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SYSTEMATIC RISK AND FINANCIAL PERFORMANCE OF LISTED DEPOSIT MONEY BANKS IN NIGERIA

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Abstract
Banks in Nigeria experienced dwindling in financial performance as well as financial crisis within the period of the study. Therefore, this study examined the impact of systematic risk on financial performance of listed deposit money banks in Nigeria. Using a sample size of 13 banks for the period of 2007 – 2019, the effect of foreign exchange risk, inflation risk and financial crisis risk on financial performance proxy by return on equity was investigated. Secondary data is collected from the financial statements of the selected banks which was analysed using panel regression. The result of the analysis reveals that foreign exchange risk has positive insignificant relationship with financial performance of banks, inflation risk has positive significant relationship with banks financial performance and financial crisis risk has negative significant relationship on financial performance of Nigerian banks. The study therefore recommends that listed banks in Nigeria should be more cautious in their business operations during inflationary and financial crisis periods. They should also reduce their engagement in foreign exchange business.

Keyword: Foreign Exchange, Inflation Risk, Financial Crisis Risk and Financial Performance

1. Introduction

Banks' financial performance is commonly assessed in terms of the returns in monetary terms that a bank can generate over a certain period in its business operations. Though some argue that financial performance involves a subjective measure of how well a bank can use its assets from primary mode of operations and generate incomes (Nzoka, 2015), it is still used as a general measure of a bank financial health for a given period of time. Analysts and investors use financial performance to compare similar organizations across the same industry or to compare industries or sectors in aggregate within a particular country.

Due to the nature of their operations, banks often face a lot of risks which have the tendency to affect the eventual returns realised by them and thereby affect their financial performance. In

particular, systematic risks; risks that cannot be eliminated or avoided through diversification; and can only be mitigated through hedging are likely to affect banks more. Systematic risk consists of interest risk, foreign exchange risk, inflation risk, equity price and financial crisis, among others. Foreign exchange risk arises as a result of fluctuations in the process of exchanging foreign currencies with the local currency. In the context of this study inflation risk is the possibility that the cash flow from an investment would not be worth as much as in the future because of the changes in the purchasing power of currency as a result of inflation. Financial crisis risk is a period in which banks as financial institution may find it difficult to meet up with customers' demands in terms of withdrawal and loan due to the shortage of liquidity.

The foreign exchange risk variable is in particular considered very important because Nigerian banks engage in business of buying and selling foreign currencies, and within the period of this study, most especially the 2015 to 2019 years, the Nigerian economy witnessed high rate of fluctuation in foreign exchange that affected so many businesses in Nigeria, of which banks were not excluded. Also, the Nigerian economy witnessed high rate of inflation from 2015 to 2019 which affected the value of Naira and Nigerian banks as a creditors or lenders of funds loss during inflation period. This is because at the time of repayment of loan by the debtors to the banks, the money loss some purchasing power which affect the earnings of banks negatively. In addition, Nigerian banks suffered a lot during financial crisis that the country experienced within the period of this study. Whether or not all these significantly affected the performance of the studied banks within the said period is what this study sought to establish.

From the literature, it is documented that Nigerian studies such as the work of Abiola and Olausi (2014), Muhammed (2017) and Olajide (2013) used credit risk, liquidity risk, operational risk, capital adequacy risk, interest risk, deposit risk and assets quality risk as proxies for risk variable. While there are foreign studies that look at the effect of financial crisis risk on bank performance, to the best of the researchers' knowledge no Nigerian study included financial crisis risk variables as a proxy of risk in their study. In order to address this gap, financial crisis risk variable is included as a proxy of risk in this study in order to address variable inclusion gap.

The paper is in parts. Section two reviews both empirical and theoretical literature in order to provide a basis for the research. Section three presents the methodology employed by the study. Section four provides a discussion of the results that culminate in the findings of the study. Section five concludes and sets forth recommendations of the study.

2. Empirical Review

Several empirical literatures were reviewed on the relationship between foreign exchange risk, inflation risk, financial crisis risk and financial performance of banks.

