

The copyright © of this thesis belongs to its rightful author and/or other copyright owner. Copies can be accessed and downloaded for non-commercial or learning purposes without any charge and permission. The thesis cannot be reproduced or quoted as a whole without the permission from its rightful owner. No alteration or changes in format is allowed without permission from its rightful owner.



**THE IMPACT OF IJARAH FINANCING/LEASING ON
ISLAMIC BANK PERFORMANCE IN MALAYSIA: EMPIRICAL
EVIDENCE**

**By
MOHAMUD SAID YUSUF**



**Research Paper Submitted to
Othman Yeop Abdullah Graduate School of Business
Universiti Utara Malaysia
In Partial Fulfilment of the Requirement for the
Master in Islamic Finance and Banking**

August 2019



Pusat Pengajian Perniagaan Islam
ISLAMIC BUSINESS SCHOOL
كلية إدارة الأعمال الإسلامية
Universiti Utara Malaysia

PERAKUAN KERJA KERTAS PENYELIDIKAN
(Certification of Research Paper)

Saya, mengaku bertandatangan, memperakukan bahawa
(I, the undersigned, certified that)

MOHAMUD SAID YUSUF (823627)

Calon untuk Ijazah Sarjana
(Candidate for the degree of)

MASTER IN ISLAMIC FINANCE AND BANKING (MIFB)

telah mengemukakan kertas penyelidikan yang bertajuk
(has presented his/her research paper of the following title)

***The impact of ijarah financing/leasing on Islamic bank performance in Malaysia:
Empirical evidence***

Seperti yang tercatat di muka surat tajuk dan kulit kertas penyelidikan
(as it appears on the title page and front cover of the research paper)

Bahawa kertas penyelidikan tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan.
(that the research paper acceptable in the form and content and that a satisfactory knowledge of the field is covered by the research paper).

Nama Penyelia : **DR. MOHAMAD YAZID BIN ISA**
(Name of Supervisor)

Tandatangan : 
(Signature)

Tarikh : **15 OGOS 2019**
(Date)

PERMISSION TO USE

(Master by Coursework Candidate)

In presenting this dissertation or research paper in partial fulfilment of the requirements for a post graduate degree from the Universiti Utara Malaysia (UUM), I agree that UUM library may make it freely available for inspection. I further agree that authorization for copying this dissertation or research paper in any manner, in part or in whole, for scholarly purpose may be granted by my supervisor or in his absence by the Dean of Othman Yeop Abdullah Graduate School of Business. It is understood that copying or publication or use of this dissertation or research paper parts of it for financial gain shall not be permitted without my written authorization. It is also understood that due recognition shall be given to me and to Universiti Utara Malaysia for any scholarly use which may be made of any material from my dissertation or research paper.

Requests for permission to copy or to make other use of materials in this thesis, in whole or in part, should be addressed to:



Dean Othman Yeop Abdullah Graduate School of Business
Universiti Utara Malaysia
06010 UUM Sintok
Kedah Darul Aman, Malaysia

Abstract

Ijarah or Leasing becomes one of the most important financing schemes provided by banking institutions to meet the substantive demand from the private and household sectors. The Ijarah financing is mode of financing of Islamic banks offered to the customers and it is the second largest financing of Islamic banks in Malaysia after Murabahah. This study investigates the impact of Ijarah financing of Islamic bank performance in Malaysia. The performance of Islamic banks is measured by return on assets (ROA) and net profit margin (NPM) as dependent variables. This study uses seven (7) independent variables which are divided into two main divisions bank specific and macroeconomic factors. Bank specific factors are factors that can control by Islamic banks and these comprises operating efficiency (EXTA), bank size (LTA), total Ijarah financing (IJTA) and total financing (TFTA) while macroeconomic factors refer to factors that are beyond ability of the Islamic banks and these includes base lending rate (BLR) or Base financing rate (BFR), consumer price index (CPI) and gross domestic product (GDP). The data is limited to the Islamic banks in Malaysia within the period of 2004 until 2018. This study analyses using Random effect models. The results show that Ijarah financing has a positive and significant effect on net profit margin as proxy of Islamic banks performance. However, the Ijarah financing has positive but no significant influence on return on as assets as proxy of Islamic banks performance. The findings suggest Islamic banks to increase the portfolio of Ijarah financing in order to raise up the performance of the Islamic banks. Also, this study has strongly contributed in the existing literature of single country analysis of Islamic banks particularly in the context of Malaysia.

Keywords: Islamic bank performance, Ijarah financing, return on assets (ROA), net profit margin (NPM) gross domestic product (GDP).

