & Al Masud, A. (2013). Profitability and liquidity of conventional banking and islamic banking in Bangladesh: A comparative study. *European Journal of Business and Management, 5*(24), 113-123.

Purbaningsih, R. Y. P., & SE, M. A. (2013). The Effect of liquidity risk and non performing financing (NPF) ratio to commercial sharia bank profitability in Indonesia. *International Proceedings of Economics Development & Research, 73*.

Rajan, R. G., & Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *The Journal of Finance, 50*(5), 1421-1460.

Ramzan, M., & Zafar, M. I. (2014). Liquidity risk management in islamic banks: A study of islamic banks of Pakistan.

Roulet, C. (2012). *Empirical essays on bank liquidity creation and maturity transformation risk: implications for prudential regulation.* Atelier national de reproduction des thèses.

Rozzani, N., & Rahman, R. A. (2013). Determinants of bank performance: conventional versus islamic. *Jurnal Pengurusan, 39*, 129-139.

Saleem, Q., & Rehman, R. U. (2011). Impact of liquidity ratios on profitability. *Interdisciplinary Journal of Research in Business, 1*(7), 95-98.

Šarlija, N., & Harc, M. (2012). The impact of liquidity on the capital structure: a case study of Croatian firms. *Business Systems Research, 3*(1), 30-36.

Sekaran, U., & Bougie, R. (2003). Research methodology for business: *New York: John Wiley & Sons, Inc.*

Sekaran, U., & Bougie, R. (2013). Research methodology for business: New York: John Wiley & Sons, Inc.

Shahchera, M. (2012). *The impact of liquidity assets on Iranian bank profitability.* Paper presented at the *International Conference on Management,* Behavioral Sciences and Economics Issues (ICMBSE'2012).

Sohaimi, A. N. A. (2013). Liquidity risk and performance of banking system in Malaysia. *Available at SSRN 2271427*.

Sufian, F. (2012). Determinants of bank profitability in developing economies: empirical evidence from the South Asian banking sectors. *Contemporary South Asia, 20*(3), 375-399.

Sullivan, E., Rassel, G. R., & Berner, M. (2008). Research methods for public administrators: Longman.

Tariq, W., Usman, M., Mir, H. Z., Aman, I., & Ali, I. (2014). Determinants of commercial banks profitability: Empirical evidence from Pakistan.

International Journal of Accounting and Financial Reporting, 4(2), Pages 1-22.

Tesfaye, T. (2012). Determinants of Banks Liquidity and their Impact on Financial Performance: Empirical study on commercial banks in Ethiopia. *Addis Ababa University.*

Titman, S., & Wessels, R. (1988). The determinants of capital structure choice. *The Journal of Finance, 43*(1), 1-19.

ur Rahman, S., Odera, O., & Ali, Z. (2012). Parameters of conventional and Islamic Bank's profitability in Pakistan: Evaluation of Internal Factor. *Research Journal of Finance and Accounting, 3*(3), 11-18.

Velnampy, T., & Niresh, J. A. (2012). The relationship between capital structure & profitability.

Vodová, P. (2011). Liquidity of Czech commercial banks and its determinants. *International Journal of Mathematical Models and Methods in Applied Sciences, 6*(5), 1060-1067.

Vodová, P. (2013). Determinants of commercial bank liquidity in Hungary. *Finansowy Kwartalnik Internetowy e-Finanse, 9*(3), 64-71.

Vogel, F. E., & Hayes, S. L. (1998). Islamic law and finance: religion, risk, and return (Vol. 16): Brill.

Wabwile, E. S., Chitiavi, M. S., Alala, D. O. B., Douglas, D. M., Khoo, V. C., Obeid, M. Y., . . . Pandey, M. (2014). Financial leverage and performance variance among banks. Evidence of tier 1 commercial banks listed on Nairobi security exchange Kenya. *International Journal of Business and Management Invention, 3*(4), 01-13.

Wasiuzzaman, S., & Nair Gunasegavan, U. (2013). Comparative study of the performance of Islamic and conventional banks: The case of Malaysia. *Humanomics, 29*(1), 43-60.

Wilson, R. (2009). The development of Islamic finance in the GCC.

Wiyono, P. D. S. K., & Sari Rahmayuni, S. (2012). The effect of credit and liquidity risk to islamic bank profitability with islamic income and profit

Sharing Ratio as Moderating Variable [2nd Annual International Conference on Micro and Macro Economics (MME 2012)]. *Annual International Conference on Micro & Macro Economics Research. doi: 10.5176/*2251-2055_MME1238

Zaman, S. J. J. A. K. (2011). Determinants of bank profitability in Pakistan: *Internal Factor Analysis. Journal of Yaşar University, 6(23),* 3794–3804.

Zou, Y., & Li, F. (2014). The impact of credit risk management on profitability of commercial banks: A study of Europe.