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REVENUE DIVERSIFICATION, RISK AND PROFITABILITY OF BANKS: EVIDENCE FROM ZAMBIA

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ABSTRACT

The aim of this study was to evaluate the extent to which banks in Zambia were enhancing their performance as a result of undertaking revenue diversification activities. The study was quantitative in design. Panel data from 12 of the 18 banks in Zambia were analysed using several techniques such as the Herfindahl-Hirschman Index to measure income diversification, Z-Score to measure bank income volatility and the risk adjusted returns on assets to measure profitability. The study indicated that while some banks failed to enhance their profit performance through oninterest income diversification, others yielded better profit performance in some years, but not always. The overarching finding, however, was that non-interest income diversification improves profitability of banks in Zambia. With regard to bank risk, the study suggests that while some banks fail to minimize their income volatility through diversification into non-interest income, others reduce income volatility in some periods, but not always. The overall picture, however, is that larger banks use diversification to minimize their income volatility better that smaller banks. Considering the reduction in bank income diversification activities and the consequent decline in profitability of banks in Zambia, the Bank of Zambia should relax the regulatory regime for banks to encourage revenue diversification. On the other hand, given that bank income diversification is not a panacea for improving bank performance, banks should scrutinise whether their business models support non-bank activities as they make revenue diversification decisions.

KEYWORDS: Bank Risk, Diversification, Income Volatility, On-Interest Income, Profitability.

REFERENCES

Altman, E. I. (1968) 'Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy', *The Journal of Finance*, 23(4), pp. 589–609. doi: 10.2307/2978933.

ISSN: 2319-1422

Ammar, N. and Boughrara, A. (2019) 'The impact of revenue diversification on bank profitability and risk: evidence from MENA banking industry', *Macroeconomics and Finance in Emerging Market Economies*, 12(1), pp. 36–70. doi: 10.1080/17520843.2018.1535513.

Bank of Zambia (2020a) 'Income Statement for the period ended 31 March 2020'. Bank of Zambia. Available at: https://www.boz.zm/IncomeStatementfortheperiodended31March2020.xlsx (Accessed: 17 June 2020).

Bank of Zambia (2018) The BoZ Prohibition against Unwarranted Charges and Fees.

Boyd, J. H. and Graham, S. L. (1986) 'Risk, regulation, and bank holding company expansion into nonbanking', *Quarterly Review*, 10(Spr), pp. 2–17.

Brunnermeier, M., K., Dong, G. and Paliab, P. (2012) 'Banks' Non-Interest Income and Systemic Risk'. Princeton University. Available at: http://dc-20788-1635065795.us-east-1.elb.amazonaws.com/system/files/research/documents/brunnermeier_banks'_non-interest_income_and_systemic_risk.pdf (Accessed: 16 June 2020).

Carlson, M. (2004) 'Are Branch Banks Better Survivors? Evidence from the Depression Era', *Economic Inquiry*, 42(1), pp. 111–126. doi: 10.1093/ei/cbh048.

Cebenoyan, A. S. and Strahan, P. E. (2004a) 'Risk management, capital structure and lending at banks', *Journal of Banking & Finance*, 28(1), pp. 19–43. doi: Cebenoyan, A. S., & Strahan, P. E. (2004). Risk management, capital structure and lending at banks. Journal of Banking &https://doi.org/10.1016/S0378-4266(02)00391-6.

Cebenoyan, A. S. and Strahan, P. E. (2004b) 'Risk management, capital structure and lending at banks', *Journal of Banking & Finance*, 28(1), pp. 19–43. doi: 10.1016/S0378-4266(02)00391-6.

Chiorazzo, V., Milani, C. and Salvini, F. (2008) 'Income Diversification and Bank Performance: Evidence from Italian Banks', *Journal of Financial Services Research*, 33(3), pp. 181–203. doi: 10.1007/s10693-008-0029-4.

Delpachitra, S. and Lester, L. (2013) 'Non-Interest Income: Are Australian Banks Moving Away from their Traditional Businesses?', *Economic Papers: A journal of applied economics and policy*, 32(2), pp. 190–199. doi: 10.1111/1759-3441.12032.

DeYoung, R. and Rice, T. (2004) 'Noninterest Income and Financial Performance at U.S. Commercial Banks', *Financial Review*, 39(1), pp. 101–127. doi: 10.1111/j.0732-8516.2004.00069.x.

DeYoung, R. and Roland, K. P. (2001) 'Product Mix and Earnings Volatility at Commercial Banks: Evidence from a Degree of Leverage Model', *SSRN Electronic Journal*. doi: 10.2139/ssrn.251356.