Abstrak

Ijarah atau Sewaan merupakan salah satu skim pembiayaan yang penting disediakan oleh institusi perbankan untuk memenuhi permintaan substantif daripada sektor swasta dan isi rumah. Pembiayaan Ijarah merupakan satu mod pembiayaan yang ditawarkan oleh bank Islam kepada pelanggan dan ia merupakan pembiayaan kedua terbesar oleh bank Islam di Malaysia selepas Murabahah. Kajian ini mengkaji kesan pembiayaan Ijarah terhadap prestasi bank Islam di Malaysia. Prestasi bank Islam diukur menggunakan pulangan atas aset (ROA) dan margin untung bersih (NPM) sebagai pembolehubah bersandar. Kajian ini menggunakan tujuh (7) pembolehubah bebas yang dibahagikan kepada dua bahagian utama; faktor khusus bank dan faktor makroekonomi. Faktor-faktor khusus bank adalah faktor yang boleh dikawal oleh bank Islam dan terdiri daripada kecekapan operasi (EXTA), saiz bank (LTA), jumlah pembiayaan Ijarah (IJTA) dan jumlah pembiayaan (TFTA) manakala faktor makroekonomi merujuk faktor yang melampaui kemampuan bank Islam dan termasuk kadar pinjaman asas (BLR) atau kadar pembiayaan asas (BFR), indeks harga pengguna (CPI) dan keluaran dalam negara kasar (KDNK). Data ini terhad kepada bank-bank Islam di Malaysia dalam tempoh 2004 hingga 2018. Kajian ini menggunakan analisis model kesan Rawak. Keputusan menunjukkan bahawa pembiayaan Ijarah mempunyai kesan positif dan signifikan terhadap margin keuntungan bersih sebagai petunjuk prestasi bank Islam. Walau bagaimanapun, pembiayaan Ijarah mempunyai positif tetapi tidak signifikan mempengaruhi pulangan atas aset sebagai petunjuk prestasi bank Islam. Penemuan ini mencadangkan bahawa bank Islam perlu meningkatkan portfolio pembiayaan Ijarah untuk meningkatkan prestasi bank Islam. Selain itu, kajian ini telah menyumbang kepada kewujudan analisa tunggal kesusasteraan bank Islam khususnya dalam konteks Malaysia.

Universiti Utara Malaysia

Kata kunci: Prestasi bank Islam, pembiayaan ijarah, pulangan atas aset (ROA), margin untung bersih (NPM), keluaran dalam negeri kasar (GDP).

Acknowledgement

In the name of Allah, Most Gracious and Most Merciful. I would like to express my countless thankfulness to the almighty Allah S.W.T for giving me the will and strength to finish this thesis in order to fulfill the requirement of Master of Islamic Finance and Banking at Universiti Utara Malaysia.

I would like to thank my supervisor, *Dr Mohamad Yazid bin Isa*, for the patient guidance, inspiration and advice he has provided throughout my time as his student. I have been very lucky to have a supervisor who cared so much about my work, and who responded to my questions and queries so promptly. I really appreciate his knowledge supervision in assisting and guiding me to complete this thesis.

Besides, I want to thank my family for their unconditional support since I started this journey and wishing me to complete and accomplish my dream. My father and mother raised me to faith that I could accomplish anything that I want to reach. Also, I want to appreciate all my siblings for their endless supporting, love and great joy. I am especially grateful to my sister *Anab Said Yusuf*, who supported me emotionally and financially. I always knew that you believed in me and wanted the best for me. Words alone cannot express my greatest appreciation and gratitude to my sister Anab and all my family.

Finally, I would like to thank all my friends, colleagues especially all my classmates who always wishing me success and inspiring me during my study at Universiti Utara Malaysia (UUM). My highest and most sincere appreciation goes to my all lecturers of College of Business and Islamic Business School, especially, lecturers of Islamic Finance and Banking. Thank you so much to everyone who supported me directly and indirectly during my journey.

Table of Contents

Permission to Use	i
Abstract.....	ii
Abstrak.....	iii
Acknowledgement	iv
Table of Contents.....	v
List of Tables	viii
List of Figures.....	ix
List of Appendices	x
List of Abbreviations	xi
CHAPTER ONE (INTRODUCTION).....	1
1.1 Introduction	1
1.2 Background of Study	2
1.3 Problem Statement	6
1.4 Research Questions	8
1.5 Research Objectives	8
1.6 Significant of Study	9
1.7 Organization of thesis	9
CHAPTER TWO (LITERATURE REVIEW).....	10
2.1 Introduction.....	10
2.2 Related theory of the study	10
2.2.1 Theory of Financial Intermediation	10
2.2.2 Theory of information asymmetric	11
2.3 Previous study on determinant of Islamic banks performance in Malaysia.....	12
2.4 Measurement of Bank Performance.....	14
2.5 Bank specific variables	18
2.5.1 Bank size.....	18
2.5.2 Liquidity.....	20
2.5.3 Operational efficiency.....	22
2.5.4 Ijarah Financing	24
2.6 Macroeconomic variables	26
2.6.1 Base Lending/Financing Rate	27