2.1 Foreign Exchange Risk and Financial Performance

An empirical study was conducted by Hoseininassab *et al*, (2013) on effect of risk on financial performance of Iranian banks for period of 2005 to 2011.Using OLS multiple regression as tool of analyzing data, they reported a positive significant relationship between foreign exchange risk and financial performance. Moteti (2014) studied the relationship between foreign exchange risk and financial performance of banks in Kenya for the period of 2009 to 2013 using multiple

regressions for data analysis and found negative significant correlation between foreign exchange risk and financial performance.

Similarly, Olufemi (2011) evaluated the influence of foreign exchange risk on financial performance of Nigerian listed firms for the period of 1998 to 2007 using multiple regression as tools of analysis and found positive significant relationship between foreign exchange risk and financial performance. Kihara and Muturi (2016) investigate the effect of foreign exchange risk on financial performance of banks in Kenya for period of 2015 financial year using multiple regressions and the result reveals positive significant relationship between foreign exchange risk and financial performance. Ekinci (2016) studied the effect of foreign exchange risk on bank performance for period of 2002 to 2015 in Turkey. Multiple regressions were used to analyzed the data and found positive significant relationship between foreign exchange risk and financial performance.

Another study was conducted by Noor and Abdalla (2014) on the impact of foreign exchange risk on firms' performance of listed companies in Kenya. The finding of the study reveals that the ability of the firms to manage their foreign exchange risk would improve their profitability. Ahmed, Azevedo and Guney (2013) studied the effect of foreign exchange risk on performance of listed companies in UK using multiple regressions as tools of analyzing the secondary data and the result of the analysis reveals a positive significant relationship between foreign exchange risk and financial performance of firms.

Muiru *et al,* (2018) explored the influence of foreign exchange risk on financial performance of 54 banks in Kenya for the period of 2011 to 2016. Panel multiple regression is adopted and reported positive significant relationship between foreign exchange risk and financial performance of banks. Josphat and Joseph (2019) investigate the effect of foreign exchange risk on financial performance of 13 banks in Kenya using panel regression in analysing the data and found insignificant positive relationship between foreign exchange risk and financial performance of the banks. Odhiambo and Mokori (2019) investigate the effect of foreign exchange risk on financial performance of banks in Kenya using panel multiple regression and found that foreign exchange risk has negative significant effect on financial performance of banks.

Also, Ahmed (2015) examined the effect of foreign exchange risk on the financial performance of banks listed in Nairobi Stock Exchange, Kenya by adopting multiple regression as tool of analyzing the data and result of the analysis exhibited a negative significant relationship between foreign exchange risk and financial performance of banks. Luostarinen (2011) investigated the impact of foreign exchange risk on financial performance of firms for the period of 2010 to 2011 using regression as techniques of analysis and found evidence of positive significant relationship between foreign exchange risk and financial performance of the selected firms. However, most of these studies failed to provides theories that underpin their studies.

2.2 Inflation Risk and Financial Performance

The study by Otieno *et al,* (2016) examine the relationship between inflation risk and financial performance of microfinance banks in Kenya for the period of 2011 to 2015 using multiple regressions and the result of the analysis reveals evidence of positive significant association

between inflation risk and financial performance. Bizuayehu (2015) studies the impact of inflation risk on financial performance of banks in Ethiopia for the period of 11 years using multiple regression tool of analysis and found negative insignificant relationship between inflation risk and financial performance.

Isaac (2015) assessesed the impact of inflation risk on banks' performance in Nigeria for the period of 1997 to 2013 using multiple regression and reported negative insignificant relationship between inflation rate risk and financial performance. Khan *et al,* (2014) examine the impact of inflation risk on banks performance in Pakistan for the period of 2009 to 2013 using trend analysis and found strong significant positive relationship between inflation risk and financial performance.

Maigua and Mouni (2016) investigate the influence of inflation risk on financial performance of banks in Kenya using population of 43 banks in Kenya. Multiple regressions analysis is used in data analysis and found significant positive influence of inflation risk on financial performance of banks. Alfani and Rustandar (2013) examined the impact of inflation risk on profitability of listed banks in Indonesian Stock Exchange for the period of 2006 to 2010 using multiple regressions and found evidence of negative insignificant relationship between inflation risk and financial performance of the banks. Tsuma and Gichinga (2016) examine the factors that influence the financial performance of banks in Kenya and found positive correlation between inflation risk and financial performance of the banks.

