

RESTRUCTURING STRATEGIES OF REGIONAL RURAL BANKS (RRBs) OF WEST BENGAL: AN EMPIRICAL STUDY

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Abstract

Regional Rural Banks (RRBs) are the banking organizations formed and operated as notified by Government of India covering one or more districts to cater the needs of rural and semi-urban people by granting loans and advances to small and marginal farmers, agricultural labourers and rural artisans. Financial viability of RRBs is a matter of concern since 1980s, five years after their formation. In this paper, we have tried to find out whether the past performance is having an effect on the future viability of the RRBs and for that we have divided the entire study period into 7yrs pre amalgamation and 8yrs post amalgamation and analyse factors influencing the performance of RRBs such as Loans and Advances to Total Assets, Investments to Total Assets, Liquidity to Total Assets and Net Income of Sponsor Banks to Total Assets. In this study, we have conducted panel data regression to examine whether the independent variables are significant enough to explain the dependent variable i.e., Net Income to Total Assets of RRBs. This study concludes that the RRBs are individual invariant but varies across time because they are having same formation structure, same restructuring pattern and common set of rules and regulations.

Key Words: Regional Rural Banks, Restructuring Strategies, Panel Data Regression, Fixed Effect, Random Effect, Hausman Test.

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Introduction

Regional Rural Banks are playing an active role in financing the weaker sections of the society in the rural areas and inculcating banking habit among the rural masses (Kalkundrikar, 1990). In June 1975, then Prime Minister Mrs. Gandhi announced the economic programme which among other things aimed at providing institutional credit to landless labourers, rural artisans and small and marginal farmers to liquidate rural indebtedness of those classes of people. A Working Group appointed by the Government of India under the chairmanship of M. Narashimham examined the question in detail and the Regional Rural Banks Ordinance was promulgated by the President on 26th September, 1975 and came into force with immediate effect. Accordingly, Syndicate Bank was called upon to set up the first Regional Rural Bank in the country in the name of "Prathama Bank" in Moradabad district of Uttar Pradesh in October 2nd, 1975 (Agarwal, 1991) which viewed as a unique experiment in improving the efficiency of rural credit delivery mechanism in India. The Narasimham Committee conceptualized the formation of RRBs in 1975, with joint

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sponsorships of Central Government, concerned State Government and Sponsor Banks in 50:15:35 to address the rural problem with a great level of professionalism and to develop the rural economy by providing credit to the small and marginal farmers, agricultural labourers, artisans and small entrepreneurs. A remarkable progress in their performance in the last three decades can be the increased number of branches in the rural areas. Given the multi agency share holding, the research paper makes an attempt to analyze those factors that influence the performance of the RRBs and the role played by sponsor bank in a broader scenario.

The financial viability of RRBs has engaged the attention of policy makers from time to time. Larger the number of persons served by a bank lesser is the intensity of banking service. Bank-investment will varies according to the variation in the density of population and degree of urbanization. Areas where the service of commercial banking is least intensive the need for RRBs in those areas is more. But due to lack of manpower planning, lack of proper economic and financial planning, bad recovery performance RRBs were making losses rigorously (Sinha Roy, 1994). It was recommended that small and uneconomic RRBs should be merged in the interest of economic viability. The objective of serving weaker section of the society can only be possible through self sustaining credit institutions. The Committee on Restructuring of RRBs identified 49RRBs for comprehensive restructuring (Bhandari Committee, 1994). The Expert Group on RRBs held the view that the weak RRBs should be viewed separately and liquidation of those should be considered. They might be merged with nearby RRBs (Thingalaya Committee, 1997). According to (Chalapathy Rao Committee, 2003) the entire system of RRBs may be consolidated while retaining the regional character of the institutions. The Group of CMDs of Select Public Sector Banks recommended the amalgamation of RRBs on regional basis into six commercial banks- one each for Northern, Southern, Eastern, Western and North-Eastern regions (Purwar Committee, 2004). Another committee was formed under the chairmanship of A.V Sardesai in the year 2005. It suggested that merger or amalgamation is the effective route to improve the operational viability of RRBs by taking into account the views of various stakeholders. But merging RRBs with the sponsor banks will go against the spirit of setting up the new RRBs as local entities and providing credit facilities to the rural masses. Therefore, many probing issues came up like the sponsor banks should be more accountable for the weaker RRBs or change in sponsor banks may sometimes improve the performance of RRBs. Therefore, a host of options have suggested starting with vertical merger (with sponsor banks), horizontal merger (among RRBs operating in a particular region). All these issues fall under broad questions that what are the important factors which drives the performance of RRBs. Therefore, in 2007, The Government of India (GOI) in consultation with the sponsor banks (mostly public sector banks) and National Bank for Agriculture and Rural Development (NABARD) took a decision to amalgamate the RRBs. The process of amalgamation started in September, 2005 and continued upto March, 2008. 145 out of 196 RRBs amalgamated to form new 45 RRBs by March, 2007. Therefore, in this process, on 21.2.2007, 5 RRBs of West Bengal such as Mallabhum Gramin Bank, Gaur Gramin Bank, Murshidabad Gramin Bank, Nadia Gramin Bank and Sagar Gramin Bank amalgamated to form Bangiya Gramin Vikash Bank and 3 RRBs such as Howrah Gramin Bank, Bardhaman Gramin Bank and Mayurakshi Gramin Bank are amalgamated to form Paschim Banga Gramin Bank to improve the operational