Elsas, R., Hackethal, A. and Holzhäuser, M. (2010) 'The anatomy of bank diversification', *Journal of Banking & Finance*, 34, pp. 1274–1287.

Elton, E. J. et al. (2014) Modern portfolio theory and investment analysis. Ninth edition. Hoboken, NJ: Wiley.

Hamdi, H., Hakimi, A. and Zaghdoudi, K. (2017) 'Diversification, bank performance and risk: have Tunisian banks adopted the new business model?', *Financial Innovation*, 3(1), p. 22. doi: 10.1186/s40854-017-0069-6.

Johnson, R., D. and Meinster, D., R. (1974) 'Bank Holding Companies: Diversification Opportunities in Nonbank Activities', *Eastern Economic Journal*, pp. 316–323.

Karakaya, A. and Er, B. (2012) 'Noninterest (Nonprofit) Income and Financial Performance at Turkish Commercial and Participation Banks', *International Business Research*, 6(1), p. p106. doi: 10.5539/ibr.v6n1p106.

Klein, P. G. and Saidenberg, M. R. (1998) *Diversification, Organization, and Efficiency: Evidence from Bank Holding Companies*. 97/27. Philadelphia: Working PapeWharton School Center for Financial Institutions., p. 26.

Köhler, M. (2013) Does non-interest income make banks more risky? Retail- versus investment-oriented banks. Frankfurt: Deutsche Bundesbank, p. 44.

Lee, C.-C., Yang, S.-J. and Chang, C.-H. (2014) 'Non-interest income, profitability, and risk in banking industry: A cross-country analysis', *The North American Journal of Economics and Finance*, 27, pp. 48–67. doi: 10.1016/j.najef.2013.11.002.

Markowitz, H. (1952) 'Portfolio Selection', *The Journal of Finance*, 7(1), pp. 77–91. doi: 10.2307/2975974.

Maudos, J. (2017) 'Income structure, profitability and risk in the European banking sector: The impact of the crisis', *Research in International Business and Finance*, 39, pp. 85–101. doi: 10.1016/j.ribaf.2016.07.034.

Mercieca, S., Schaeck, K. and Wolfe, S. (2007) 'Small European banks: Benefits from diversification?', *Journal of Banking & Finance*, 31, p. 24.

Meslier, C., Tacneng, R. and Tarazi, A. (2013) 'Is Bank Income Diversification Beneficial? Evidence from an Emerging Economy', *Journal of International Financial Markets, Institutions and Money*, 31, pp. 97–126.

Mishi, S. and Khumalo, S. A. (2019) 'Bank stability in South Africa: what matters?', *Banks and Bank Systems*, 14(1), pp. 122–136. doi: 10.21511/bbs.14(1).2019.11.

Mnasri, K. and Abaoub, E. (2010) 'Diversification, bank risk taking and performance: evidence from Tunisian banks', *International Journal of Monetary Economics and Finance*, 3(1), pp. 13–32.

Nguyen, N. (2019) 'Revenue Diversification, Risk and Bank Performance of Vietnamese Commercial Banks', *Journal of Risk and Financial Management*, 12(3), p. 138. doi: 10.3390/jrfm12030138.

Nguyen, T. C., Vo, D. V. and Nguyen, V. C. (2015) 'Risk and Income Diversification in the Vietnamese Banking System', *Journal of Applied Finance & Banking*, 5(1), pp. 99–115.

Paltrinieri, A. *et al.* (2020) 'Risk-adjusted profitability and stability of Islamic and conventional banks: Does revenue diversification matter?', *Global Finance Journal*, p. 100517. doi: 10.1016/j.gfj.2020.100517.

Sanya, S. and Wolfe, S. (2011) 'Can Banks in Emerging Economies Benefit from Revenue Diversification?', *Journal of Financial Services Research*, 40(1–2), p. 79. doi: 10.1007/s10693-010-0098-z.

Saunders, M., Lewis, P. and Thornhill, A. (2016) *Research Methods for Business Students*. 7th edn. Essex: Pearson Education Limited.

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Senyo, D. B., Olivia, A.-T. and Musah, A. (2015) 'Income Diversification and Financial Stability of Banks in Ghana', *International Journal of Business and Social Science*, 6(6), p. 8.

Smith, R., Staikouras, C. and Wood, G. E. (2003) 'Non-Interest Income and Total Income Stability', *SSRN Electronic Journal*. doi: 10.2139/ssrn.530687.

Stiroh, K. J. (2006) 'A Portfolio View of Banking with Interest and Noninterest Activities', *Journal of Money, Credit, and Banking*, 38(5), pp. 1351–1361. doi: 10.1353/mcb.2006.0075.