Financial Institutions and Services

An Analysis of the Factors Leading to Rising Credit Risk in the Zimbabwe Banking Sector

Maxwell Sandada[1], Agness Kanhukamwe[2]

Abstract: The study sought to analyse the factors that lead to rising credit risk in the Zimbabwean banking sector. The objective was to ascertain the impact of macroeconomic, industry and bank specific factors on rising credit risk in in Zimbabwe. The study aimed at contributing to credit risk management literature by providing evidence Sub Saharan context. Being anchored on the positivist quantitative research approach, a survey was carried out gather the data that were analysed using descriptive, correlation and regression analyses. The results revealed that the most significant factors leading to credit risk in the Zimbabwean banking sector were macroeconomic and bank specific factors. The industry factors did not show a significant influence on the rising credit risk. The research findings of this study will a valuable addition to the existing knowledge and provide a platform for further research on how the credit risk problems can be dealt with. While credit risk is known as one of the risks inherent to any banking institutions, the alarming levels of credit risk in the Zimbabwe banking sector has motivated this current study to critically analyse the factors that have led to the high credit risk levels.

Keywords: credit risk; dollarization; macroeconomic factors; industry factors; bank specific factors

JEL Classification: M10

1. Introduction

Since the dollarization of the economy in 2009, most businesses in Zimbabwe continue to face serious liquidity problems. For them to operate, businesses require funding from banking institutions. Similarly, individuals also required supplementary funding through bank loans for various personal reasons. The key challenge that banks face is that of having their customers pay back the borrowed funds in accordance with the terms and conditions of the loan agreement. The banks generally rely on the goodwill of their customers to service their loans which in turn aid the required circulation of funds in the economy. Many customers are failing to honour their loan obligations and this behaviour is resulting in increasing

[1] University of Zimbabwe, Graduate School of Management, Zimbabwe, Address: Harare 00263, Zimbabwe, Tel.: +263 4 307 757, Corresponding author: msandada@commerce.uz.ac.zw.
[2] University of Zimbabwe, Graduate School of Management, Zimbabwe, Address: Harare 00263, Zimbabwe, Tel.: +263 4 307 757, E-mail: Agness.Kanhukamwe@fbc.co.zw.

credit risk for banks. Increasing credit risk stifles the lending and borrowing cycle thereby bringing distress to both the banking institutions, the customers and overall to the economy as a whole, at large. Credit risk has threatened the survival and profitability of the banking sector. The problem has also contributed to decline in economic growth for Zimbabwe as businesses have faced difficulties in accessing affordable financing that is appropriately tenured to fund their operations.

Garcia-Herrero (2006) and Ramlall (2009) identify poor asset quality, as indicated by the high levels of non-performing loans to be responsible for low profitability for banking institutions. The negative effect of non-performing loans on bank profitability has been collaborated by Sarpong, Winful and Ntiamoah, (2011) in their research on Ghana. Bashir (2000) also confirmed that high loans to asset ratios lead to higher profitability provided the quality of the loan portfolio is good, stressing the importance of a good quality credit portfolio.

The problem therefore is that of rising credit risk in Zimbabwe banking sector and the negative effects being suffered as a result of the credit risk. Credit risk has threatened the survival and profitability of the banking sector. The rising credit risk has contributed to decline in economic growth for Zimbabwe as businesses have faced difficulties in accessing affordable financing that is appropriately tenured to fund their operations.

While credit risk is known as one of the risks inherent to any banking institutions, the alarming levels of credit risk in the Zimbabwe banking sector has motivated this current study to critically analyse the factors that have led to the high credit risk levels.

Most of the studies on factors explaining credit risk in banks have been carried out in the advanced economies. This include, Aver (2008), on his study of credit risk factor on Slovenian banking system; Das and Ghosh (2007), in their study on determinants of credit risk in state-owned banks in India. These studies have been conducted under unique regulatory and economic environments where the level of market efficiency is advanced compared to those of emerging and developing countries like Zimbabwe. This study therefore allows focus on the Zimbabwe banking sector that is currently facing high credit risk. The economic cycle that Zimbabwe has gone through has exposed it to issues that may not be common in other countries.

The research findings of this study will a valuable addition to the existing knowledge and provide a platform for further research on how the credit risk problems can be dealt with. An understanding of the effects of the external and internal factors on credit risk in the Zimbabwean banking system is important to the senior management and investors of financial institutions in Zimbabwe.

2. Literature Review

2.1. Agency Theory

Agency theory sometimes referred to as principal-agent theory explains the conflict of interest between the shareholders who are referred to as the principals and the managers who are referred to as the agents (Jensen and Mecling, 1976). The theory defines agency relationship as a contract where the principal engages the agent to perform some duties on their behalf. The agency theory mirrors the issue of poor quality insider lending that have been the major reason for demise of some of the financial institutions in the Zimbabwe banking sector. The liquidity preference theory and its emphasis on compensation for holding less liquid assets, in the form of interest rates, and how the interest rates increase where high risk is perceived reflects lending patterns and practices in the Zimbabwe banking sector.

2.2. Factors affecting credit risk

Literature recognises that factors influencing credit risk can be distinguished into external factors and internal factors. The external factors relate to the macroeconomic factors while internal factors are the microeconomic factors. Empirical literature identifies macroeconomic, bank-specific and industry-specific variables as factors affecting credit risk. Garr (2013) establish in a study, that bank ownership (whether locally-owned or foreign) and management efficiency as the bank specific factors, while industry specific factors are financial sector development and competition. The macroeconomic variables considered are interest rates, inflation, government borrowing and the gross domestic product per capita.

2.2.1. Macro Economic Factors

Macroeconomics is a branch of economics that studies the economy of a nation from a broad point of view through the application of macroeconomic factors. Macroeconomic factors are those factors that have impact at a national level and include variables such as inflation rate, unemployment levels, interest rates, rate of consumer consumption, gross domestic product, national income and price levels. Literature submits that macroeconomic factors influence the level of credit risk in the banking sector.

Gross domestic product growth rate is considered a key macro determinant of banks performance. During economic booms, income levels are high and portfolio at risk is minimal. During recessions, income levels are constrained and borrowers face challenges in settling their credit obligations. Vazquez, Tabak and Sauto, (2012) contends that there is an inverse relationship between gross domestic product and non-performing loans. On the other hand, research shows a positive

relationship of inflation, unemployment and interest rate on non-performing loans. High tendencies of credit risk are said to go along with high inflation, high unemployment and high interest rates. These variables limit the borrower's ability to borrow and at the same time increase the cost of borrowing (Derbali, 2011).

Aver (2008) conducted an empirical analysis of credit risk factors affecting Slovenian banking system. The research results established that certain macro-economic factors exert notable influence on credit risk. Results of the study confirm that unemployment rate, interest rates and stock market index were critical in influencing credit risk in Slovenian banking system. No sufficient linkage of inflation rate, gross domestic product growth rate, exchange rate or growth of import-export trade was noted to affect credit risk.