2.6.2 Consumer Price Index	28
2.6.3 Gross Domestic Products (GDP)	30
CHAPTER THREE (DATA AND METHODOLOGY)	32
3.1 Introduction and Data Sample.....	32
3.2 Theoretical Framework	33
3.3 Model Specification	36
3.3.1 Fixed Effects Model (FEM).....	36
3.3.2 Random Effect Model (REM)	37
3.4 Measurement of Variables	37
3.4.1 Dependent variable	37
3.4.1.1 Return on Asset (ROA)	37
3.4.1.2 Net Profit Margin (NPM)	38
3.4.2 Independent variables	38
3.4.2.1 Bank size	38
3.4.2.2 Operational Efficiency.....	39
3.4.2.3 Liquidity	40
3.4.2.4 Ijarah Financing	40
3.4.2.5 Base Lending Rate (BLR)	41
3.4.2.6 Consumer Price Index	41
3.4.2.7 Gross Domestic Product (GDP)	42
3.5 Econometric Tests.....	44
3.5.1 Coefficient of Correlation	44
3.5.2 Variance Inflation Factor (VIF)	45
3.5.3 Heteroskedasticity Tests	45
3.5.4 Hausman Test.....	45
3.5.5 Autocorrelation Tests.....	46
CHAPTER FOUR (FINDINGS AND ANALYSIS).....	47
4.1 Introduction	47
4.2 Descriptive Statistics	47
4.3 Econometrics Tests	50
4.3.1 Correlation	50
4.3.2 Variance Inflation Factor Test	51
4.4 Trends of Ijarah Financing in Malaysia	52

4.5 Performance of Islamic Banks in Malaysia	53
4.5.1 Return Performance of Islamic Banks in Malaysia	53
4.5.2 Trend of Net Profit Margin of Islamic Banks in Malaysia	54
4.6 Regression Results	55
CHAPTER FIVE (CONCLUSION AND RECOMMENDATION)	59
5.1 Introduction	59
5.2 Summary of Findings	59
5.3 Implication of Findings	61
5.3.1 Theoretical Implication	61
5.3.2 Practical Implication	62
5.4 Limitation of the study	63
5.5 Recommendation for Future research	64
REFERENCES.....	65



List of Tables

Table 1.1 List of Islamic banks that offer Ijarah financing.....	4
Table 3.1 Notes down of Islamic Banks in Malaysia.....	32
Table 3.2 Summarize of outcome and regressor variables used in this research.....	43
Table 4.1 Descriptive Statistics of Dependent and Independent Variables.....	47
Table 4.2 Correlation Test.....	50
Table 4.3 Variance Inflation Factor Test.....	51
Table 4.4 Regression results for ROA and NPM.....	55



List of Figures

Figure 1.1 Growth of Malaysian Financing contracts.....	5
Figure 3.1 Theoretical Framework for ROA and NPM Model.....	33
Figure 4.1 Trends of Ijarah Financing/Leasing in Malaysia.....	52
Figure 4.2 Trends of Return Performance of Islamic banks in Malaysia.....	53
Figure 4.3 Trends of Net Profit Margin of Islamic banks in Malaysia.....	54



List of Appendices

APPENDIX.....	73
---------------	----



List of Abbreviations

AITAB	Al-Ijarah Thumma Al-bay
IMB	Al-Ijarah Muntahia Bittamlik
IBIs	Islamic Bank Institutions
BNM	Bank Negara Malaysia
CPI	Consumer Price Index
BLR	Base Lending Rate
GDP	Gross Domestic Products
ROA	Return on Assets
NPM	Net Profit Margin
LTA	Natural Log of Total Assets
IJTA	Total Ijarah over Total Assets
EXTA	Total Expenses over Total Assets
TFTA	Total Financing over Total Assets
VIF	Variance Inflation Factors
REM	Random Effect Model
FEM	Fixed Effect Model
MENAP	Middle East, North Africa and Pakistan
GCC	Gulf Cooperation Council
MENA	Middle East and North Africa
SECP	Securities and Exchange Commission of Pakistan

CHAPTER ONE

INTRODUCTION

1.1 Introduction

Leasing or *Ijarah* is a contract between two parties whose transfer the benefit of an asset to another person and lessee will pay rental fee to lessor based on the mutual agreed period. Bank Negara Malaysia (BNM) has defined *Ijarah* as an agreement that shifts possession for the benefit of assets for a quantified interval in exchange for a specified consideration to another person. The context of *Ijarah* can be divided in to two broad types in Islamic financial system, which are known as *Ijarah* financing and primary *Ijarah*. Under *Ijarah* financing, the clients would have the legal possession at the end of the contract terms plus advantage of using for the assets. On the other hand, under primary *Ijarah* contract, the clients would prefer to use the benefit of asset for agreed interval rather to purchase the assets. (Bank Negara Malaysia, 2018).

