Czech University of Life Sciences Prague Faculty of Economics and Management Department of Economics



Abstract of Diploma Thesis

Impact of Credit Risk Management on the Financial Performance of Commercial Banks in Nepal

Amrit Kumar JOSHI

© 2015 CULS Prague

Souhrn

ízení úv rových rizik je d ležitým ukazatelem finan ní výkonnosti. Hlavním cílem studie bylo prozkoumat hlavní ukazatele, které jsou relevantní pro ízení úv rových rizik a zjistit dopad na ziskovost komer ních bank v Nepálu. Jako výkonnostní ukazatel pro ziskovost byla použita rentabilita vlastního kapitálu (ROE), zatímco pom r nesplacených úv r (NPLR) a kapitálová p im enost (CAR) posloužily jako ukazatele pro ízení úv rového rizika. Jako kontrolní prom nná byla použita celková aktiva (TA). Z celkového po tu t iceti komer ních bank operujících na Nepálském trhu, byl pro ú ely diplomové práce vybrán vzorek sedmi bank. Pro regresní analýzu byla použita sekundární data z let 2009 – 2013. Za použití statistického softwaru STATA byla provedena ada statistických test , za ú elem zkoumání vztah mezi prom nnými. Z výsledk analýz vyplívá, že pom r nesplacených úv r (NPLR) má pom rn významný negativní vliv na návratnost vlastního kapitálu (ROE), zatímco kapitálová p im enost nijak významn ziskovost v Nepálu neovliv uje. Doporu ení pro banky navrhuje a formuluje strategie, které umož ují ízení parametr u nesplacených úv r (NPLR) za ú elem zlepšení výkonu. Strategie minimalizují úv rové riziko, ale mimo jiné také zlepšují ziskovost.

Klí ová slova: ízení úv rových rizik, ziskovost, kapitálová p im enost, rentabilita vlastního kapitálu, pom r nesplacených úv r , celková aktiva

1. Research Objectives

The main purpose of the research was to understand the impact of credit risk management on the financial performance of commercial banks in Nepal. Moreover, the specific objectives was to understand the relationship between Non-Performing Loan Ratio and Capital Adequacy Ratio on financial performance. After analyzing the relationship between the dependent and independent variables, this study also examined whether the relationship between the dependent and independent variables are positive or negative.

2. Importance of the Study

The stakeholders who are directly and indirectly dealing with credit risk can have advantage from this research.

• To regulators and policy makers

The research will provide the basis for regulatory policy framework to mitigate the financial system from financial crises and to better appreciate and quantify those credit risk exposures.

• To investors

This research will help investors to understand the factors that influence the return on their investments.

• To Commercial Banks

This research will clearly explain the relationship between the credit risk management indicators and their impacts which can help during the investment decisions making by the managers.

3. Hypothesis of the Research

The indicators which were used in this research, to understand the relationship between credit risk management and profitability of commercial banks in Nepal were Capital Adequacy Ratio, Non-Performing Loan Ratio, Total Assets(Control Variable) and Return on Equity. To process further, the research hypothesis has been set in the form of statement.

Ho= Capital Adequacy Ratio (CAR) significantly affect Return on Equity (ROE) of commercial banks in Nepal.

Ho= Non Performing Loan Ratio (NPLR) significantly affect Return on Equity (ROE) of commercial banks in Nepal.

4. Limitations

The major drawback of this research is the sample population because only seven commercial banks were used as sample among 30 commercial banks in Nepal. Beside this, the study does not include information of "B" and "C" Class financial institutions. Also, the data used in this research are from the year 2009 to 2013, which does not cover the time period of financial crisis.

5. Data Collection and Sample Population

Secondary data was used for the purpose of empirical analysis which was collected from the annual reports of the respective banks. The report "Banking and Financial Statistics" published by the Central Bank of Nepal in July, 2013 was also used for the data collection process.

The sample population was seven commercial banks namely; Everest Bank Ltd., Standard Chartered Bank Nepal Ltd., Citizens Bank International Ltd., Bank of Kathmandu Ltd., Nabil Bank Ltd., Nepal Investment Bank Ltd., and Nepal SBI Bank Ltd. Level of transparency, data availability and performance of the individual banks are the main reason of selecting those seven banks as a sample population. The time period used in this study was from the year 2009 to 2013 to discard the possible impact of 2008 world economic crisis in the results.