Empirical studies suggest that for every banks crisis, there are some macro-economic variables relating bank crisis to the economic performance. A banking crisis is a financial crisis that affects banking activity. Banking crises include bank runs, which affect single banks; banking panics, which affect many banks; and systemic banking crises, in which a country experiences a large number of defaults and financial institutions and corporations face great difficulties repaying contracts.

Ramlall (2009) considers interest rate, cyclical output, the level of economic development and stock market capitalisation as determinants of credit risk.

2.2.2 Micro Economic Factors

The main source of micro economic factors that leads to credit risk include limited institutional capacity, inappropriate credit policies, volatile interest rates, poor management, inappropriate laws, low capital and liquidity levels, direct lending, massive licensing of banks, poor loan underwriting, laxity in credit assessment, poor lending practices, government interference and inadequate supervision by the central bank (Kithinji, 2010).

Musyoki (2011) investigates the impact of credit risk management on financial performance of banks in Kenya between years 2000 to 2006. The study finds that default rate (credit risk) was a major predictor of banks success carrying a strong inverse relationship to banks financial performance. The study highlights that micro economic factors play a role in level of credit risk.

Literature also spells out principal-agent relationship as a primary factor influencing the risk appetite of a financial institution. Moral hazard, ownership structure, regulatory framework and governance mechanism form the theoretical micro determinants of credit risk.

Das and Ghosh (2007) analysed the determinants of credit risk in Indian state-owned banks. The paper sought to analyse the loans problems of state owned banks in India for the period 1995-2005. The study concluded that, although credit risk

was influenced by macro-economic variables, the quality of loans was significantly determined by the single bank individual variables. This was concluded after realizing that despite controlling the macroeconomic factors, credit risk was still highly affected by micro factors. Evidence from the study indicates that excessive growth of loan book outstrips banks capacity to monitor the portfolio. Also bigger banks proved to have problems with managing loans than smaller banks. The study concluded that excessive loan growth and institution expansion capacity need to grow along with impeccable managerial skill relevant to strategise and manage institutions risk appetite to avert unforeseen risk.

2.2.3. Bank Specific Factors

A study by Garr (2013) identifies the following as some of the bank-specific factors that impact credit risk: bank ownership structure, operating expenses, efficiency of management, deposit composition and quality, asset quality, capital and size and bank reserve requirement.

Bank ownership structure is considered a factor that can influence credit risk. It is hypothesised that foreign owned banks perform better on credit risk matrix than local banks. Demirguc-Kunt and Huizinga (1998), find in their research study that foreign banks have higher margins and profits compared to domestic banks in developing countries, while the opposite holds in developed countries. Garcia-Herrero (2006), also observes that foreign banks generally count with a better production technology, which allows them to be more efficient and better in credit risk management, thereby, more profitable. Bashir (2000) also maintains that foreign-owned banks are more profitable than their domestic counterparts among Islamic banks. Dietrich and Wanzenried (2009) however contradict the above and indicate that foreign banks in Switzerland are less profitable than Swiss owned banks.

In a study by Mwaurah (2013), the focus of literature review zeroed to managerial efficiency as a microeconomic determinant of credit risk. Mwaurah (2013) pointed that commercial banks crisis arises mostly due to inadequate management capabilities and that competency and management responsibility play a crucial role in deciding the risk appetite of a financial institution. The study further assert that poor credit management practices lead to bad lending which give rise to a bloated portfolio of unpaid loans.

The Central Bank of Kenya Risk Management Guideline (2013), corroborate that sound bank management need to establish an elaborate system to monitor quality of loans on a day to day basis. It further states that credit policy on lending should explicitly outline procedures on credit appraisal, approval, monitoring and recovery and that the quality of management in a financial institution bears an inverse relationship to credit risk with inadequate governance structures being blamed for increased risk on loan quality. Al-Smadi and Ahmad (2009), conclude that at the

micro level, precautionary credit policies adopted by the banks during periods of high demand on loans lead to reduce the banks' credit risk exposure. Also according to Ramlall (2009) the higher the efficiency level of the bank, the higher its profit level, hence a positive relationship is posited between efficiency and profitability of banks. Maudos and de Guevara (2004) maintain that a good management means picking up high quality assets (low risk and high return assets) and low cost liabilities.

During economic expansion, banks are often engaged in fierce competition for market share in loans, resulting in rapid credit growth. It is purported that the easy way to garner market share could be to lend to borrowers of inferior credit quality. Kithinji, (2010) analyses this phenomenon in a study to investigate the relationship between credit risk management and profitability of commercial banks in Kenya. The study sought to find out how banks profitability was affected by the non-performing loans and growth of credit portfolio in a study conducted between 2004- 2008. The study reveals a decline in credit level and improvement in the quality of loans. This improvement was attributed to the compliance by commercial banks to Basle II provisions. However, the regression analysis did not reveal any relationship between profits, credit level and non-performing loans suggesting that other variables apart from credit level and non-performing loans affects profits.

Other studies have found credit growth rate as a significant variable explaining credit risk. Castro, (2013), analyses the link between the macroeconomic developments and the banking credit risk in a particular group of countries – Greece, Ireland, Portugal, Spain and Italy (GIPSI), using dynamic panel data approaches to these five countries over the period1997-2011 and finds that there is a significant relationship between credit growth and credit risk. The study purports that when credit expands or grows faster, the risk of more defaults in the future may increase because that expansion might be achieved at the cost of more risky loans, the effect of which may not be felt immediately. This confirms the previous studies of Igan and Pinheiro, (2011), Mendoza and Terrones, (2008) and Tamirisa and Igan, (2007) who found that a positive relationship between credit growth and credit risk.

On the contrary studies conducted by Dash and Ghosh (2007) shows a negative relationship between credit growth rate and non- performing loans in both the contempreous and lagged values in their study of determinants of credit risk in Indian State-owned Banks..

Salas and Saurina (2002) find a negative relation between bank size and non-performing loans and argue that bigger size allows for more diversification opportunities and spreading of risk. Louzis, Vouldis and Metaxas, (2011) are howver of a different opinion and argue that the moral hazard of too-big-to-fail

banks represents another channel relating bank-specific features with non-performing loans. Stern and Feldman, (2004) agrees to this and state that a policy concern is that too-big-to-fail banks may resort to excessive risk taking since market discipline is not imposed by its creditors as they expect government protection in case of a bank's failure. Consequently, large banks may increase their leverage too much and extend loans to lower quality borrowers precipitating credit risk (Louzis et al, 2011).

Garr (2013) considered two industry-specific factors in the study of determinants of credit risk in the banking industry of Ghana. These two industry specific factors are competition and the financial sector development. Other banking industry specific factors that are considered to influence credit risk are the existence of a credit reference bureau and the effectiveness of the supervision and monitoring role of the central banks. The Central banks are the regulators of banking institutions in an economy.

Aginer, Demirguc-Kunt and Zhu, (2012)and Rose and Hudgins (2008) both agree that competition is good for the banking sector as greater competition encourages banks to take more diversified risks, making the banking system less fragile to shocks. They both argue that competition tends to squeeze the difference between average asset yields and average liability costs. Jimenez and Saurina (2006) also contend that strong competition among banks or between banks and other financial intermediaries erodes margins as both loan and deposit interest rates get closer to the interbank rate and this has an impact of reducing credit risk through affordable lending rates.

