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Credit Risk Management Practice Followed by Microfinance Banks in Pakistan

ZAHID IQBAL
MS/M.Phill (Commerce)
Visiting Lecturer, Department of Commerce
The Islamia University of Bahawalpur
Bahawalnagar Campus, Punjab, Pakistan
HASSAN AHMAD
M.Phill Scholar
Visiting Lecturer, Department of Commerce
The Islamia University of Bahawalpur
Bahawalnagar Campus, Punjab, Pakistan
MUHAMMAD ARSLAN ASLAM
MBA/M.Phill Scholar
Hailey College of Banking & Finance
Punjab University, Lahore, Pakistan
SHAHID IQBAL
M.Com Scholar, The Islamia University of Bahawalpur
Bahawalnagar Campus, Punjab, Pakistan

Abstract:

The core objective of this study is to observe the credit risk management practice by filling the gap through practical evidence on risk practices in microfinance banking sector of Pakistan. Pairwise Granger Causality test is used to examine the dynamic relationship between Credit risk (Dependent variable) through gearing ratio, liquid assets and size of bank (Independent variables). Secondary data from all microfinance banks from 2000 to 2014 used for analysis. Positive & significant relationship of gearing ratio & liquid assets observe with credit risk whereas relationship between credit risk and size of banks found insignificant & negative.

Key words: Credit risk, Gearing ratio, Liquid assets and Size of bank.

1. INTRODUCTION

1.1. Credit Risk(CR):

Credit risk is the situation when a company or any individual person fails to pay their obligation including principal amount along with the interest on this principal amount. This type of risk is associated with normal banking business as a bank sanctioned loan to specific company or person. Credit risk normally arises when a person or company fails to get desired result as expected by the company or any person from their normal operations of business. But banks always try to mitigate this by the provision of collateral, securities and guarantee and through enforcement of different legalization in this regard. Credit risk may be define as it is the expectations that an organization or person unable to pay back money as that is borrowed by him from different financial institution or from any money lender. Credit risk can be arises from the success depends upon the success of borrower in term of return on their capital. As discussed by the Athanasoglou et al. (2008) credit risk is explain the portion of debts in value of assets or debt to total assets ratio. In other word we can say that how much companies can relies on debt to finance their total assets.

As discussed by the Beuer&Ryser (2004) banking sector or lender tries to mitigate this risk through the provision insurance, pledge, hypothecation, mortgage, assurance, insurance &personal guarantees besides this, banks also takes credit risk with the expectation of higher return by following a general rules of business as more risk more profit. Credit risk normally calculated by assessing the capacity of borrower in term of repayment of principal amount and interest. Lower the borrower capacity for repayment of loan mean high rate of

return and higher the capacity of borrower for repayment of loan means lower the interest rate as lower capacity involve high credit risk and high capacity means lower the credit risk. Finally all these referred to the portion of debts to purchase the assets of company that included all above referred elements. Papapanagiotou& Schumacher (2002) observed that credit rating can be measured through debt to total assets ratio by examining the portion of debts in total assets of firms.

1.2. Gearing Ratio (GR):

As discussed by Barnhill et al, (2002) gearing ratio is a critical variable associated with the credit risk. Gearing ratio can be estimated by drawing the portion of debts out of total capital or in other work gearing ratio may be as debt to equity ratio. Gearing ratio also explains the portion of debts in banking sector assets. Higher the portion of debt in specific assets means the firm is more risky. Some time to measure this ratio a standard ratio may be computed by estimating the amount from the banking sector industry. Gearing ratio can be better explain through Interest coverage ratio (EBIT/Total Interest) that indicates the capacity of an organization to pay their debt services from their earnings before interest and tax. Second important element, through this we can best explain the gearing ratio is the debt ratio (Total Debt/Total Equity) means a portion of debts in firm total assets.

A firm is more risky or less risky also depends upon the gearing ratio, high gearing ratio tends to high risk whereas low gearing ratio means lower the risk. The financial strength of a bank depends upon their capital structure including portion of debt and owner equity. So, higher debt ratio means the major portion of bank capital depends upon the debts and subsequently interest on this debt. It means a company will be considered more risky if their debt ratio and interest coverage ratio is high. Recovery of debts also increases the risk level if banks sanctioned loan especially when its debt ratio is higher.

Different studies showing positive relationship between gearing ratio and credit risk (Ali et al, 2011).