Amin *et al,* (2014) examine the influence of financial risks on the financial performance of commercial banks in Tanzania by adopting the instrumental variable regression of fixed effect as techniques of analysis and the results shows that inflation risk has positive significant impact on banks' financial performance. Guruswamy and Hedo (2014) examine the impact of macroeconomic variables on financial performance of banks in Ethiopia for period of 2002-2013. The study discovers inflation risk have no significant relationship with financial performance of banks. Samhan and Al-Khatib (2015) examine the determinants of financial performance of Jordan Islamic bank for the period 2000-2012 using multiple regressions as tools of analysis; the result reveals positive insignificant relationship between inflation risk and financial performance.

Ongore (2013) investigates the determinants of financial performance of banks in Kenya for the period of 2001 to 2011 using multiple regression as tool of analysis and found evidence of negative significant relationship between inflation risk. Kweh *et al,* (2018) studied the relationship between inflation risk and performance of banks in Malaysia for the period of 2008 to 2012 using multiple regressions as tools of analysis. The result of the analysis reveals a positive significant relationship between inflation risk and financial performance of the banks. However, most of these studies failed to provides theories that underpin their studies.

3.3 Financial Crisis Risk and Financial Performance

Yap *et al,* (2014) study the effect of financial crisis on financial performance of Malaysian companies for the period of 2006 to 2010 using panel regression as technique of analysis and

found significant positive correlation between financial crisis risk and financial performance. Sangeetha (2012) investigates the effect of financial crisis on financial performance of banks in Oman for the period of 2005 to 2009 using compound annual growth rate approach as method of analysis and found insignificant positive association between financial crisis risk and financial performance of banks. Claessens and Horen (2014) explore the impact of global financial crisis risk on bank performance globally using 107 countries as case study for the period of 2007 to 2012. Multivariate analyses were conducted using cross-sectional data and found negative insignificant relationship between financial crisis risk and financial performance of banks.

Li *et al,* (2020) examined the impact of financial crisis risk on financial performance of fintech and traditional financial institutions in U.S. using granger causality as technique of data analysis. The result of the analysis reveals a significant positive relationship between financial crisis risk and financial performance of the institutions. Another study is conducted by Guo *et al,* (2021) on the relationship between financial crisis risk and financial performance of 19 international financial institutions in Japan using panel regression as tool of analysis and discovers evidence of significant positive relationship between financial crisis risk and financial performance of banks.

Zarrouk (2014) studies the impact of international financial crisis risk on performance of Islamic banks in 10 countries from Middle East and North American for the period of 2005 to 2009 using multiple regressions as technique of analysis and found evidence of significant negative relationship between financial crisis and financial performance of the banks. Chaudhary and Abbas (2017) examined the effect of global financial crisis on financial performance of banks in Pakistan for the period of 2005 to 2012 using multiple regression technique of data analysis and found evidence of significant negative relationship between financial crisis risk and financial performance of the banks.

Moreover, Tabash and Dhankar (2014) studied the impact of global financial crisis on financial performance of Islamic banks in the Kingdom of Saudi Arabia for the period of 2005 to 2010 using multiple regression. The result reveals significant positive relationship between financial crisis and financial performance of the banks. Also, Gavronski and Ziegelman (2021) study the relationship between financial crisis risk and financial performance of banks and insurance companies across the globe for the period of 2007 to 2013 using multiple regression as tool of analysis and found negative significant relationship between financial crisis risk and financial performance of the financial institutions. Similarly, Wasiuzzaman *et al,* (2021) explore the effect of financial crisis risk on financial performance of banks for the period of 2019 to 2020 using regression to analyse the quarterly data collected for the study. The finding of the study shows positive significant effect of financial crisis risk on financial performance of the banks.