Two major indicators are used to represent financial sector development in literature and there are the ratio of M2+ to gross domestic product and ratio of bank total asset to gross domestic product. M2+ is money in the form of saving deposits, time deposit which are assets that are near cash. These ratios, according to Tennant and Folawewo (2009) reflect the overall level of development of the banking sector and the level of competition in well-developed banking sectors. An increase in any of these ratios is an indication of improvement in the development of the financial sector and financial sector development is submitted to have an inverse relationship with credit risk. According to Ngugi (2001), inefficiency in the intermediation process is a characteristic of a supressed financial system. This is because in a control policy regime, selective credit policies involve substantial administrative costs, and interest rates with set ceilings fail to reflect the true cost of capital.

Literature suggests that credit information sharing has positive effect on credit risk. In their study, Jappelli and Pagano (2000) use survey data in cross-country analysis of Europe and show that credit information sharing leads to a reduction in credit risk.

Auronen, (2003) suggest that the theory of asymmetric information indicate that it may be difficult to distinguish good from bad borrowers which may result in adverse selection and moral hazards problems. The theory explains that in the market, the party that possesses more information on a specific item to be transacted (in this case the borrower) is in a position to negotiate optimal terms for the transaction than the other party (in this case, the lender) (Auronen, 2003) and Richard (2011). The party that knows less about the same specific item to be transacted is therefore in a position of making either right or wrong decision concerning the transaction. Adverse selection and moral hazards is purported to have led to significant accumulation of non-performing loans in banks (Bofondi and Gobbi, 2003).

Information sharing is largely enhanced by the presence of a credit reference bureau in a country. The Kenyan Banking (Credit Reference Bureau) Regulations, 2008 states that the main role of Credit Reference Bureau is to provide credit histories to financial institutions as to be able to make lending decisions in order to prevent credit risks. Credit bureaus assist in making credit accessible to more people, and enable lenders and businesses reduce financial risks. They add that credit bureaus allow borrowers to take their credit histories from one financial institution to another, thereby making lending markets more competitive and in the end, mitigate credit risks and make credit more affordable.

Jappelli and Pagano, (1999), further assert that sharing of information between financial institutions in respect of customer borrowing behaviour has a positive economic impact. The introduction of Credit Reference Bureaus in financial landscape is an effort to encourage sharing of information by institutions so as to reduce the incidences of serial defaults by bank customers as well as minimize the incidences of non-performing loans. Credit information sharing will allow banks to distinguish between good and bad borrowers. Information sharing will also present customers with the opportunity to negotiate a for good credit terms when one has a good credit record. This means that the introduction of Credit Reference Bureaus will inculcate a culture of observing credit terms thereby reducing the level of non-performing loans. This is indicative that sharing of information between financial institutions through Credit Reference Bureau is very essential in the management of credit risks (Jappelli and Pagano, 1999)

Petersen and Raghuram, (1994), also agree on the need for credit information sharing and state that the unavailability to banks of data needed to screen credit applications and to monitor borrowers has an impact of increasing credit risk in the banking sector. They claim that when a bank does not have such information, it faces “adverse selection” or “moral hazard” problems in its lending activity. Adverse selection arises when some information about the borrowers’ characteristics remain hidden to the lender (hidden information), and can lead to an inefficient allocation of credit. Moral hazard arises from the lender’s inability to

observe borrower's actions that affect the probability of repayment. This creates the danger of opportunistic behaviour or moral hazard by the borrower and informational disadvantage by the bank leading to inefficient allocation of credit and then high credit risk.

Central Banks are responsible for supervising the banking institution of their countries. They provide regulatory frameworks which govern operations of banking institutions. In Zimbabwe this is done through the Banking Act. There is not yet a lot of literature on how supervisory role of central banks impacts credit risk in a banking sector. However an analysis of the global financial crisis has pointed that inadequate regulation contributed to the crisis. Merrouche and Nier (2010) in the IMF Working Paper on "What caused the Global financial Crisis-Evidence on the drivers of financial imbalances 1999-2007" highlights that supervision and regulation of the financial system is a key means to prevent crises. Merrouche and Nier (2010) further mention that supervision and regulation of financial system assist in controlling moral hazard and discouraging excessive risk-taking on the part of financial institutions. They attributed the inadequate supervision and regulation as prime candidates to have caused the global financial crisis.

3. Methodology

The positivist, quantitative research paradigm was chosen because the study sought to establish the relationship between credit risk performance and bank specific, industry specific and macro-economic factors (Saunders et al., 2009).

The population for this study were the banking institutions in the Zimbabwe banking sector (13 commercial banks, 3 building societies and 1savings bank). The sample frame was register of licensed banks from Reserve Bank of Zimbabwe. The units of analysis were 130 lending managers, Heads of Credit Division, credit analysts, senior and junior bank managers and managing directors.

3.1 Data Analysis

The Statistical Package for Social Sciences (SPSS) Windows Version 21 was used to analyze data. The data were first examined using descriptive statistics to identify the frequency distributions. Correlation analysis was used to establish the association among the factors and then regression analysis was used to identify the causal relationship between the variables under study effect of the factors.

4. Results

The response rate from a sample of 130 targeted respondents was satisfactory. Out of the 130 questionnaires that were distributed, 91 questionnaires were successfully completed and returned for analysis. This represents a response rate of 70% which is adequate enough to warrant validity of the study finding

4.1. Reliability and Validity

A reliability test was conducted to find establish the internal consistency of the scale. SPSS tests were carried out to calculate Cronbach's Alpha values in order to estimate reliability of each of the research variables. As advised by Nunally (1978), all the variables yielded an alpha value greater than 0.7 with macroeconomic factors (0.817), bank specific factors (0,825), industry factors (0.866), and credit risk (0.850) implying that all the scales in the study are reliable and valid to the instrument. The table below shows the overall Cronbach's alpha coefficients for the variables that were used in the study.

Table 1. Reliability Statistics of the variables

Variables	Number of Items	Cronbach's Alpha value
Macro-economic factors	9	0.817
Bank Specific factors	8	0.825
Industry factors	5	0.866
Credit risk	13	0.850
Overall Cronbach's Alpha	**35**	**0.774**

The validity of the instrument was further checked using content analysis. Face validity was mostly used as the use of subject experts was conducted to come up with a valid instrument (Grays, 2009). A pilot study was done prior to the distribution of the questionnaires with selected sample of respondents with experience in credit risk issues to check for adequacy and validity of the instrument. The results of the pilot study were then used to validate the instrument while making adjustments to other variables until the acceptable reliability was achieved.

4.2 Correlation Analysis

A non-parametric rank-based statistical test for unevenly distributed data caled the Spearman Rank correlation "rho" was conducted to determine how the variables were correlating with each other (Zammit, 2010). The table below shows the results of the correlation coeffeciets of the variables that were under study.

