Analysis of Repayment Behavior in Commercial Banks from Customers Perspective: A study on Mercantile Bank Limited, Bangladesh.

Monir Ahmmed*, Serajul Islam ** and Mohammad Toufiqur Rahman***

This paper is an attempt to analyze the repayment behavior of the clients of commercial Banks. Such an effort has been made to find the socio-economic factors that effect the loan repayment and to quantitatively determine the level of relationship. A sample bank named Mercantile Bank Limited has been randomly selected where 100 clients from different branches of the same bank have been surveyed through a structured questionnaire between August to December 2011.Descriptive Statistics was used to analyze the socio-economic factors while Multiple Regression Analysis was used to quantitatively determine the socio-economic factors that influence the level of loan repayment. Results show that the average age of the respondents is 45 years and the mean schooling is 14 years .Loan recovery ratio is high having 84% collection rate. It is also found that age of clients, years of schooling and nature of business have high positive correlation with loan recovery while experiences of client have moderate correlation. On the other hand ,the portion of the debt ,capital structure and age of company possesses very weak correlation

1. Introduction

Banks are profit oriented organization for which a bank invests its funds in many ways to earn income. At the same time bank runs the risk of default in repayment. Because of this problem, banks take some precautions while considering loan proposals. Still banks often find the precautionary measures fail to bring the expected return of the loan. Surprisingly sometimes it is observed that customers having the capacity to repay do not pay as they may not have the integrity i.e. willingness to pay. Thus it is a matter of question to know the determinants of repayment behavior of the loan customers and this is the first time to conduct such types of research in Mercantile Bank Limited as well as in Bangladesh also.

*Monir Ahmmed, Assistant Professor, Department of Business Administration, International Islamic University Chittagong, Bangladesh ,Cell:8801195137660;Email: moniiuc@yahoo.co.uk
** Serajul Islam ,Associate Professor, Department of Business Administration, International Islamic University Chittagong, Bangladesh , E-mail: serlambd@yahoo.com
*** Mohammad Toufiqur Rahman,Lecturer , Department of Business Administration, International Islamic University Chittagong, Bangladesh, E-mail: toufiq_robin@yahoo.com

2.Objective of the Study

The main objective of this study is to analyze the repayment behavior of customers of private commercial banks of Bangladesh. Specifically the objectives can be recognizes as:

- To identify the determinants of repayment behavior
- To find out the main reasons of customers reluctances to repay the loan.

3. Literature Review

In the area of repayment behavior in commercial banks, three strands of literature are found. First strand focuses on how the corporate governance practices in banks differ from those in non-banking firms (Prowse 1997; Furfine 2001; Morgan 2002; Macey and O˝ Hara 2003). Banks have two related characteristics that inspire a separate analysis of the corporate governance of banks (Furfine 2001)

Papias M. Malimba & Ganesan P. (2009) analyzed repayment behaviour in credit and savings cooperative society from rural Rwanda where the purpose of the paper was to examine the factors contributing to credit repayment behaviour among the members of savings and credit cooperative societies in rural Rwanda.The results from the tested empirical model show that age, gender and size of the household, purpose for credit, interest rate charges and number of official visits to the credit societies, have a strong effect on loan repayment performance (statistically significant at $p<0.05$) whereas size of credit disbursed, credit processing and disbursing time, borrowers' market place and income transfer from relatives and friends are more or less statistically significant at $p<0.20$ level. The remaining factors have logical and explainable sings but are not statistically significant.

Roslan & Mohd Zaini (2009) found that borrowers that did not have any training in relation to their business have a higher probability to default.

Tedeschi (2006) notes that there are two possible reasons for default: strategic default or default due to a negative economic shock. The lending contract provides incentives to discourage strategic default, but default due to an economic shock is unavoidable. In contrast, Hulme & Mosley (1996) argue that the important factors contribute to loan repayment performance are the design features of the loan. They categorize the design features into three categories namely access methods, screening methods and incentive to repay. Access methods generally ensure that poor people access the loans not the richer people and the features include maximum loan ceilings and high interest rate. Screening methods are used to screen out bad borrowers.

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poor people access the loans not the richer people and the features include maximum loan ceilings and high interest rate. Screening methods are used to screen out bad borrowers.

Awoke (2004), reports that most of the default arose from poor management procedures, loan diversion and unwillingness to repay loans. Therefore, the lenders must devise various institutional mechanisms that aimed to reduce the risk of loan default.