Mohamed and Khalid (2014) examine the extent to which the recent international financial crisis had an impact on the financial performance of the banking sector in Oman using simple t-test of the difference between means to check whether there is a significant difference in banks' performance before and after the crisis. The result shows that the effect of international financial crisis risk on the banks' financial performance is statistically insignificant. Alqudah and Malkawi (2014) examined the impact of the world financial crisis and openness of the economy on the financial performance of Jordanian listed banks through the period 2005-2008 Panel regression,

the results show that the world financial crisis risk has a negative and significant impact on financial performance. Almanaseer (2014) investigate the impact of global financial crisis on financial performance of banks using 24 Islamic banks operating in Bahrain, Kuwait, Qatar, Saudi Arabia and United Arab Emirate over the 2005-2012 periods. Multiple regression is used for data analysis and discovers that the financial crisis risk did not have significant impact on Islamic banks financial performance. However, most of these studies failed to provides theories that underpin their studies.

The Expected Utility Theory was developed by Bernoulli (1944). The Theory deals with the analysis of situations where individuals must make a decision without knowing which outcomes may result from that decision, this is, decision making under risk condition. The decision made will also depend on the individual's risk aversion and the utility of other individuals. The banking business all over the world involves a lot of risk and the banks must make a decision under such risk condition with the hope of making profit. The banks in Nigeria collect money from their customers in forms of deposit for safe keeping which they used to issue loans to other customers who are in the need of cash in return for payments of interest which enable banks to generate interest income for better financial performance. Since, the major utility that the banks want to derive from taking risky decision on daily basis is to make profit in order to satisfy the interest of their shareholders by paying them dividend at the end of every accounting period. Therefore, this Theory is adopted for the study in order to support the relationship between risk proxied by foreign exchange risk, inflation risk as well as financial crisis risk and financial performance of banks in Nigeria.

3. Methodology and Data

The study adopted correlational research design to measure the relationship between systematic risk and financial performance of listed banks in Nigeria for the period of 2007 - 2019. The adjusted population of this study consists of 13 banks listed on the Nigerian Stock Exchange as at 31st December, 2019. Secondary data is collected from the annual financial statements of the banks which is analysed using panel multiple regression. Panel regression is considered appropriate in view of the fact that it helps in not only establishing relationship between dependent and independent variables, but also depicts causes and effect of their relationship.

The model of the study is given below:

$$\mathbf{ROE_{it} = \beta_{0it} + \beta_1 FER_{it} + \beta_2 IFR_{it} + \beta_3 FCR_{it} + \varepsilon_{it}} \quad \textbf{(1)}$$

Where:

ROE = Return on Equity
FER= Foreign Exchange Risk
IFR = Inflation Risk
FCR = Financial Crisis Risk
β = Intercept
$\beta_1 - \beta_3$ = Parameter
it = Bank i at Time t
ε = Error Term

Variables Measurement

Table 1 ***Variables Definition and Measurement***

Variables	**Variables Measurement and Sources**	**A priori Expectation**
Return on Equity	Measured as profit after tax divided by the bank's total equity (Ekinci, 2016).	
Foreign Exchange Risk	Measured as foreign exchange income divided by the banks' domiciliary deposit (Chen *et al*, 2015).	-/+
Inflation Risk	Measured as change in the country overall inflation rate as at 31st December, of every year (Otieno, *et al*, 2016)	-
Financial Crisis Risk	Measured as dummy variable of 1 for the year in which the country experienced financial crisis, and 0 otherwise (Fang, *et al*, 2013, Zarrouk, 2014 and Yab *et al*, 2014).	-

Sources: Compiled by the Author from the various literature, 2021

4. Diagnostic Tests

Table 2 ***Diagnostic Tests***

Variables	**VIF**	**Tolerance Values**
FER	1.01	0.993
IFR	1.54	0.649
FCR	1.53	0.652
Hettest	7.57	0.005

Sources: STATA Output, 2021

The multicolinearity test shows variance inflation factor and tolerance value of less than 10 and 1, this implies absent of multicolinearity problem in the data of the study. The heteroskedasticity test of the study reveals a Chi square value of 7.57 with p-value of 0.005 which is significant at 1% level of significant. This signifies the existence of heteroskedasticity problem associated with the data of this study. To correct this heteroskedasticity problem in the data of the study, panel corrected standard error regression model is estimated and adopted for the study as the statistical tool of analysis of the data.

Descriptive Statistics

Table 3 presents the descriptive statistics of the variables of the study.