Table 2. Correlation analysis

Factors	**1**	**2**	**3**	**4**
Macro-economic factors**1**	1			
Industry factors **2**	.490**	1		
Bank specific factors **3**	.479**	.628**	1	
Credit risk **4**	.881**	.601**	.650**	1

**. Correlation is significant at the 0.01 level (2-tailed).

The correlation takes a range from -1.0 for a perfect negative relationship to +1.0 for a positive relationship (Kanbur, 2009). According to the results in table 4.8 it was observed that there is a statistiaclly significant and strong positive relationship between the macro economic factors and credit risk (r= 0.881**, p<0.01), between the bank specific factors and credit risk (r=0.650**; p<0.01), between the industry factors and credit risk (r=0.601**; p<0.01). The coefficients between the independent variables range from 0.479 to 0.628 showing that there was no problem on collinearity.

4.3 Regression Analysis

Additional tests to determine the causal-effect relationship was carried out using regression analysis. Table 3 below depicts the regression model.

Table 3. Regression Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.450	.165		2.737	.008
	MACRO_E	.748	.041	.819	18.344	.000
	BANK_SPEC	.161	.035	.202	4.554	.000
	INDUSTRY	.030	.030	.046	.999	.321

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.450	.165		2.737	.008
	MACRO_E	.748	.041	.819	18.344	.000
	BANK_SPEC	.161	.035	.202	4.554	.000
	INDUSTRY	.030	.030	.046	.999	.321

a. Dependent Variable: CREDIT_RISK
b. R-squared = 0.862; Adjusted R-squared= 0.857
c. F=180.95, p<0.01

Results shown in table 3 above showed that 86.2% of credit risk in the Zimbabwe banking sector is influenced by the independent variables of macroeconomic factors, bank specific factors and industry factors. The model was consdired a fit or significant in predicting credit risk as evidenced by value F (180.95) and p-value of 0.0000. The beta coefficients revealed that the macro economic factors have more power and high significance in explaining the contribution of the factors to credit risk in the Zimbabwe banking sector (β= 0.891 ; p<0.01). The bank specific factors also have power in explaining the contribution of the factors to credit risk in the Zimbabwe banking sector (β= 0.202 ; p<0.01). Industry factors on the other hand had low expanatory power of credit risk in the Zimbabwe banking sector with β= 0.046 and low significance level.

Confirming similar results, Aver (2008) established that certain macro-economic factors exert notable influence on credit risk. Results of the study confirm that unemployment rate, interest rates and stock market index were critical in influencing credit risk in Slovenian banking system. On the internal factors Kithinji, (2010) pointed out that the main source of micro economic factors that leads to credit risk include limited institutional capacity, inappropriate credit policies, volatile interest rates and poor management. According to the survey which was conducted by Das and Ghosh (2007) it was interesting to note that in his study of the Indian banks he concluded that, although credit risk was influenced by macro-economic variables, the quality of loans was significantly determined by the single bank individual variables. This was concluded after realizing that despite controlling the macroeconomic factors, credit risk was still highly affected by micro factors.

This study therefore concludes that macro economic and bank specific factors have a significant effect on credit risk in Zimbabwe banking sector while the bank indusrty factors exert less influence on credit risk in the Zimbabwe banking sector.

5. Managerial Recommendations

The study has shown that the external factors/ macroeconomic variables exert significance influence on credit risk in the Zimbabwe banking sector. In making efforts to manage credit risk in the banking sector, it must be observed that the banking industry is part of the larger economy and as such, issues of credit risk cannot be tackled in isolation of the greater issues of the economy. The interrelatedness of the economy performance and credit risk points that it is important for the policy makers to address the fundamentals of the economy so as to create an environment that is conducive for business prosperity.

The significance of bank specific factors also highlights the need for banking institution to take staff training on the various aspects of banking operations seriously. Due to the difficulties in the operating environment, institutions have been forced to implement drastic cost cutting measures and in this light, there has been a general tendency to cut on staff cost which include staff training. There is need for a mind-set shift in considering training as a cost. Instead, training must be considered as an investment in human capital that is essential in contributing to the success of the organisation. It is therefore recommended that focused training be done for bank employees to enhance their management capabilities.

6. Limitations of the Study and Avenues for Future Research

The study population was limited to the Harare metropolitan province only. Respondents from other cities were not included in the sample. While it is acknowledged that Harare in the business hub for the Zimbabwe economy, there is a possibility there could be salient features in other provinces that could have enriched the date of this study. This study was restricted to banking institutions only. Credit risk is a phenomenon that affects all credit granting organisations and this includes non-banking financial institutions such as retails chain stores who sell their products of credit, manufacturing companies among others. It is this researcher's view that the study should be extended to these other credit granting organisations. In addition, the study was based on a snap survey therefore it is recommended that a longitudinal study be undertaken to ascertain if the pattern remains the same.

7. References

Aginer, D., Demirguc-Kunt, A. & Zhu, M. (2012). How Does Banking Competition Affect Systematic Stability?The World Bank, Development Reserach Group, Finance and Private Sector Development. *Research Working Paper 5981*.

Al-Smadi, M.O. & Ahmad, N.H. (2009). Factors affecting bank's credit risk: Evidence form Jordan in Indian State Owned Banks. *College of Business, University Utara Malaysia*.

Auronen, L. (2003). Assymeteric Information: Theory and Applications. *Seminar of Strategy and International Business, Helsinki University of Technology*.

Aver, B. (2008). An empirical analysisof Credit risk factors of the Slovenian Banking Sector. *Managing Global Transition*, vol. 6, no. 3, pp. 317-334.

Bofondi, M. and Gobbi, G. (2003). Bad Loans and Entry in Local Credit Markets. *Bank of Italy Research Department, Rome*.

Das, A. and Ghosh, S. (2007). Determinants of Credit Risk in Indian State-owned Banks: An Empirical Investigation. *Economic Issues*, vol. 12, no. 2, pp. 48-66.

Derbali, A. (2011). Determinants of Banking Profitabilty, Before and During the Financial Xrisis of 2007: The Vase of Tunisian Banks. *Intredisciplinary Journal of Contemporary Reseach in Business*, vol. 3, pp. 1256-1269.

Dermirguc-Kunt, A. & Huizinga, H. (1998). Determinants of Commercial Bank Interest Marginns and Profitability: Some Internantional Evidence. *Policy Research Working Paper No. 1900*.

Dietrich, A. & Wanzenried, G. (2009). What Determines the Profitability of Commercial Banks? *New Evidence from Swaziland.*

Garcia-Herrero, A. (2006). What Explains Low Profitability of Chinese Banks?. *Working Paper No. 30, The American University of Paris.*

Garr, D.K. (2013). Determinants of Credit Risk in t the Banking Industry of Ghana. *Developing Country Studies*, vol. 3, no. 11.

Igan, D. & Pinheiro, M. (2011). Credit Growth and Bank Soundness. *IMF Working Papers WP/11/278*, pp. 4-8.

Jappelli, T. & Pagano, M. (1999). Information Sharing Lendig and Defaults. *Journal of Finance*, vol. 43, no. 5, pp. 1693-1718.