Godquin (2004) suggests that the provision of non-financial services such as training, basic literacy and health services has a positive impact on repayment performance.

Diagne, Chimombo, Simtowe, and Mataya (2000), working on data from Malawi, found that Social ties plays important role in repayment behavior.

Matin (1997), analyzing the determinants of the repayment performance of Grameen Bank borrowers, found that multiple nongovernment organization (NGO) membership, which he associates to access to other sources of "cheap" finance, had a negative impact on repayment performance. He also found that education and the area of the operated land, which could be proxies for wealth of the borrower, had a positive impact on repayment performance. The membership period was positively associated with default while loan size did not have a significant impact on repayment performance.

However, Stearns (1995) argues that, "it is the lender not the borrower, who causes or prevents high levels of delinquency in credit programs". While, Awoke (2004), reports that most of the default arose from poor management procedures, loan diversion and unwillingness to repay loans. Therefore, the lenders must devise various institutional mechanisms that aimed to reduce the risk of loan default.

From the above discussion we see that there is no statement which directly shows the analysis of repayment behavior of the customer. This paper specially focuses on the determinants of repayment behavior of the customer and the reason of customer reluctances to repay the loan in respect of commercial bank like Mercantile Bank Limited, Bangladesh.

4. Methodology of the Study

The research is mainly based on the survey through questionnaire and the relevant data of recovery have been taken from the sample bank's reports. Here the sample bank is the Mercantile Bank Limited. In our sample bank, there are almost 250 loan customers are active during the study period. Out of 250 customers, 100 loan customers (40% of the total population) of the bank from different branches have been selected through cluster sampling to analyze their repayment behavior.

Though the research is about the financial institution, it can be termed as a social study as the analysis of repayment behavior includes the social and psychology factors. It is worthy to mention that in a social study the determinant variables are many and it is difficult to make out the appropriate variables. In a social study like this about 15% R SQUARE value (which shows the extend to which the determinant

variables explain the research question) is satisfactory as it is not possible to include such a large number of determinant variables in the study. Still, to find the main determinant variables in this regard a test questionnaire has been prepared and sent to a few selected experts in such matters. On the basis of their response, the following determinant variables have been chosen and according the main questionnaire has been formulated to survey the customers. The selected determinant variables are:

1. Age of the customers
2. Schooling years of the customers
3. Ownership percentage
4. Age of the company from commencement of production
5. Own capital
6. Total capital
7. Loan sanctioned
8. Loan disbursed
9. Loan recovered
10. Loan due for recover
11. Loan overdue

Definition of Variables:

Age
Age of the customers possesses important consideration in social studies like this. To understand the real scenario people of different ages have been included here ranging from 25 to 67.

Schooling years of the customers
Schooling year of customers mean how many years they were engaged in school, collage, and university. The study include customers of all academic qualifications where customer who are below SSC level have been chosen on the other hand highly educated loan customers like MBA, Engineers, Doctor & many other professionals have been selected.

Ownership percentage
Ownership of the business of customers refers to the capital structure which is not same for all the loan customers as there are proprietorship business, partnership business and Limited company. But for our research limited companies have been excluded.

Age of the company
Here age of the business does not mean the date of the incorporation of the business. It means the years since the commencement of their commercial production. Still, it may be same time if the date of incorporation and commencement of production are the same for a particular organization.

Own capital
Own capital means what the customers have invested from their own pocket. As there are various options to invest money from family member, relatives and many other financial institutions.

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Total capital

Total capital refers to the money invested in the business from both the own surces of the owner and by borrowing from the bank.

Loan sanctioned

The amount of loan asked for and the loan sanctioned to a client often differ in Mercantile Bank Limited. Before sanctioning a loan the bank goes for a critical appraisal procedure and on the basis of the recommendation of the credit officer loans are sanctioned. In most of cases the bank sanctions 80% loan on the mortgage value.

Loan disbursed

Loan disbursed means the sanctioned amount that the borrowers withdraw from their loan account. The borrowers need to open account for getting loan in which the bank transfer entire amount of the loan or the partial amount of sanctioned amount. Borrowers can withdraw either the entire amount of money or partial amount.