Table 3: ***Descriptive Statistics***

Variables	Min.	Max.	Mean	Std. Dev.
ROE	-1.943	1.806	0.092	0.502
FER	0.001	0.070	0.005	0.006
IFR	-0.072	0.890	0.005	0.042
FCR	0	1	0.313	0.465

Sources: STATA Output, 2021

From the table 3 it can be seen that financial performance of Nigerian listed banks has minimum and maximum values of return of equity of -1.943 and 1.806 respectively. This implies that within the period of the study some banks made loss while others generate profit. The average return on equity of the banks is 0.092 suggesting that banks performance over the period of study was neither particularly weak nor was it strong. Foreign exchange risk has minimum and maximum values of 0.001 and 0.070 with mean value of 0.005. Inflation risk has minimum and maximum values of -0.072 and 0.890 respectively. The average inflation risk is 0.005. Financial crisis risk has minimum and maximum values of 0 and 1 respectively. The mean value of financial crisis risk is 0.313 signifying the proportion of observations that occurred during financial crisis periods.

Correlation Matrix

Table 4: ***Correlation Matrix***

Variables	ROE	FER	IFR	FCR
ROE	1			
FER	0.057	1		
IFR	0.083	0.082	1	
FCR	-0.074	0.048	0.589	1

Sources: STATA Output, 2021

From Table 4 above, correlation coefficient of the relationship between return on equity and foreign exchange risk, return on equity and inflation risk is 0.057 and 0.083 respectively. This signifies positive association among the variables of the study. There is negative association between financial crisis risk and financial performance of banks in Nigeria. This can be confirmed from the correlation coefficient of -0.074. The independent variables of the study are positively associated among themselves; this can be confirmed from the correlation coefficient of 0.082, 0.048 and 0.589 respectively.

Regression Result

Table 5: ***Panel Corrected Standard Error Regression Result***

Variables	Coefficient	P-Values
Constant	0.122	0.023
FER	3.745	0.216
IFR	2.265**	0.026
FCR	-0.204**	0.034
R^2	0.232	
F-Statistics	8.49	0.006

*** p<0.01, ** p<0.05, * p<0.1, Denotes Significance at 1%, 5% & 10%

Sources: STATA Output, 2021

From Table 5 above, the coefficient of determination R square is 0.232, this implies that 23% of the total variation in financial performance of listed deposit money banks in Nigeria is caused by the combined impact of foreign exchange risk, inflation risk and financial crisis risk. While the remaining 77% of the variation in financial performance of Nigerian banks, is caused by other factors outside the model of this study. The F-Statistics of the study stood at 8.49 with p-value of 0.006 which is significant at 1% level of significant. This means the model of the study is well fitted with the variables of the study.

4.1 Foreign Exchange Risk and Financial Performance

The result from the regression analysis of this study on the relationship between foreign exchange risk and financial performance of banks shows a beta coefficient of 3.745 with p-value of 0.216 which is insignificant. This implies that there is positive insignificant relationship between foreign exchange risk and financial performance of banks in Nigeria. This signifies that foreign exchange risk is positively and insignificantly influencing the financial performance of listed banks in Nigeria. This result is in line with the a priori expectation of the researcher and is supported by the expected utility theory. This finding is in line with the findings of Josphat and Joseph (2019), but not in consistent with the result of Odhiambo and Mokori (2019) and Muiru *et al* (2018).

4.2 Inflation Risk and Financial Performance

The relationship between inflation risk and financial performance of banks in Nigeria shows a beta coefficient of 2.265 with p-value of 0.026 which is significant at 5% level of significant. This means there is positive significant relationship between inflation risk and financial performance of deposit money banks in Nigeria. This implies inflation risk is positively and significantly influencing financial performance of banks in Nigeria. This result may be attributable to the fact that, banks issued loans and advances to their customers and in paying back the loan and the interest attached to it during inflation period; the money lost its purchasing power as compared with the time when the loan was issued to the customers. This result is contrary to the a priori expectation of the researcher and is underpinned by the expected utility theory. This result is in consistent with the work of Otieno et al (2016), Maigua and Mouni (2016), but not in line with the work of Alfani and Rustandar (2013) and Ogore (2013).