Jappelli, T. & Pagano, M. (2000). Information Sharing in Credit Markets: The European Experience. *University of Salerno: CSEF Working Paper No. 35*.

Jensen, M. and Meckling, W. (1976). Theory of the Firm: Management Behaviour, Agency Cost and Ownership Structure. *Journal of Financial Economics*, vol. 3, no. 4, pp. 305-360.

Jimenez, G. & Saurina, J. (2006). Credit Cycles, Credit Risk and Prudential Regulation. *International Journal of Central Banking*, vol. 2, pp. 65-98.

Kithinji, A.M. (2010). *Credit Risk Management and Profitability of Commercial Banks in Kenya*.

Louzis, D.P., Vouldis, A.T. and Metaxas, V.L. (2010). Macroeconomic and bank-specific determinants of non-performing loans in Greece: a comparative study of mortgage, business and consumer loan portfolios. *Bank of Greece*.

Maudos, J. & de Guevara, J.F. (2004). Factors Explaining the Interest NMargin in Banking Sectors of European Union. *Journal of Banking and Finance*, pp. 2259-2281.

Mendoza, E.G. & Terrones, M. (2008). An Anatomy of Credit Booms: Evidence from Macro Appregates and Micro Data. *IMF Working Paper No. 08/226*.

Merrouche, O. & Nier, E. (2010). What Caused the Global Financial Crisis- Evidence on the drivers of Financial Imbalance 1999-2000. *IMF Working Paper*.

Musyoki, D. (2011). The Imapct of Credit Risk Management on the Financial Performance of Banks in Kenya. *Journal of Business and Public Management*, vol. 2, no. 2, pp. 72-80.

Mwaura, I.G. (2013). The Determinants of Credit Risk in Commercial Banks in Kenya. *University of Nairobi*.

Ngugi, R.W. (2001). An Empirical Analyis of Interest Rate Spread in Kenya. *African Economic Consortium, Research Paper 106*.

Petersen, M.A. and Raghuram, G.R. (1994). The Benefits of Lending Relationships: Evidence from Small Business Data. *Journal of Finance*, vol. 49, p. 3.

Ramlall, I. (2009). Bank Specific, Industry Specific and Macroeconomic Determinants of Profitability in Taiwanese Banking System: Under Panel Data Estimation. *International Reserach Journal of Finance and Economics*.

Richard , E. (2011). Factors thatCause Non-Performing Loans in Commercial Banks in Tanzania and Strategies to Resolve Them. *Journal of Management Policy and Practise*, vol. 12, no. 7.

Saunders, A. & Cornett, M.M. (2008). Financial Institutions Management. *Financial Institutions Management*, 6th edition, McGraw-Hill.

Saunders, M., Lewis, P. & Thornhill, A. (2009). *Reserach Methods for Business Students*, 5th Edition. Harlow: FT Prentice Hall.

Stern, G. and Feldman, R. (2004) 'Too Big to Fail: The Hazards of Banks Bailouts ', *The Brookings Institution, Washington DC*.

Tamirisa, N.T. & Igan, D.O. (2007). Credit Growth and Bank Soundness in Emerging Europe. *IMF Working Paper 2007*, pp. 2-7.

Tamirisa, N.T. & Igan, D.O. (2007). Credit Growth and Bank Soundness in Emerging Europe. *IMF Working Paper 2007*, pp. 2-7.

Tennant, D. & Folawewo, A. (2009). Macroeconomic and Market Determinants of Banking Sector Interest Rate Spreads. Empirical Evidence from Low and Middle Income Coutries. *Applied Financial Economics*, vol. 19, no. 6, pp. 489-507.

The Impact of Internal Factors on Bank Profitability in Kosovo

Leonora Haliti Rudhani[1], Skender Ahmeti[2], Taulant Rudhani[3]

Abstract: Commercial banks play an important role in the economic development and financial stability; therefore this study investigated the influence of internal factors in the profitability of commercial banks in Kosovo. Based on the literature review, a crucial internal factor on the profitability of banks in Kosovo was deemed: the repayment of assets (ROA) as a measure of profitability influenced by other independent variables, such as: bank size, capital adequacy, loan and liquidity risk. The aim of this study is to investigate the empirical relation between internal factors determining bank profitability and profitability as a dependent variable. The empirical analysis is based on the data of commercial banks in Kosovo published in the period 2010-2014. The data were analysed with SPSS 21 version, and the hypotheses were tested by means of correlation and linear regression. The findings of the study proved that commercial banks in Kosovo could enlarge their profitability by increasing the level of bank loaning and other investments, except for managing risk and liquidity properly.

Key words: Bank profitability; bank size; liquidity; bank loans;

JEL Classification: G21; G24

1. Introduction

In the framework of financial institutions commercial banks play a very important role; they have a great impact on economic development and financial stability. During 2007 - 2008 there was a rapid development of the banking sector in Kosovo, which contributed to the establishment a higher level of competition (Luboteni, 2013). A total of ten commercial banks operate in Kosovo's market, eight of which are foreign, while two are local (BQK, 2014). Kosovo's banking system has undergone major changes since its establishment until today, changes

[1] Teaching Assistant, PhD Candidate, University of Applied Sciences, Republic of Kosovo, Address: Besim Rexhepi, p.n.; 70000 Ferizaj, Republic of Kosovo, Tel.: 381(0) 290 310 010/ 310 013, Corresponding author: leonora_rudhani@hotmail.com.

[2] Associate Professor, PhD, Dean, Faculty of Economics, University of Prishtina, Republic of Kosovo, Address: "Mother Teresa" Str., 10 000 Prishtinë, Republic of Kosovo, Tel.: +38138244183/244186, Fax: +38138244187, E-mail: skender.ahmeti@yahoo.com.

[3] Student, Faculty of Economics, University of Prishtina, Republic of Kosovo, Address: "Mother Teresa" Str., 10 000 Prishtinë, Republic of Kosovo, Tel.: +38138244183/244186, Fax: +38138244187, E-mail: taulantt.i@hotmail.com.

that were affected by the introduction of new banks in the market, changes in technology and increased competition (Ahmeti, Hoti & Alshiqi, 2014, p. 2). Relying on the role of the banking sector in the country's economic development and that Kosovo is a country with an underdeveloped economy, it was decided that this paper would examine the impact of internal factors on bank profitability. The definition of internal factors which influence bank profitability is assessed in different ways by world-known authors. Therefore, in this research repayment of assets (ROA) was set as a measure of bank profitability, while internal factors affecting it were considered: bank size, liquidity risk, capital and sufficiency of bank loans. The purpose of this paper is to examine the empirical relation between internal factors determining bank profitability and profitability as a dependent variable. The empirical analysis is based on data, or rather on the financial statements published by eight commercial banks in Kosovo during the period 2010 -2014. The number of observations included in the analysis was 38.

The study is divided into seven parts, where the introduction is followed by the literature review section, showing the opinion of world-known authors in relation with the factors determining bank profitability. The third section will provide information on the methodology and empirical model, while the fourth section includes research hypotheses. Description of variables and results of the research will be presented at the fifth and sixth section, and finally a summary and conclusion will end this research.