As *Ijarah* financing is a substituting mode of financing in comparison with conventional leasing, it is unique and provide best financing option to economic, social, quality, equality and ethical banking (Siddiq, Iqbal & Rahman, 2017). In practice, many Malaysian Islamic banks use contract of *Ijarah Thumma Al-Bai* (lease and sale) for vehicle financing facilities. On the other hand, the conventional leasing is usually based on the interest based model. Therefore, the interest is strictly prohibited in Islamic law.

REFERENCES

- Abduh, M., & Alias, A. (2014). Factors determine Islamic banking performance in Malaysia: a multiple regression approach. *Journal of Islamic Banking and Finance*, 31(1), 44-54.
- Abdul Kader, R., & Yap, K. L. (2008). The impact of interest rate changes on Islamic bank financing. 1-14.
- Abdullah, N. I., & Dusuki, A. W. (2006). Customers' Perceptions of Islamic Hire-Purchase Facility in Malaysia: An Empirical Analysis. *IIUM Journal of Economics and Management*. Vol. 14 (2): 177-204.
- Abdullahi, N & Tan, Y. (2017) Profitability of Commercial Banks revisited: New Evidence from oil and non-oil exporting countries in the MENA region. *Investment Management and Financial Innovations*, 14(3), 62-73.
- Acaravci, s. k., & Calim, a. e. (2013). Turkish banking sector's profitability factors. *International journal of economics and financial issues*, 3(1), 27.
- Adebola, S. S., Yusoff, W. S. W., & Dahalan, J. (2011). The impact of macroeconomic variables on Islamic banks financing in Malaysia. *Research Journal of Finance and Accounting*, 2(4), 22-32.
- Ahmad, N. H., & Noor, M. A. N. M. (2011). The determinants efficiency and profitability of world Islamic banks. In *2010 International Conference on E-business, Management and Economics* (Vol. 3).
- Akerloff A.G. (1970). The market for "lemons": quality uncertainty and the market mechanism. *Quart J Economic*. 84:488-500.
- Akter, J. (2014). Bootstrapped Durbin–Watson test of autocorrelation for small samples. *ABC Journal of Advanced Research*, 3(2), 68-72.
- Alawneh, A., Qwader, A., & Banikahlid, H. H. (2017). The Impact of Al-Mudayanahand Al-Musharakahon the Earning of Islamic Banks: A Case study of the Jordanian Islamic Bank during the Period (2000-2015). *International Journal of Academic Research in Business and Social Sciences*, 7(12), 674-690.
- Al-Damir, N. A. S. (2014). Factors affecting the profitability of Islamic banks in GCC countries (Doctoral dissertation, University Utara Malaysia).

- Alexandru, C., & Romanescu, M. L. (2008). The assessment of banking performances-Indicators of Performance in Bank Area. University Library of Munich, Germany.
- Alharthi, M. (2017). Financial performance and stability in Islamic banks: Evidence from GCC countries. *Corporate Ownership and Control*, 14 (4), 103-113.
- Ali, K., Akhtar, M. F., & Ahmed, H. Z. (2011). Bank-specific and macroeconomic indicators of profitability-empirical evidence from the commercial banks of Pakistan. *International Journal of Business and Social Science*, 2(6), 235-242.
- Ali, Q., Maamor, S., Yaacob, H., & Gill, M. U. T. (2018). Impact of macroeconomic variables on Islamic banks profitability. *Journal of Accounting and Applied Business Research*, 1(2), 1-16
- Alkhazaleh, A. M., & Almsafir, M. (2014). Bank specific determinants of profitability in Jordan. *Journal of Advanced Social Research*, 4(10), 01-20.
- Alkhazaleh, K., Mansour, A., & Al-Dwiry, M. (2018). To what extent does financial leasing has impact on the financial performance of Islamic banks: a case study of Jordan. *Academy of Accounting & Financial Studies Journal*, 22(1).1-14
- Allen, F., & Santomero, A. M. (1998). The theory of financial intermediation. *Journal of Banking & Finance*, 21(11-12), 1461-1485.
- Almsafir, M. K., & Alharthi, A. M. (2015) Case Study of the Relationship between Islamic Finance Modes and Financial Performance in Malaysia. *American International Journal of Contemporary Research*, 5(6), 185-190.
- Al-Rdaydeh, M., Matar, A., & Alghzwai, O. (2017). Analysing the effect of credit and liquidity risks on profitability of conventional and Islamic Jordanian Banks. *International Journal of Academic Research in Business and Social Sciences*, 7(12), 1145-1155.
- Ameur, I. G. B., & Mhiri, S. M. (2013). Explanatory factors of bank performance evidence from Tunisia. *International Journal*, 2(1), 1-11.
- 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.