Loan recovered

Loan recovered means the amount of money the borrower repays against the amount they borrowed. The repayment amounts are being determined by the bank. For fixing the installment Mercantile Bank uses software called AZZAMORT. Its inputs are principal amount that is the amount they sanctioned, interest rate per annum, conversion period (1, 3, 6, and 12) that is compounding monthly, quarterly, semiannually or yearly. Other inputs are number of installment and Maturity period.

Loan due for recovery

Loan due for recovery is the amount that is due from the customers to repay against the disbursed loans. It refers the money due from the customers at a specific day against his loan. When the amount due is paid it is deducted from the principal.

Loan overdue

Loan overdue is simply the difference between loan due for recovery and loan recovered.

5. Findings and Analysis(Estimated Results and Explanations)

Descriptive analysis:

Table 1: Descriptive Analysis

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Age	50	25	67	44.58	10.094
Schooling years	50	8	17	13.68	2.065
Age of company	50	1	24	11.94	6.888
Exprrience	50	3	33	15.70	8.681
Total capital	50	500000	60000000	1.3E+07	13645769.193
Own capital	50	300000	17500000	3993000	3312776.904
Loan sacntioned	50	250000	15000000	3381000	3277659.226
Loan disbursed	50	250000	10300000	2776000	2669599.068
Loan recovered	50	15516	10401941	1287151	1761955.221
Loan due for recovery	50	15516	10401941	1592139	1957305.032
Loan overdue	29	20155	1597101	525842.17	430446.192
Recovery ratio	50	0	1	.84	.168
Portion of debt	50	0	1	.33	.208
Nature of business	50	0	1	.46	.503
Valid N (listwise)	29				

Average age of customers is almost 45 years so they are in middle age. Their mean schooling year is almost 14 years showing graduate level. Experience is main success factor for every business. Here average experience is 15 years. Average capital is 1.3 crore and average of own capital 0.40 crore. Average loan sanctioned for the customers is 33 lac. Average loan disbursed is 27 lac. Loan recovered is 13 lac. Loan due for recovery is 16 lac. Loan overdue is 5 lac. Recovery rate (84%) is very high which shows the efficiency of Mercantile Bank. Mercantile Bank gives loan on the basis of investing capital of the firm. MBL sanctions loan only 33% of the capital. Most of the businesses under observation are trading and services oriented. The best recovery ratios are found for RMG and Real Estate Business.

Regression

The regression tells the statistical process by which several variables are used to predict another variable. Here the independent variables are: age, total capital, age of the company, portion of debt, schooling years, experience and nature of business. And the predicted variable is loan recovered. From the table R SQURE is 0.180 that means 18% of variation in dependent variable is explained by the regression. It is important to note there as in such behavioral study many sophisticated and complex variables can play role, a 15% R SQURE value is satisfactory for such a social study.

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Table 2: Regression Model

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.420[a]	.177	.039	.165

a. Predictors: (Constant), Nature of business, Experience, Portion of debt, Schooling years, Total capital, age of company, Age

Table 3: Coefficient

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.834	.221		3.776	.000
	Age	.001	.004	.077	.287	.776
	Total capital	.000	.000	-.248	-1.406	.167
	Age of company	.006	.005	.247	1.310	.197
	Portion of debt	-.276	.134	-.342	-2.064	.045
	Schooling years	.005	.012	.061	.413	.681
	Exprrience	-.003	.006	-.146	-.476	.636
	Nature of business	-.021	.052	-.062	-.405	.687