2. Literature Review

Numerous studies have been undertaken by various authors on the determinants of bank profitability. Nevertheless, this study will focus mainly on the factors which were considered in this research the determinants of profitability.

According to (Syafri, 2012, p. 237), the factors that have an impact on bank profitability may be external and internal. Based on the same source, external factors may all be factors that are not under the control of the bank, such as: competition, government regulations, money supply and inflation. Internal determinants of bank profitability are considered the factors that are influenced by management decisions and the bank policy objectives (Staikouras & Wood, 2004, p. 57).

As cited in (Luboteni, 2008, pp. 124 -125) the determining factor of profitability of commercial banks is effective management. According to the same source, it is worth mentioning that effective management differentiates successful banks from other banks. The author considers the reimbursement rate by assets and rates of return to capital markets as a measure of bank profitability.

Another research on the determinants of bank profitability was undertaken by (Adeusi, Kolapo, Aluko, 2014, pp. 4 -17) in Nigeria. They focused their analysis on internal and macroeconomic factors, where the cash return on assets (ROA), dependent on capital adequacy, asset quality, management efficiency, liquidity, inflation and gross internal product were used as variables that represent bank profitability. This research used as a sample the data of 14 commercial banks from 2000 to 2013. From the final results, the authors concluded that the main determinants of bank profitability were: asset quality, management efficiency and GDP, which had a significant impact on bank profitability. Nonetheless, the authors also did not rule out the importance of capital adequacy and inflation rate on bank profitability.

Scott & Arias (2011, pp. 214-225) in their research "Banking Profitability Determinants" used two main elements affecting the profitability banks, i.e. funds return on assets (ROA) as an internal factor, and GDP internal as an external one. The analysis was based on data taken from five banks of a higher level in the United States for the past 5 years. At the end of the analysis the authors came to the conclusion that all banks had an increase in their average weighted return of assets, despite the decrease of GDP per capita.

The research of (Staikouras, Wood, 2004, pp. 59-67) on the determinants of bank profitability includes 685 European banks. Their analysis focused on the following variables: return on assets ROA assets, loan risk, capital adequacy, capital risk, interest rate variability, the size of the bank, efficiency as a measure of cost, the interest rate, the rate of GDP growth, and the income per capita gross for each European country. Finally, the authors concluded that the capital adequacy of the bank size affect positively bank profitability, while the risk of loans and capital risk were inversely related to bank profitability. As for the macroeconomic variables, the interest rates had a positive effect while the variability of the interest rate and GDP growth rate had a negative effect on bank profitability. The authors (Alexiou,, Sofoklis, 2009, pp. 102-113) have conducted a research analysing the data from the six largest banks in Greece for a three month period during 2000-2007. The above mentioned authors in their model building for determining bank profitability and performance considered the return on equity (ROE) as a representative of profitability, on the other hand as an important element for analysis were considered: loan risk, which is defined as the risk of financial losses from non-respect of the obligations of the borrower, the bank capital, the size of the bank, the risk of liquidity, cost efficiency and productivity. On the other hand, macroeconomic determinants were considered the rate of inflation, interest rates, GDP and private consumption. From this analysis, the authors concluded that bank size and productivity had a positive and significant connection with bank profitability and loan risk, efficiency as measured by cost and liquidity risk had a significant negative relation with bank profitability. Relying on macroeconomic

variable, inflation rate and private consumption had a positive correlation in bank profitability and on questions about GDP research, the results proved his influence as insignificant in the bank profitability.

In the study of (Ayanda, Christopher, Mudashiru, 2013, pp. 163-176) conducted in Nigeria for First Bank, during the period 1980 to 2010, was designed this model for research: as dependent variables the deemed rate of return on assets (ROA), the rate of return on equity (ROE) and the marginal lending rate (NIM), and as independent variables were considered: capital adequacy, bank size, liquidity risk, loan risk, management efficiency and effectiveness of work. The macroeconomic variables that were incorporated in the model were: the real growth rate of GDP, money supply and inflation rate. Through their empirical research the authors concluded that a shortage of capital, liquidity risk and loan risk had a negative relation with profitability, bank size had no impact on bank profitability, while the efficiency of the management had a positive relation with bank profitability. In the context of macroeconomic variables only the money supply can be calculated as the determinant of banks profitability because it had a significant relation on profitability, while two other variables, the rate of inflation and GDP resulted not to be determinants of profitability.

Eliona Gremi's (Gremi, 2013) study conducted on the impact of internal factors on bank profitability in Albania was based on data of 12 most important banks in the country for the period 2005-2012. The variables that were used in this study were: rate of return on assets ROA, the size of the bank, bank loans, loan risk and bank deposits. From the results of this study the author comes to the conclusion that: bank loans, bank deposits and bank interest had a positive correlation with profitability, whereas loan risk had a negative relation.

3. Research Methodology and Econometric Model

Secondary sources, such as balance sheet and income statement from a total of eight commercial banks in Kosovo were used for this study. Data were obtained from annual reports, audit reports and financial statements of banks published on their official websites, for the period 2010-2014[1] which included a total of 38 observations.

Based on the literature review, internal elements with the greatest impact on bank profitability in Kosovo were considered: the return of funds from assets (ROA), which is used in almost all empirical studies as a measure of profitability. According to the econometric model profitability was considered as a dependent variable being influenced by other independent variables: the size of banks, capital

[1] An exception from this period is ISbank which was established in November of 2012.

adequacy, loan risk and liquidity risk. The data processing in this study will be done with SPSS program. The study hypothesis will be tested by correlation and linear regression.

$Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \mu$

Y - return of funds from assets (ROA- net income / total assets)

X1 - bank size (BS - natural logarithm of total assets)

X2 - capital adequacy (CA - total equity / total assets)

X3 - bank loans (BL - total loans / total assets)

X4 - liquidity risk (LR - total loans / total deposits)

μ - coefficient of errors

4. Hypothesis

The main objective of this study is to find a relationship between variables defined in the paper as a determinant of bank profitability and profitability itself. Four hypotheses were set which will be tested by the above-mentioned tests. Similar assumptions are tested by many other authors worldwide.

H1: There is a positive correlation between the bank size and profitability

H2: There is a negative correlation between bank capital and profitability

H3: There is a positive correlation between bank lending and profitability

H4: There is a negative correlation between liquidity Risk and profitability

5. Description of Variables

ROA - return of funds from assets in our study was defined as the dependent variable. ROA was calculated by putting into ratio the net profit ratio with total assets, and at the same time it is used as a measure of bank profitability. In short return on assets shows how income generated from investments in capital or assets (Syafri, 2012, p. 11).

BS - bank size is calculated by natural logarithm of total bank assets. In reviewing the literature, we noticed several studies where the size of the bank appears positive and negative about probability. Another positive and significant relation to bank profitability was tested by (Staikouras, Wood, 2004), (Pasiouras & Kosmidou, 2007) and (Syafri, 2012).