4.3 Financial Crisis Risk and Financial Performance

The result from the regression model on the relationship between financial crisis risk and financial performance of Nigerian banks reveals a beta coefficient of -0.204 with p-value of 0.034 which is significant at 5% level of significant. This signifies that there is negative significant relationship between financial crisis risk and financial performance of banks in Nigeria. This implies that financial crisis risk is reducing the financial performance of deposit money banks in Nigeria. This result is in consistent with the a priori expectation of the researcher and is validated by expected utility theory. This result is in line with the result of Zarrouk (2014), but contradicted the result of Yap *et al* (2014) and Li *et al* (2020) who found positive significant relationship between financial crisis risk and banks' financial performance.

5. Conclusion and Recommendations

The study examined the impact of some systematic risks on financial performance of listed deposit money banks in Nigeria. Based on the findings, the study concluded that foreign

exchange risk and inflation risk significantly influence the financial performance of banks in Nigeria positively, while financial crisis risk negatively affects financial performance of banks in Nigeria. The study therefore recommends that the management of listed deposit money banks in Nigeria should do with cautious the business of buying and selling foreign currencies as well as other foreign currencies transactions. Also, management of Nigerian banks should be cautious in their business operation and put more efforts in managing their business risk that is unpredictable during inflation and financial crisis period in order to avoid operating at a loss.

References

Abiola, I & Olausi, A. S (2014). The impact of credit risk management on the commercial banks performance in Nigeria. *International Journal of Management and Sustainability, 3(5), 295-306.*

Ahmed, H, Azevedo, A & Guney, Y (2013). The effect of hedging on firm value and performance: Evidence from the non-financial UK firms. *1-31.*

Ahmed**,** L (2015). The effect of foreign exchange exposure on the financial performance of commercial banks in Kenya. *International Journal of Science and Research Publication, 5(11), 115-120.*

Alfani, L & Rustandar, I (2013). The impact of inflation to private banking profitability. *International Journal of Science and Research, 2(3), 469-473.*

Almanaseer, M (2014). The impact of the financial crisis on the Islamic banks profitability – Evidence from GCC. *International Journal of Financial Research, 5(3), 176-187.*

Alqudah, A. M. A & Malkawi, E (2014). Financial crisis, openness of the economy and the financial performance of Jordanian listed banks: Analytical study. *Arab Economic and Business Journal, 9, 61-66.*

Amin, M. A., Sunusi, N. Z., Kusairi, S & Abdallah, Z. M (2014). Inverse relationship of financial risk and performance in commercial banks in Tanzania. *Investment Management and Financial Innovations, 2(4), 279-291.*

Bernoulli**,** D (1944). Expected utility theory. Princeton: *Princeton University Press.*

Bizuayehu, M (2015). The impact of credit risk on financial performance of banks in Ethiopia. *Unpublished M.Sc. Thesis, Addis Ababa University, Ethiopia.*

Chaudhary, G. M & Abbas, Z (2017). Global financial crisis and its impact on efficiency and performance of commercial banks in Pakistan. *Journal of Business Studies Quarterly, 8(4), 15-29.*

Claessens, S & Horen, N. V (2014). The impact of the global financial crisis on banking globalization. *International Monetary Funds Working Papers, 1-50.*

Ekinci, A (2016). The effect of credit and market risk on bank performance: Evidence from Turkey. *International Journal of Economics and Financial Issues, 6(2), 427-434.*

Guo, Y., Li, P. & Aihua, L (2021). Trail risk contagion between international financial markets during COVID-19 pandemic. *International Review of Financial Analysis, 73(1), 126-135.*

Guruswamy, D & Hedo, A (2013). Impact of macroeconmic variables on financial performance of banks: A case study of selected private commercial banks in Ethiopia. *Anvesha Journal of Management, 7(4), 19-28.*

Hoseininassab, E., Yavari, K., Mehregan, N & Khoshsima, R (2013). Effect of risk parameters on banking system efficiency in Iran. *Iranian Economic Review, 17(1), 1-24.*

Isaac, L (2015). Assessing the impact of exchange rate risk on banks performance in Nigeria. *Journal of Economics and Sustainable Development, 6(6), 1-14.*

Josphat, L, K & Joseph, O (2019). Effect of financial risk on financial performance of microfinance institutions in Kenya. *International Academic Journal of Economics and Finance, 3(2), 357 - 369.*