1.3. Liquid Assets (LA):

As mentioned by Al-Tamimi (2005) liquidity is an important factor for credit risk management as it included availability of current assets to pay the current liabilities or the ability of banks to pay their current liabilities. Liquid assets referred total loans to total assets as banks being use the deposit amount for lending to generate the income through interest. Greater the value of liquid assets means the banks having more liquid assets to pay their current liabilities as it is suitable for business operations. Whereas the lower liquidity ratio means banks are unable to pay their current liabilities and it also disturbs the operations of banks. While sanctioning loan banks also required from their customers to maintain adequate liquidity and the same is being considered a part of agreement between the customer and banks. So, finally we can conclude that lower the value of liquid assets leads to increase credit risk whereas higher the value of liquid assets means lower the credit risk. As discussed by the Ali et al. (2011) liquid assets having positive relationship with credit risk.

1.4. Size of Bank (SOB):

As discussed by Dinger (2009) Size of bank is another important and critical variable that is associated with credit risk of microfinance banks that are working in District Bahawalnagar. Size of bank can be used as explanatory variable to measure the credit risk. Size of the bank can be a determinant of credit risk as it effects to the liquidity and cost. As described by Ali et al (2011) credit positioning is also associated with size of bank and size of banks having positive relationship with credit risk. Abdullah & Khan (2011) mentioned that credit risk & size of banks having negative relationship.

2. LITERATURE REVIEWS

As discussed by the Athanasoglou, Brissimis and Delis (2008) credit risk is the portion of debts in the value of total assets of the firm is called risk, it means how much a company relies on its debts to purchase an asset. Papapanagiotou and Schumacher (2002) mentioned that used same ratio to access their credit rating that contribute its role for assessment of credit risk. According to Bauer and Ryser (2004) observed that high debt ratio leads to higher risk and lower debts ratio mean lower credit risk. Size of bank having positive correlation with operational risk and showing inverse relationship with credit risk. So, credit risk having no dependency with size of bank, it mean size of bank does not having any link with credit risk(Ali et al, 2011).

According to Ahmed et al (2011) size of bank directly correlated with liquidity risk where as size of bank negative relationship with credit risk. Whereas gearing ratio having negative & significant relationship with liquidity and operational risk but showing positive relationship with credit risk. As discussed by Demirovic and Thomas (2007) size of bank did not having any relationship with credit risk it means remaining factors remain same, so size of bank does not affect the credit risk of banks. Liquid assets having positive correlation with credit risk it mean credit risk increases or decreases with reference to liquid assets position of the firm. Liquidity management is an important part of credit risk management. According to him the size of banks having significant and negative relationship with credit risk(Iqbal, 2012).As discussed by the Gabbi (2004)liquidity and credit risk having positive correlation with each other.

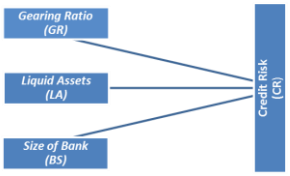
Vento and Ganga (2009) mentioned that in global financial markets liquidity of banks is an important indicator for important decision making with reference to credit risk management. The banks that suffer the liquidity problems,

their risk level is high as compare to those banks that having more liquid assets (Franck &Krausz, 2007).Size of bank directly related with credit and liquidity risk where as a negative relationship was observed between size of banks with operational risk where as gearing ratio having negative relationship with credit risk and showing positive correlation with operational risk. Size of bank and net working capital have positive but irrelevant relationship with liquidity risk but having positive relationship with credit risk resulted from conventional banks and Islamic banks (Ahmed et al, 2011).

3. METHODOLOGY

Granger Causality test is used to examined the dynamic relationship between dependent variable (Credit Risk) and independent variable (Gearing ratio, liquid assets & size of banks).

3.1. Theoretical Framework:



3.2. Hypothesis of Study:

1	H_o	CR does not Granger Cause GR	*1st, Pair*
	H_1	CR does Granger Cause GR	
2	H_o	GR does not Granger Cause CR	
	H_1	GR does Granger Cause CR	
3	H_o	CR does not Granger Cause LA	*2nd, Pair*
	H_1	CR does Granger Cause LA	
4	H_o	LA does not Granger Cause CR	
	H_1	LA does Granger Cause CR	
5	H_o	CR does not Granger Cause BS	*3rd, Pair*
	H_1	CR does Granger Cause BS	
6	H_o	BS does not Granger Cause CR	
	H_1	BS does Granger Cause CR	

3.3: Variables of Study:

1	**CR**	Credit Risk
2	**GR**	Gearing Ratio
3	**LA**	Liquid Assets
4	**BS**	Bank Size

3.4. Model of Study:

1	$CR_t = GR\ t + GR_{t-1} + \ldots + CR_{t-1} + \ldots\ldots$ (1)
2	$CR_t = LA_t + LA_{t-1} + \ldots + CR_{t-1} + \ldots\ldots$ (2)
3	$CR_t = SB_t + SB_{t-1} + \ldots + CR_{t-1} + \ldots\ldots$ (3)

FINDING AND CONCLUSION:

In Granger Causality test two variables are analyzed together to measure its interaction. The possible results of this method are given as under.