CA - capital adequacy was calculated by the ratio of the capital with the total of assets. This indicator measures the financial sustainability of the bank, namely the capacity of the bank to cover possible losses from various risks (Roman, Dănuleţiu, 2013, p. 582). Based on the browsed literature, capital adequacy has a positive connection with the bank profitability, which was tested in the report by (Staikouras, Wood, 2004), (Roman, Dănuleţiu, 2013), (Gremi, 2013). The negative correlation, on the other hand, was tested by (Saône, 2011; Ali et al., 2011; Qin & Pastory, 2012).

BL - Bank loans were calculated by the ratio of total loans in ratio with total assets and are simultaneously interpreted as a source of income and as a measure of liquidity assets (Davydenko, 2010, p. 13). The study intended to test a positive relationship with bank profitability based on the more loans banks give, the more opportunities they will have to generate revenues.

LR - Liquidity risk relates to the bank ability to respond to unforeseen needs for financial resources. Effective liquidity management enables the bank to have the chance to answer all customers' needs even when the bank is in the financial disadvantage, non-effective liquidity management can lead to serious consequences. Liquidity risk calculations were calculated by the ratio of total loans to the total of deposits. It was aimed to test a negative report on the bank profitability relying on the fact that if banks keep large amounts of money without investing in the market, there will be a negative effect on profitability. (Ayanda, Christopher & Mudashiru, 2013).

6. Results of Survey Analysis

6.1. Description of Statistical Results

Statistic results of the data are presented in Table 1, indicating the minimal, maximal, average and standard deviation values of each variable.

Return of assets from assets (ROA) for the eight banks in Kosovo, for the period 2010-2014, has an average value of 0.008; the maximum value is 0.031, the minimum value -0.044 with a standard deviation of 0.014. Therefore it results in a very low variability from average.

Another variable is the size of the bank (BS) for the same period has the following values: 20.50 maximum value, minimum value 15.80, the average value is 19.15 while the standard deviation for this variable is 1.09. This average deviation occurs due to the establishment a new bank in Kosovo in 2012, and it is normal that in the first year the value of bank assets is not great. Capital adequacy another variable which was used as a factor affecting bank profitability in the statistical analysis showed the following values: minimum value 0.064, maximum value 0.941, the

average value, standard deviation 0.160 and 0.160. Statistical values of bank loan variables are: Minimum value 0.000, the maximum value is 0.836; the average value is 0.657 with a standard deviation 0.155. Liquidity risk has a minimum and maximum value of 0.000 to 10.132, while the average value 1.07 has a 1.534 standard deviation. The establishment of a new bank had influenced in almost all variables at the end of 2012, but a higher impact of liquidity risk was noticed, considering that liquidity risk was calculated higher than the ratio of loans to deposits. The newly established bank in its first year of establishment had no bank loans and had a very low level to deposits due to lack of market.

Table 1. Statistical description of the factors determining bank profitability

Descriptive Statistics					
	N	Min.	Max.	Mean	Std. Dev.
Return of assets (ROA)	38	-.0440	.0314	.008445	.0146053
Bank size (BS)	38	15.8070	20.5060	19.258763	1.0939190
Capital adequacy (CA)	38	.0648	.9410	.134511	.1604934
Bank loans (BL)	38	.0000	.8365	.657018	.1557994
Liquidity risk (LR)	38	.0000	10.1329	1.074268	1.5346567
Valid N (listwise)	38				

Source: calculated by the author

6.2. Empirical Results from the Analysis of Data

Empirical results will be used to test the hypothesis that we raised; initially the hypothesis will be test by correlation - person coefficient where the dependent variable ROA will be set on ratio with independent variables BS, CA, BL and LR defined in the model.

Based on the results on table no. 2, displaying bank profitability compared to bank size, it is shown that the coefficient of significance p = 0.000 is less than 0.01, which means that there is a relationship between them. While the Pearson coefficient tells us the solidity of the connection between them, from the table we see that r = 0.816 which means that these two variables have a very close relation since r> 0.49 and this is also understood by signs that the link between them is positive. Through this H1 is proved: bank size has a positive correlation with bank profitability.

Table 2. The ratio between bank size and profitability

		ROA	BS
ROA	Pearson Correlation	1	.816**
	Sig. (2-tailed)		.000
	N	38	38
BS	Pearson Correlation	.816**	1
	Sig. (2-tailed)	.000	
	N	38	38
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: calculated by the author

Table No. 3 shows the relation between capital adequacy and bank profitability. From the results it can be understood that the coefficient of significance p = 001 which means that p <0.01 this confirms that the relationship between these variables is important. While Pearson coefficient r = - 0.50 confirms that connection between these variables is strong (r> 0.49) and through the sign it can be concluded that the relationship is negative. Based on this result it was possible to prove H2: There is a negative relationship between capital adequacy and bank profitability.

Table 3. The ratio between capital adequacy and bank profitability

		ROA	CA
ROA	Pearson Correlation	1	-.500**
	Sig. (2-tailed)		.001
	N	38	38
CA	Pearson Correlation	-.500**	1
	Sig. (2-tailed)	.001	
	N	38	38
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: calculated by the author

The results of Table no. 4 show a significant link between bank loan and bank profitability since coefficient p = 0.000 p <0.01. The connection between these two variables is strong, this is confirmed by the coefficient of Pearson correlation r = 0.608, as well as by the positive sign of the coefficient r it is proven that their relationship is positive, thus confirming H3: There is a positive relationship between bank loan and bank profitability.

Table 4. The relationship between bank loan and profitability

		ROA	BL
ROA	Pearson Correlation	1	.608**
	Sig. (2-tailed)		.000
	N	38	38
BL	Pearson Correlation	.608**	1
	Sig. (2-tailed)	.000	
	N	38	38
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: calculated by the author

The last report of this study is presented in Table no.5 showing the link between liquidity risk and bank profitability. The results prove a positive relation between them, p = 0.000 with a great hardness and r = - 0.570 with a negative relationship. The result above supports the last hypothesis H4: There is a negative relationship between liquidity risk and bank profitability.

Table 5. The ratio between liquidity risk and bank profitability

		ROA	LR
ROA	Pearson Correlation	1	-.570**
	Sig. (2-tailed)		.000
	N	38	38
LR	Pearson Correlation	-.570**	1
	Sig. (2-tailed)	.000	
	N	38	38
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: calculated by the author

6.3. Regression Model

The results of the regression model, in which we presented the report of profitability as the dependent variable for the bank size, loan risk, capital and sufficiency of bank loan as independent variables are as follows.

The F - test explains the relationship between independent variables the values of tolerance and VIF values. From the results shown in the table below, it can be noticed that the lower value of tolerance is 0.288, which means that is higher than 0.10 and higher value of VIF is 3.467, which is also lower than the value of allowing 10. Since the values are within the allowable limits it shows that the model is acceptable, reaffirming that the independent variables do not have a connection between them.