- Ariccia, G. D. (1998). Asymmetric Information and the Market Structure of Banking Industry, IMF Working Papers WP/98/92, *International Monetary Fund, Research Department*.
- Arshed, N., Riaz, S., Khan, T., & Aziz, O. (2017). Financial Disintermediation and Profitability of Global Islamic Banks. *European Journal of Islamic Finance*, (7), 1-11.
- Asutay, M., & Izhar, H. (2007). Estimating the profitability of Islamic banking: evidence from bank Muamalat Indonesia. *Review of Islamic Economics*, 11(2), 17-29.
- Athanasoglou, P. P., Brissimis, S. N., & Delis, M. D. (2008). Bank-specific, industry-specific and macroeconomic determinants of bank profitability. *Journal of international financial Markets, Institutions and Money*, 18(2), 121-136.
- Aziz, N. I. M. (2017). Islamic Banking Profitability: Roles played by Internal and External Banking Factors. *The Journal of Muamalat and Islamic Finance Research*, 14(1), 23-38.
- Baltagi, B.H (2005). *Econometric Analysis of Panel data*. 3rd Edition, John Wiley and Sons Inc., New York.
- Bank Negara Malaysia (2018) Ijarah Contracts. Retrieved 31 January 2019 from <http://www.bnm.gov.my/index.php?ch=57&pg=137&ac=530&bb=file>
- Bank Negara Malaysia (2019). Islamic banking system: Financing by concept. Retrieved 10 May 2019 from http://www.bnm.gov.my/index.php?ch=en_publication&pg=en_msb&ac=270&en&uc=2
- Bashir, A.H.M. (2003). Determinants of Profitability in Islamic Banks: Some Evidence from the Middle East. *Islamic Economic Studies*, 11(1), 31-57.
- Bourke, P. (1989). Concentration and other determinants of bank profitability in Europe, North America and Australia. *Journal of Banking & Finance*, 13(1), 65-79.
- Chaudary, M., Chathrath, A., & Kamath, R. (1995). Determinants of bank profitability. *American Journal of Business*, 10(1), 41-46.

- Chhapra, I. U., Ahmed, A., Rehan, R., & Hussain, F. (2018). Consumer's Preference and Awareness: Comparative Analysis between Conventional and Islamic Ijarah Auto Financing in Pakistan. *Al-Iqtishad Journal of Islamic Economics*, 10(2), 389-402.
- Chi, n. t. d., Hang, l. t. t., & Trang, n. t. t. (2018) analysis of internal factors affecting bank profitability: evidence from listed banks on Vietnam stock market. *The 5th IBSM International Conference on Business, Management and Accounting*, f4 (57), 461-472
- Chowdhury, M. A. F., Haque, M. M., & Masih, M. (2017). Re-examining the determinants of Islamic bank performance: new evidence from dynamic GMM, quantile regression, and wavelet coherence approaches. *Emerging Markets Finance and Trade*, 53(7), 1519-1534.
- Diamond, D. (1984). Financial intermediation and delegated monitoring. *Review of Economic Studies*, 51, 393-414.
- Farrar, D. E. and Glauber, R. R. (1967) Multicollinearity in regression analysis: the problem revisited, *Review of Economics and Statistics*, 49, 92-107.
- Fayed, M. E. (2013). Comparative performance study of conventional and Islamic banking in Egypt. *Journal of Applied Finance and Banking*, 3(2), 1.
- Flamini, V., Schumacher, M. L., & McDonald, M. C. A. (2009). The determinants of commercial bank profitability in Sub-Saharan Africa (No. 9-15). *International Monetary Fund*. 1-30.
- Girard, E., Nolan, J., & Pondillo, T. (2010). Determinants of emerging markets' commercial bank stock returns. *Global journal of business research*, 4(2), 11-26.
- Gogtay, N. J., & Thatte, U. M. (2017). Principles of correlation analysis. *Journal of the association of physicians of India*, 65, 78-81.
- Grant, C. & Osanloo, A. (2014). Understanding, Selecting, and Integrating a Theoretical Framework in Dissertation Research: Creating the Blueprint for 'House'. *Administrative Issues Journal*, 4(2), 12-26.
- Gul, S., Irshad, F., & Zaman, K. (2011). Factors Affecting Bank Profitability in Pakistan. *Romanian Economic Journal*, 14(39). 61-87.