Khan, W. A., Shahid, M., Bari, R., Anam, W., Shehzad, N & Siddique, S (2014). Impact of inflationary trends on banks' performance in Pakistan. *International Journal of Accounting and Financial Reporting, 4(1), 296-306.*

Kihara, M & Muturi, W (2016). The effect of foreign exchange risk management techniques on financial performance of commercial banks in Kenya. *International Journal of Social Sciences and Information Technology, 2(5), 543-559.*

Kweh, Q. L., Lu, W., Nourani, M & Ghazali, M. H (2018). Risk management and dynamic network performance: An illustration using dual banking system. *Applied Economics, 1-15*

Li, J., Jingyu, L., Zhu, X., Yao, Y & Casu, B (2020). Risk spillovers between fintech and traditional financial institutions: Evidence from the U.S. *International Review of Financial Analysis, 71(1), 101-125.*

Luostarinen**,** S (2011). Framework for evaluating foreign exchange exposure management practices of non-financial companies: A managerial approach. *Unpublished Master's Thesis, Aalto University.*

Maigua, C & Mouni, G (2016). Influence of interest rates determinants on the performance of commercial banks in Kenya. *International Journal of Academic Research in Accounting, Finance and Management Sciences, 6(2), 121-133.*

Mohamed, Z. O & Khalid, A. H (2014). The impact of international financial crisis on the efficiency of Oman banks' performance: An empirical study. *International Academic Research Journal of Economics and Finance, 3(1), 1-12.*

Moteti, S. R (2014). Relationship between financial risk management and financial performance of commercial banks in Kenya. *Unpublished Master Thesis, University of Nairobi, Kenya.*

Muhammed, T. D (2017). Effect of risk on financial performance of listed deposit money banks in Nigeria. *Unpublished PhD Thesis, Ahmadu Bello University, Zaria.*

Muiru, M., Kisaka, S. E & Kalui, F (2018). Effects of foreign exchange risk hedging techniques on financial perfoprmance of listed firms in Kenya. *International Journal of Accounting and Financial Reporting, 8(3), 156 - 173.*

Noor**,** J. A. M & Abdalla, A. I (2014). The impact of financial risks on the firms' performance. *European Journal of Business and Management, 6(5), 97-101.*

Nzoka, F. K (2015). The effect of assets quality on the financial performance of commercial banks in Kenya. *Master's Thesis, University of Nairobi Kenya.*

Odhiambo, O. N & Mokori, D (2019). Financial risk and financial performance of commercial banks in Kenya. *International Journal of Scientific and Education Research, 3(4), 1 - 15.*

Olajide**,** S. F (2013). Risk management and risk management failure: Lesson for business enterprises.

Olufemi, A. T (2011). Exchange rate risk exposure of Nigerian listed firms: An empirical examination. *International Business and Research, 4(2), 219-225.*

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

Otieno, A., Nyagol, D & Onditi, S (2016). Relationship between credit risk management and financial performance: Empirical evidence from microfinance banks in Kenya. *Research Journal of Finance and Accounting, 7(6), 115-142.*

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.*

Sangeetha, J (2012). Financial crisis and Omani commercial banks: A performance review. *European Journal of Business and Management, 4(8), 171-176.*

Tabash, M. I & Dhankar, R. S (2014). The impact of global financial crisis on the stability of Islamic banks: An empirical evidence. *Journal of Islamic Banking and Finance, 2(1), 367-388.*

Tsuma**,** M. W & Gichinga, L (2016). Factors influencing financial performance of commercial banks in Kenya – A case study of National Bank of Kenya coast region. *The International Journal of Business and Management, 4(4), 62-79.*

Wasiuzzaman, S., Wardah, H. S & Rahman, H. A (2021). Performance of gold-backed cryptocurrencies during the COVID-19 crisis. *Finance Research Letters, 38(1), 11-23.*

Yab, B. C., Mohamed, Z & Chong, K (2014). The effect of the financial crisis on the financial performance of Malaysian companies. *Asian Journal of Finance and Accounting, 6(1), 236-248.*

Zarrouk, H (2014). The impact of international financial crisis on the performance of Islamic banks in MEAN countries. *Contemporary Studies in Economic and Financial Analysis, 95, 45-69.*