- Unidirectional Granger causality from variable Y_t to variable X_t. (One Direction)
- Unidirectional Granger causality from variable X_t to Y_t (One Direction)
- Bi-directional causality (Bi – direction)
- No causality (Independent Or No relation)

4.1. Decision Criteria:

1	**Alpha (α)**	0.05
2	**Decision Rule**	Reject H_o if P-value < 0.05
3	**DNR**	Do not reject.

4.2 Results of Pairwise Granger Causality Tests:

Pairwise Hypothesis:	Obs	F-Statistic	Prob.	Decision	Type For Causality
CR↗GR	15	5.5354	0.0049	Reject H_o	Bi-directional causality
GR↗CR	15	6.6589	0.0024	Reject H_o	Bi-directional causality
CR↗LA	15	4.6580	0.0715	Reject H_o	Bi-directional causality
LA↗CR	15	5.2630	0.0117	Reject H_o	Bi-directional causality
CR↗BS	15	1.0648	0.3751	DNR H_o	No. causality
BS↗CR	15	0.4533	0.6456	DNR H_o	No. causality

4.3. Conclusion:

The basic purpose of this study to examined the interrelationship among the certain variables that are associated with credit risk management. Three models were used in this study to measure the relationship between the variables of study that are cited above. According to the result of study Bi-directional causality exist between credit risk and gearing ratio it means credit risk gearing ratio depends upon each other. Bi-directional causality also exists between credit risk and liquid assets mean credit risk and liquid assets having positive relationship. No, causality exist between credit risk and size of bank it mean size of bank does not have any effect on credit risk.

REFERENCE:

Ahmed, N., Akhtar, M. F., &Usman, M. (2011). "Risk Management Practices and Islamic Banks: An Empirical Investigation from Pakistan". *Interdisciplinary Journal of Research in Business*, 1 (6)50-57.

Akhtar M. F., Ali K.., &Sadaqat S. (2011). Liquidity Risk Management: A comparative study between Conventional and Islamic Banks of Pakistan. *Interdisciplinary Journal of Research in Business*, 1 (1), 35-44.

Ali, K., Akhtar, M. F., &Sadaqat, S. (2011). "Financial and Non-Financial Business Risk Perspectives – Empirical Evidence from Commercial Banks".*Middle Eastern Finance and Economics*, 150-159.

Al-Tamimi, H. H. & Al-Mazrooei, F.M. (2007). Banks risk management: a comparison study of UAE national & foreign banks. *The Journal of Risk Finance*, 8(4), PP. 394-409.

Athanasoglou, P. P., Brissimis, S. N., & Delis, M. D. (2008)."Bank-specific, industry-specific and macroeconomic determinants of bank profitability".*Journal of International Financial Markets Institutions and Money* , 121–136.

Barnhill, T. M., Papapanagiotou, J. P., & Schumacher, L. (2002). "Measuring Integrated Market and Credit Risk in Bank Portfolios: *An Application to a Set of Hypothetical*

Bauer, W., &Ryser, M. (2004)."Risk management strategies for banks".*Journal of Banking & Finance*, 28, 331–352.

Demirovic, A., &Thomasn, D. C. (2007)."The Relevance of Accounting Data in the Measurement of Credit Risk".*The European Journal of Finance*, 13 (3), 253–268.

Franck R., &Krausz.M, (2007).Liquidity risk and bank portfolio allocation", *International Review ofEconomics and Finance,* (16). 60– 77

Gabbi G. (2004). Measuring Liquidity Risk in a Banking Management Framework.*ManagerialFinance,* (30), 44-58.

Iqbal A. (2012). Liquidity Risk Management: A Comparative Study between Conventional and Islamic Banks of Pakistan. *Global Journal of Business & Management Research*, 12 (5), 55.

Sawada (2010). Liquidity risk and bank portfolio management in a financial system without deposit insurance: Empirical evidence from prewar Japan, *International Review of Economics and Finance,* (19), 392–406.

Vento A.,& Ganga. (2009). Bank liquidity Risk Management and Supervision. *Journal of Money,investment and banking,* 79-126.