- Hair, J.F Back, W.C. Babin, B.J. & Anderson, R. E. (2014), exploratory factor analysis. Multivariate data analysis, 7th Pearson new international ed. Harlow: Pearson
- Hamadi, H., & Awdeh, A. (2012). The determinants of bank net interest margin: Evidence from the Lebanese banking sector. *Journal of Money, Investment and banking*, 23(3), 86-98
- Hanif, M., Tariq, M., & Tahir, A. (2012). Comparative performance study of conventional and Islamic banking in Pakistan. *International Research Journal of Finance & Economics*, (83). 63-72.
- Heffernan, S., & Fu, M. (2008). The determinants of bank performance in China. Emerging Markets Group Cass Business School City University 106 Bunhill Row London.
- Heikal, M., Khaddafi, M., & Ummah, A. (2014). Influence analysis of return on assets(ROA), return on equity(ROE), net profit margin(NPM), debt to equity ratio(DER), and current ratio(CR), against corporate profit growth in automotive in Indonesia Stock Exchange. *International Journal of Academic Research in Business and Social Science*, 4(12), 101.
- Hesse, H., Jobst, A. A., & Sole, J. (2008). Trends and challenges in Islamic finance. *World Economics*, 9(2), 175-193.
- Ifeacho, C., & Ngalawa, H. (2014). Performance of the South African banking sector since 1994. *Journal of Applied Business Research*, 30(4), 1183.
- Ivanovic, M. (2016). Determinants of credit growth: The case of Montenegro. *Journal of Central Banking Theory and Practice*, 2016, 2, pp. 101-118.
- Jamal, A. A. A., Hamidi, M., & Karim, M. R. A. (2012). Determinants of commercial banks' return on asset: panel evidence from Malaysia. *International Journal of Commerce, Business and Management*, 1(3), 55-62.
- Kanwal, S., & Nadeem, M. (2013). The impact of macroeconomic variables on the profitability of listed commercial banks in Pakistan. *European journal of business and social sciences*, 2(9), 186-201.
- Kemei, J. C. (2014). The Effects of Information Asymmetry in the Performance of the Banking Industry: A Case Study of Banks in Mombasa County. *International Journal of Education and Research*, 2(2), 1-6.

- Kennedy, P. (2008) *A Guide to Econometric*. 6th ed., Blackwell Publishing, Malden.
- Kiganda, E. O. (2014). Effect of macroeconomic factors on commercial banks profitability in Kenya: Case of equity bank limited. *Journal of Economics and Sustainable Development*, 5(2), 46-56.
- Kosmidou, K., Tanna, S., & Pasiouras, F. (2005, June). Determinants of profitability of domestic UK commercial banks: panel evidence from the period 1995-2002. In *Money Macro and Finance (MMF) Research Group Conference* (Vol. 45, pp. 1-27).
- Leland, H.E., and Pyle, D.H. (1977). Informational asymmetries, financial structure, and financial intermediation, *Journal of Finance* 32, 371-387.
- Lelissa, T. B. (2014). The determinants of Ethiopian commercial banks performance. *European Journal of Business and Management*, 6(14), 52-62.
- Lenka, S. K., & Sharma, P. (2015). FDI as a main determinant of economic growth: a panel data analysis. *Annual Research Journal of Symbiosis Centre for Management Studies*, 1, January 2013-January 2014, 84, 9.
- Lukorito, S. N., Muturi, W., Nyangan, A. S., & Nyamasege, D. (2014). Assessing the effect of liquidity on profitability of commercial banks in Kenya. *Research Journal of Finance and Accounting*, 5(19), 145-152.
- Magweva, R., & Marime, N. (2016). Bank specific factors and bank performance in the multi-currency era in Zimbabwe. *African Journal of Business Management*, 10(15), 373-383.
- Maysa'a, M.M & Rasha, M.S (2015). Financial Performance of Islamic and Conventional Banks: Evidence from Jordan. *Global Journal of Business Research*, 9(3), 27-41.
- Mishkin, F.S. (1992) "Anatomy of a financial crisis" *Journal of Evolutionary Economics* June 1992, Volume 2, Issue 2, pp 115–130
- Miyajima, K. (2017). What influence bank lending in Saudi Arabia? Washington, D.C. *International Monetary Fund*, Middle East and Central Asia Dept.
- Molyneux, P. & Thornton, J. (1992). Determinants of European bank profitability: A note. *Journal of Banking and Finance*, No. 16, pp. 1173-1178.
- Mousa, M. A. B., & Chedia, H. (2016). Determinants of bank lending: Case of Tunisia. *International Journal of Finance and Accounting*, 5(1), 27-36.