a. Dependent Variable: Recovery ratio

Coefficient of determination is the primary way we can measure the extent or strength of the association that exists among variables. From the above results achieved through the use of SPSS it is very clear that Age of the clients, years of schooling and nature of business show very strong and positive correlation with loan recovery. Again, experiences of client has moderate correlation with loan recovery while portion of debt, the amount of capital and age of company posses very weak correlation.
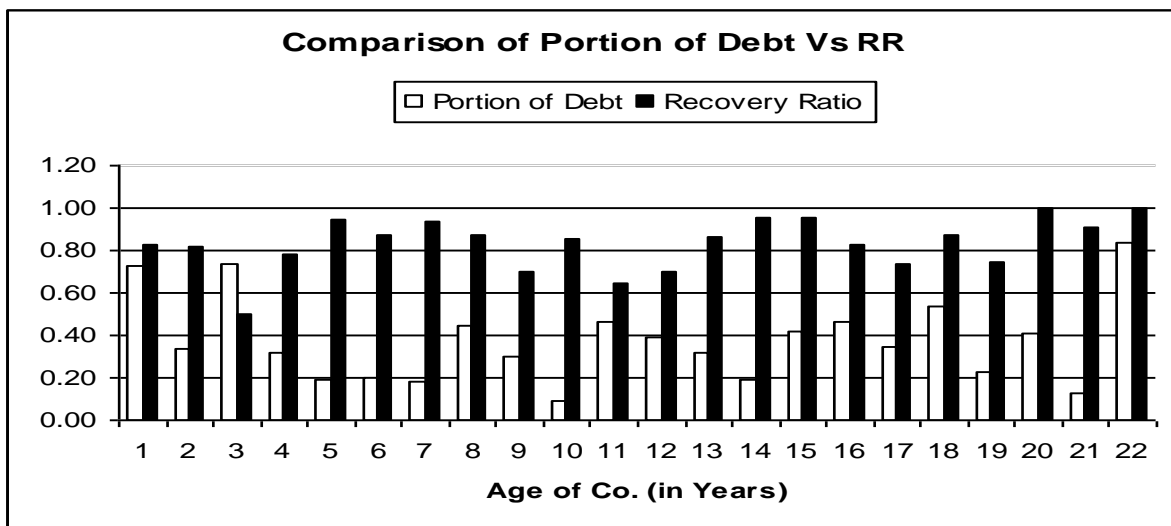
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Comparison of Loan Sanctioned & Loan Recovery

Comparison of LS and LR with Business Experience
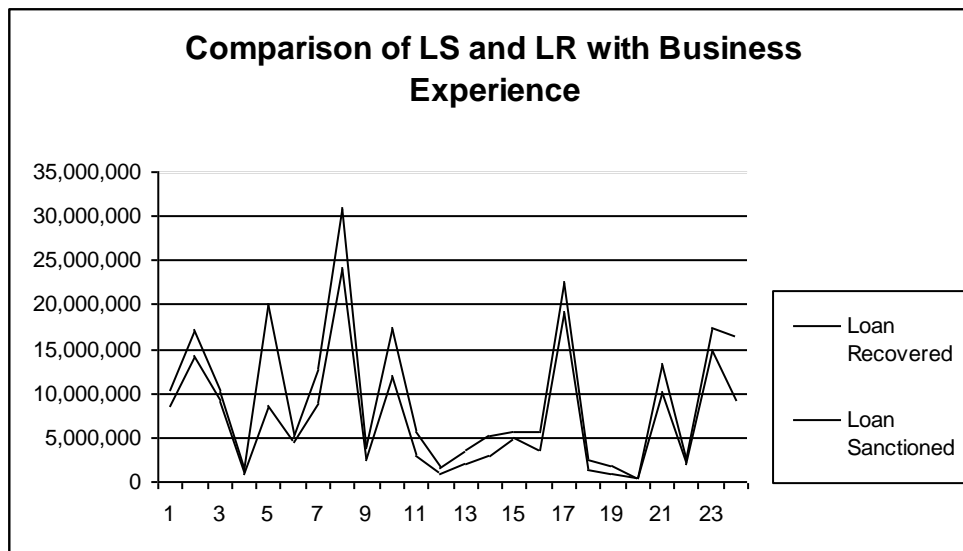
From the above graph we can easily understand that the borrower who have less experience in business have less recovery. The loan recovery is better as the experience of the borrower increases. At the extreme level where the business experiences of the borrowers are higher, they have the highest recovery of the loan.