6. Methodology

Ratio analysis technique was used to find the required ratios for the analysis. Then after, regression analysis was conducted to examine the impact of credit risk management on the financial performance. In order to find the correlation between the variables ROE, NPLR, TA and CAR, *Pearson Correlation Coefficient* was computed between all used variables. After analyzing correlation, *Breusch Pagan test* was conducted to test for the heteroskedasticity in a linear regression model. Meanwhile, *Wooldridge test* was also conducted to test autocorrelation in a regression model. Furthermore, *Hausman test and Breusch Pagan LM test* was conducted to find the most appropriate model among POLS, Fixed Effect and Random Effect under panel data regression analysis. Based on Hausman and Breush Pagan LM tests, the best fit regression analysis for this study was Random Effect Model and the further output was generated using the selected regression model. The whole regression output was obtained using the statistical software STATA.

7. Empirical Findings and Analysis

The R-Squared of the regression analysis is 44.67 percent, which means the variables used in the model accounts for 44.67 percent change in dependent variable ROE. Moreover, the P-Value of CAR is 0.630. This is to say, there is no significant impact of CAR on ROE in Nepalese Banks. The null hypothesis is rejected. The results also revealed that P-Value of non-performing loan ratio (NPLR) with Return on Equity (ROE) is 0.006. It means that, NPLR have significant impact on ROE. Hence, the null hypothesis is accepted. Lastly, the P-Value of TA to ROE is 0.007 which explains there is also significant positive impact of TA on ROE.

8. Conclusion and Recommendations

The financial portfolios shows that, all the banks currently operating in Nepal are gaining reasonable profit and are in increasing trend. One of the major reason of increasing profit of Nepalese banks could be the significant decrease of NPL because this research has revealed significant relationship between NPLR with profitability in Nepalese banking. Moreover, the study also disclose the effect of credit risk management on banks profitability is cross sectional variant i.e. it is not similar across banks.

The recommendation of the study is that, bank managers of Nepal should be more focused on credit risk management, especially to control NPL to escape from the losses. They should also put more effort on managing the capital requirement to address the possible risks. Meanwhile, the banks should establish the credit guideline policies with clear terms and conditions for better outcome while approving loan.

References

Abhiman, Das & Saibal, Ghosh (2007). 'Determinants of credit risk in Indian state-owned banks: An empirical investigation', *Munich, Personal NepE Archive (MPRA)*. Available from: http://mpra-ub.unimerichen.de/17301>. [19 April, 2013].

BCBS. (2014). 'Supervisory framework for measuring and controlling large exposures', [online] Available From < http://www.bis.org/publ/bcbs283.pdf [April 2014].

Bessis Joel, (2009). 'Risk Management in Banking', Third Edition, pp. 340-420. ISBN: 978-0-470-01913-9, [Accessed on: July 2010].

Coyle, B. (2000), "Framework for Credit Risk Management", Chartered Institute of Bankers, United Kingdom.

Fight Andrew, (2004). 'Understanding International Bank Risk', British Library, Published Date: March 2004, ISBN 0-470-84768-9.

Khan M Y and Jain P K, (2007). 'Financial Management', Tata McGraw-Hill Publishing, New Delhi. ISBN (13 Digits): 978-0-07-065614-7 ISBN (10 Digits): 0-07-065614-2.

Lore Marc and Borodovsky Lev, (2000). 'Financial Risk Management', Revised Edition. Jordan Hall, Oxford. Published Date: July 2002, ISBN 0750641118.

Molyneux, P and Thornton, J. (1992). 'Determinants of European Bank Profitability: A Note', *Journal of Banking and Finance*, vol. 16, pp.1173-1178.

Nathan Vaidya K., (2013). 'Credit Risk Management for Indian Banks', SAGE Publications Asia-Pacific Pte. Ltd. ISBN: 978-81-321-1102-3(PB).

Poudel, R. P. S. (2012), 'The impact of credit risk management in financial performance of commercial banks in Nepal', *International Journal of Arts and Commerce*, vol. 5, pp. 9-13.

Rana Shobha Bdr. (2013), 'Risk management in Banks: Tough and challenging', Available from: < http://www.financialnepal.com/articles/print_it/223>, Kathmandu. [18 March 2015].

Scharfstein, David S, (2010). 'The Squam Lake Report: Fixing the Financial System'. Squam Lake Working Group Princeton, NJ: Princeton University Press, SBN 9780691148847 (acid-free paper), ISBN 0691148848 (acid-free paper).

Silwal S, (2011). 'Impact of Non-Performing Assets on the Performance of Commercial Banks in Nepal', Available from: < http://sushilsilwal.blogspot.cz/2011/11/impact-of-non-performing-assets-on.html [Accessed 2 November 2011].

Woodridge Jeffrey M. (2010). 'Econometric analysis of cross section and panel data', Second Edition. MIT Press. pp. 296-834, ISBN-13: 978-0-262-23258-6.