- Mukaka, M. M. (2012). A guide to appropriate use of correlation coefficient in medical research. *Malawi Medical Journal*, 24(3), 69-71.
- Noman, A. H. M. (2015). An empirical investigation of the profitability of Islamic banks in Bangladesh. *Global Journal of Management and Business Research*, 15 (4), 11-22.
- Noman, A. H. M., Chowdhury, M. M., Chowdhury, N. J., Kabir, M. J., & Pervin, S. (2015). The effect of bank specific and macroeconomic determinants of banking profitability: A study on Bangladesh. *International Journal of Business and Management*, 10(6), 287.
- 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.
- Rashid, A., & Jabeen, S. (2016). Analysing performance determinants: Conventional versus Islamic banks in Pakistan. *Borsa Istanbul Review*, 16(2), 92-107.
- Raza, A., Akram, M., & Alam, H. M. (2011). Financial Performance of Leasing Sector. The Case of Pakistan. *Interdisciplinary Journal of Contemporary Research in Business*. Vol. 2(12): 339-345.
- Razi, N. (2014). Islamic Banking System and Mode of Leasing: A Comparative Analysis in the Light of Maqasid al-Shariah. *Cultural and Religious Studies*. Vol. 2(6): 349-359
- Saeed, M. S. (2014). Bank-related, industry-related and macroeconomic factors affecting bank profitability: a case of the United Kingdom. *Research journal of finance and accounting*, 5(2), 42-50.
- Samhan, H. M., & Al-Khatib, A. Y. (2015). Determinants of financial performance of Jordan Islamic bank. *Research Journal of Finance and Accounting*, 6(8), 37-47.
- Scholten, L.J., & Wensveen, D.V. (2003). The theory of financial intermediation: An on what it does (not) explain. Vienna: SUERF.
- Shingjergji, A., & Hyseni, M. (2015). The impact of macroeconomic and banking factors on credit growth in the Albanian Banking System, *European Journal of Economics and Business Studies*, 2(1), 113.
- Siddiq, M. A., Iqbal, K., & Rahman, S. U. (2017). Ijarah Financing and Customer Satisfaction: a Perspective from Pakistan. *Journal of Management Research (JMR)*, 3(1), 135-143.

- Simai, A. J. (2013). Determinants of the profitability of Islamic banks: a survey of Zanzibar Islamic banks (Doctoral dissertation, Mzumbe University).
- Sindani Wafula, P., Namusonge, G.S. & Nambuswa, E. (2016). Effect of Leasing on the Financial Performance of the County Government of Trans Nzoia. *International Journal of Scientific and Research*, 6(9).
- Sufian, F., & Habibullah, M. S. (2010). Assessing the impact of financial crisis on bank performance: Empirical evidence from Indonesia. *ASEAN Economic Bulletin*, 245-262.
- Tan, Y., & Floros, C. (2012). Bank profitability and GDP growth in China: a note. *Journal of Chinese Economic and Business Studies*, 10(3), 267-273.
- Tarus, D. K., Chekol, Y. B., & Mutwol, M. (2012). Determinants of net interest margins of commercial banks in Kenya: A panel study. *Procedia Economics and Finance*, 2, 199-208.
- Trad, N., Trabelsi, M. A., & Goux, J. F. (2017). Risk and profitability of Islamic banks: A religious deception or an alternative solution. *European Research on Management and Business Economics*, 23(1), 40-45
- Vejjagic, M., & Zarafat, H. (2014). An analysis of macroeconomic determinants of commercial banks profitability in Malaysia for the period 1995-2011. *Journal of Asian Economy and Financial Review*, 4(1).
- Vinh, N. T. (2017). The impact of non-performing loans on bank profitability and lending behaviour: Evidence from Vietnam. *Journal of Economics Development*, 24(3), 27-44.
- Wasiuzzaman, S., & Tarmizi, H. A. B. A. (2010). Profitability of Islamic banks in Malaysia: an empirical analysis. *Journal of Islamic Economics, Banking and Finance*, 6(4), 53-68.
- Yahya, A. T., Akhtar, A., & Tabash, M. I. (2017). The impact of political instability, macroeconomic and bank-specific factors on the profitability of Islamic banks: An empirical evidence. *Investment Management and Financial Innovations*, 14(4), 30-39.
- Yusoff, R., & Kamdari, N. A. M. (2014). Selection factors of the acceptance al-ijarah thumma al bay (aitab) in Kota Bharu, Kelantan. *Malaysian Journal of Business and Economics (MJBE)*, 1(2).