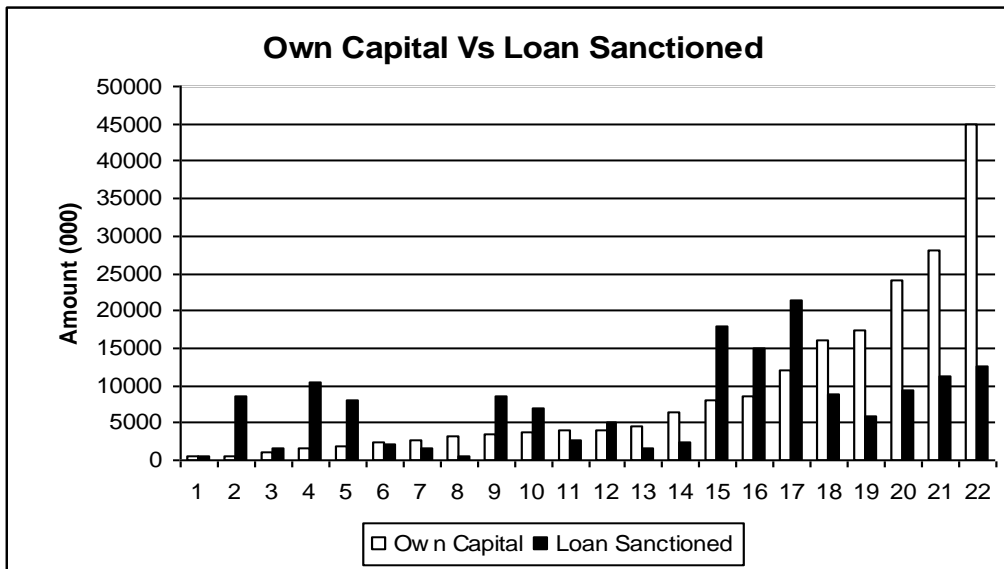## Comparison of Portion of Debt Vs Recovery ratio with experiences as an important factor

From the above figure, it is clear that the variation in repayment ratio is very insignificant considering the portion of debt in capital structure.

Own Capital Vs Loan Sanctioned

The above figure tells that there is no significant relationship between the capital of the borrower and the loan sanctioned by the banks. Thus it can be concluded that the bank sanctions loan irrespective of the size of the capital of the business of the borrowers.

6. Concluding Remarks

This study has shown that the loan recovery ratio is high enough that having 84% collection rate which shows the efficiency of Mecantile Bank. MBL sanctions loan only 33% of the capital and gives loan on the basis of investing capital of the firm. Most of the businesses under observation are trading and services oriented. The best recovery ratios are found for RMG and Real Estate Business. Age of the clients, years of schooling and nature of business show very strong and positive correlation with loan recovery. Again, experiences of client has moderate correlation while portion of debt, the amount of capital and age of company posses very weak correlation with loan recovery. The borrowers who have less experience in business have less recovery and the loan recovery is better as the experience of the borrower increases. It is also find out that there is no significant relationship between the capital of the borrower and the loan sanctioned by the banks. Thus it can be concluded that the bank should sanctions loan in respective of the size of the capital of the business of the borrowers. Though MBL has great efficiency in loan recovery, it is also expected that if MBL overcome the shortcomings then it will play a big role as the best Model Bank in Bangladesh for recover the loan repayment from the customers.

References

Zohir, S, Mahmud, S, Sen, B, Asaduzzaman, M, Jahirul Islam, Md, Ahmed, N, & Al Mamun, A 2001*, Monitoring and evaluation of microfinance institutions*, Final report, Dhaka: BIDS.46 (3), pp.599–621.

Bratton, M 1986, 'Financing smallholder production: A comparison of individual and group credit schemes in Zimbabwe', *Public Administration and Development*, 6, pp.115–132.

Godquin, M 2004, 'Microfinance repayment performance in Bangladesh: how to improve the allocation of loans by MFIs', *World Development*, 32(11), 1909-1926.

Khandker, SR, Khalily, B & Khan, Z 1995, 'Grameen Bank: performance and sustainability*, World Bank Discussion Paper*, 306, the World Bank, Washington, DC.

Morduch, J 1998, 'Does microfinance really help the poor? New evidence from flagship programs in Bangladesh', Mimeo, Department of Economics, Harvard University, Cambridge, MA.

Papias, MM & Ganesan, P 2009, 'Repayment behavior in credit and savings cooperative societies: Empirical and theoretical evidence from rural Rwanda', *International Journal of Social Economics*, 36(5), pp.608-625.

Paxton, JA 1996, 'Determinants of successful group loan repayment: an application to Burkina Faso', Unpublished doctoral dissertation, The Ohio State University, OH.

Sharma, M & Zeller, M 1997, 'Repayment performance in group based credit programmes in Bangladesh', *World Development*, 25(10), pp.1731-1742.

Sterns, K 1995, 'The hidden beast: delinquency in micro enterprise credit programme' ACCION Discussion Thesis Document No.6.

Zeller, M 1998, 'Determinant of repayment performance in credit groups: The role of program design, intra-group risk pooling, and social cohesion', *Economic Development and Cultural Change*, 46(3), pp.599-621.