Table 6. The influence of variance factor – F

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Bank Size (BS)	.477	2.096
	Liquidity Risk (LR)	.766	1.305
	Capital Adequacy (CA)	.311	3.215
	Bank Loan (BL)	.288	3.467

Source: calculated by the author

The summarizing model of regression displays the values of R, R^2, R^2r regulation and standard errors. Relying on tab.nr 7 it can be observed that the value R is 0.869, the value of R^2 is 0.755 and adjusted R^2 value is 0.725. If correct R^2 is converted into percentage it can be concluded that 72.5% percent of the changes in bank profitability are explained by independent variables defined in the model.

Table 7. Assessment of the model

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.869[a]	.755	.725	.0076613
a. Predictors: (Constant), BS, BL, LR, CA				
b. Dependent Variable: ROA				

Source: calculated by the author

ANOVA statistical results presented in Table no.8 show a significance of the model since coefficient p = 0.000 i.e. p <0.0005 and all the values of the explanatory variables are different from 0.

Table 8. Results of the ANOVA regression

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.006	4	.001	25.367	.000[b]
	Residual	.002	33	.000		
	Total	.008	37			
a. Dependent Variable: ROA						
b. Predictors: (Constant), BL, LK, BS, CA						

Source: Calculated by the author

Table no.9 shows statistical values for each independent variable in the model. Based on the following data, Beta coefficient is independent variables: the size of the bank 0.672, 0.317 liquidity risk, capital adequacy 0.280 and 0.272 bank loan. This shows that the highest impact on bank profitability based on the amount of beta coefficient has: bank size, liquidity risk then two other variables capital adequacy and bank loan. In the last column of this table are presented coefficient sig, where the first two variables, the size of the bank and the liquidity risk coefficient p <0.05, which mean that the contribution of these has a high statistical significance on bank profitability. While the value of sig coefficient. p> 0.05 per variables: capital adequacy and bank loans, confirms that the contribution of these two variables on bank profitability has not a high statistical significance.

Table 9. Evaluation of each independent variable in the equation

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.181	.031		-5.946	.000
	BS	.009	.002	.672	5.387	.000
	LR	-.003	.001	-.317	-3.214	.003
	CA	.025	.014	.280	1.810	.079
	BL	.026	.015	.272	1.695	.099

Source: calculated by the author

7. Discussion and Conclusion

This study aimed to investigate the empirical relation between internal factors determining bank profitability and profitability as a dependent variable. The research was based on annual data of eight commercial banks in Kosovo during the period 2010 – 2014, and included a total of 38 observations.

The empirical analysis pointed out that the four independent variables: capital size, liquidity risk, capital adequacy and bank loans, which were tested separately with the dependent variable profitability, had a strong, significant relation with each-other. Bank size and bank loans had a positive correlation with profitability, which means that the larger the bank wealth and the loan level, the higher bank profitability is. A negative relation was confirmed between loan risk and capital adequacy with bank profitability which means that the higher the level of the bank capital adequacy, the lower the bank profitability will be. This relation was

discussed by many authors because if the bank maintains a low level of capital without investing normally this will reflect a higher level of profitability, but at the same time it will face a risk of high liquidity level, which prevents banks to cover potential losses. From the results of linear regression analysis where presented are the interactions of independent variables in relation with dependent variable, it can be stated that bank size and loan risk had a significant impact on bank profitability, while the influence of two other variables, capital adequacy and bank lending had minor importance. Based on what was said above it can be concluded that commercial banks in Kosovo can increase the level of profitability by raising the level of bank lending and other investments, as well as by managing correctly their risk and liquidity. Future researches of this nature intend to extend the study incorporating other important factors, internal and external ones, which influence bank profitability, such as: interest rates, exchange rates, management of costs, inflation rate and the rate of GDP.

References

Adeusi, O.S, Kolapo, T.F, Aluko, O.A. (2014). Determinants of commercial banks' profitability, panel evidence from Nigeria. *International Journal of Economics, Commerce and Management, II* (12), 4-17.

Ahmeti, S, Hoti, A. & Alshiqi, S. (2014). Analysis of Financial Performance in the Banking System in Kosovo - the Period 2006-2012. *Journal of Knowledge Management, Economics and Information Technology, IV* (2), 2.

Alexiou, C. & Sofoklis, V. (2009). Determinants of Bank Profitability: Evidence from the Greek Banking Sector. *Economic Annals, IV* (182), 102-113.

Ayanda, M.A, Christopher, I. & Mudashiru, A.M. (2013). Determinants Of Banks' Profitability in a Developing Economy: Evidence from Nigerian Banking Industry. *Interdisciplinary Journal of Contemporary Research In Business, 4* (9), 163-176.

BQK (2014). *Sistemi Financiar, Informata mujore/Financial System. Monthly information.* Prishtine: Banka Qendrore e Kosoves.

Davydenko, A. (2010). Determinants of Bank Profitability in Ukraine. *Undergraduate Economic Review, 7* (1), 13.

Gremi, E. (2013). Internal Factors Affecting Albanian Banking Profitability. *Academic Journal of Interdisciplinary Studies, II* (9).

Haron, S. (2004). Determinants of Islamic Bank Profitability. *Global Journal of Finance and Economics, I* (1).

Luboteni, G. (2013). *Bank and Business Banking.* Prishtine.

Luboteni, G. (2008). *Menaxhmenti Bankar/Banking management.* Prishtine: Universiteti i Prishtines, Fakulteti Ekonomik.

Roman, A. & Dănuleţiu, E.A. (2013). An Empirical Analysis of the Determinants of Bank Profitability in Romania. *Annales Universitatis Apulensis Series Oeconomica, 15* (2), 582.

Scott, W.J. & Arias, C.J. (2011). Banking Profitability Determinants. *Business Intelligence Journal, IV* (2), 214-225.

Staikouras, K.CH. & Wood, E.G. (2004). The Determinants of European Bank Profitability. *International Business & Economics Research Journal, 3*, 59-67.

Syafri, M. (2012, 9 7-8). Factors Affecting Bank Profitability in Indonesia. *The 2012 International Conference on Business and Management*, 237.

Sufian, F. & Chong, R.R. (2008). Determinants of Bank Profitability in a Developing Economy: Empirical Evidence from the Philippines. *Asian Academy of Management Journal of Accounting and Finance*. Vol. IV. No. 2.

All, Z. (2014). Determinants of Banks' Profitability in a Developing Economy: Empirical Evidence from Tanzania. *European Journal of Business and Management. Vol. VI, No. 31.*

Ana, K., Blanka, S. & Roberto, E. (2011). Determinants of Bank Profitability in Croatia. *Croatian Operational Research Review (CRORR), Vol. 2.*

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, Vol. 2, No. 9.*

Nahang, F. & Araghi, K.M. (2013). Internal factors affecting the profitability of City Banks. *International Research Journal of Applied and Basic Sciences.* Vol, 5 (12).

Duraj, B. & Moci, E. (2015). Factors influencing the bank profitability – empirical evidence from Albania. *Asian Economic and Financial Review, Vol. V. No. 3.*

Almazari, A.A. (2014). Impact of Internal Factors on Bank Profitability: Comparative Study between Saudi Arabia and Jordan. *Journal of Applied Finance & Banking, Vol. 4, no. 1.*