APPENDIX

ROA Islamic Banks Random Effect

```

Random-effects GLS regression           Number of obs   =       172
Group variable: code                   Number of groups =        12

R-sq:  within = 0.0160                 Obs per group:  min =       13
        between = 0.6525                avg =             14.3
        overall = 0.0999                max =             15

corr (u_i, X) = 0 (assumed)            Wald chi2(7)    =       62.30
                                         Prob > chi2     =       0.0000

```

(Std. Err. adjusted for 12 clusters in code)

roa	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
lta	-.0644821	.1353943	-0.48	0.634	-.3298501	.200886
ijta	.6987527	.6674523	1.05	0.295	-.6094298	2.006935
exta	-41.09332	21.72151	-1.89	0.059	-83.6667	1.480066
tfta	-.0202457	.779155	-0.03	0.979	-1.547361	1.50687
blr	.1841479	.1439233	1.28	0.201	-.0979366	.4662323
cpi	-.124333	.0658334	-1.89	0.059	-.253364	.0046981
gdp	.0129183	.0189041	0.68	0.494	-.024133	.0499696
_cons	1.198269	2.000856	0.60	0.549	-2.723336	5.119874
sigma_u	0					
sigma_e	.94193934					
rho	0	(fraction of variance due to u_i)				

ROA Islamic Bank Fixed Effect

```

Fixed-effects (within) regression       Number of obs   =       172
Group variable: code                   Number of groups =        12

R-sq:  within = 0.0309                 Obs per group:  min =       13
        between = 0.0669                avg =             14.3
        overall = 0.0333                max =             15

corr(u_i, Xb) = -0.2528                F(7,11)        =       0.45
                                         Prob > F        =       0.8488

```

(Std. Err. adjusted for 12 clusters in code)

roa	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
lta	.1906577	.3818527	0.50	0.627	-.6497945	1.03111
ijta	1.229473	1.303996	0.94	0.366	-1.640603	4.099549
exta	-21.75765	34.86558	-0.62	0.545	-98.49629	54.98098
tfta	-.7457932	1.222099	-0.61	0.554	-3.435614	1.944028
blr	-.0173646	.2192229	-0.08	0.938	-.4998709	.4651418
cpi	-.074942	.0568755	-1.32	0.214	-.2001241	.05024
gdp	.0233713	.0274447	0.85	0.413	-.037034	.0837766
_cons	-1.661256	4.312218	-0.39	0.707	-11.15238	7.829871
sigma_u	.40439867					
sigma_e	.94193934					
rho	.15563395	(fraction of variance due to u_i)				

NPM Islamic Bank Random Effect

```

Random-effects GLS regression           Number of obs   =    166
Group variable: code                   Number of groups =    12

R-sq:  within = 0.1307                 Obs per group:  min =    13
        between = 0.2732                avg =    13.8
        overall = 0.1393                max =    15

corr(u_i, X) = 0 (assumed)             Wald chi2(7)    =   212.23
                                           Prob > chi2     =    0.0000

```

(Std. Err. adjusted for 12 clusters in code)

npm	Coef.	Robust Std. Err.	z	P> z	[95% Conf. Interval]	
lta	-.065658	.1987448	-0.33	0.741	-.4551906	.3238746
ijta	1.693041	.8685854	1.95	0.051	-.0093548	3.395437
exta	65.43636	27.8178	2.35	0.019	10.91447	119.9582
tfta	-.1213844	.9189941	-0.13	0.895	-1.92258	1.679811
blr	.0498201	.1795349	0.28	0.781	-.3020619	.4017022
cpi	-.1254627	.0806581	-1.56	0.120	-.2835498	.0326244
gdp	.058195	.0234557	2.48	0.013	.0122227	.1041672
_cons	2.018041	2.907482	0.69	0.488	-3.680518	7.7166
sigma_u	.25981371					
sigma_e	1.0065773					
rho	.06246238	(fraction of variance due to u_i)				

NPM Islamic Bank Fixed Effect

```

Fixed-effects (within) regression       Number of obs   =    166
Group variable: code                   Number of groups =    12

R-sq:  within = 0.1380                 Obs per group:  min =    13
        between = 0.1198                avg =    13.8
        overall = 0.1153                max =    15

corr(u_i, Xb) = -0.3665                F(7,11)        =   30.54
                                           Prob > F        =    0.0000

```

(Std. Err. adjusted for 12 clusters in code)

npm	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
lta	.0915642	.4095521	0.22	0.827	-.809854	.9929824
ijta	2.725549	1.377065	1.98	0.073	-.3053509	5.756449
exta	74.73471	40.65604	1.84	0.093	-14.74864	164.2181
tfta	-.911608	1.168005	-0.78	0.452	-3.48237	1.659154
blr	.0046763	.2773783	0.02	0.987	-.6058293	.6151819
cpi	-.1076988	.0735977	-1.46	0.171	-.2696861	.0542886
gdp	.0609819	.0325273	1.87	0.088	-.0106103	.132574
_cons	-.0824322	4.737476	-0.02	0.986	-10.50955	10.34468
sigma_u	.38471155					
sigma_e	1.0065773					
rho	.12745682	(fraction of variance due to u_i)				