viability, cost effectiveness, productivity per staffs, the number of branches and the economies of scale.

Therefore, RRBs that has a rural focus, on the other side commercial banks are operating with commercial orientation. The study highlights two set of factors that has a bearing on performance of RRBs those are internal and external factors. Internal factors emerges from Balance Sheet and Profit and Loss Account of the bank that are often termed as bank specific determinants of profitability whereas external determinants are economic forces which conditions the operations and performance of financial institutions (Haslem, 1968). The economic forces can be inflation, interest rates, cyclical output and variables that represent market characteristics such as market concentration, industry size and ownership status. The main reason behind merger or amalgamation of RRBs is low earning capacity, restricted operations to target group, large number of defaulters, increased cost of operations due increase in the salary structure of the employees in line with the salary structure of the employees of commercial banks, following same methods of operations and procedures as followed by commercial banks which were not suitable for rural masses, improper location of banks, opening and running of bank branches by sponsor banks of RRBs in the same location where RRBs are operating (Misra, 2006). Therefore, the performance of RRBs in the last two decades showed lack of commercial orientation and an appropriate restructuring strategy was required to identify problems leading to non satisfactory performance of RRBs. In this study, 9RRBs of West Bengal in pre-merger period and 3RRBs in post-merger period are taken into consideration and the entire period is divided into 7yrs pre-merger and 8yrs post-merger to highlight the effect of independent variables on dependent variable i.e., Net Income of RRBs.

Objectives of the study

The theme of the paper is to understand the inter-relation between the dependent variable and independent variables and how significantly the independent variables are affecting dependent variable in the pre-merger and post-merger period. The main objective of the paper is to highlight the relationship between dependent and independent variables in the context of RRBs of West Bengal in the pre and post merger period and to show whether the restructuring strategies overcome the problem leading to non satisfactory performance of RRBs.

Data Analysis and Methodology

The study employs secondary data. Data are collected from the annual report of the RRBs of West Bengal. To estimate the relationship between the dependent and independent variables and to show how significantly the independent variables are explaining the dependent variable, the study has resorted to econometric modelling. The entire study is divided into two parts pre-amalgamation and post amalgamation. In the pre- amalgamation study we have 9 RRBs based on 7 years (1999-00 to 2005-06) which means we have 63 observations and in the post amalgamation we have 3RRBs based on 8yrs (2006-07 to 2013-14) which means we have 24 observations.

This study has used Panel Data Regression to investigate the impact of various internal factors on the performance of RRBs judged by its profitability.

Net income as a percentage to total assets is taken to be the indicator of financial performance of the RRBs. It shows the role of RRBs in using the total assets profitably and efficiently. The performance of RRBs depends upon two factors internal as well as external. The internal information is arising from the balance sheet of RRBs especially from lending and investment. Lending and investment are the two most important sources of information of the RRBs. Therefore, loans and advances to total assets of each RRB (LOTA) and investments to total assets of each RRB (INTA) are taken as the explanatory variable. In terms of liquidity management, banks are trying constantly to convert their short term deposits into long term credits and in doing so they are facing problem such as liquidity mismatch. Banks often hold liquid assets to minimise the insolvency problems and to hedge against liquidity deficits. The impact of liquidity on profitability of the bank is assessed by taking liquidity as a proportion of total assets (LIQ). Liquidity comprises of cash and bank balance with RBI and balance with bank and money at call and short notice. Apart from all these internal factors, another most important factor has been taken that is the effect of the sponsor banks on the RRBs which can be termed as the *umbilical cord*. Each RRB has their sponsor banks. The attitude of the sponsor banks will have an effect on the RRBs. Therefore, the net income of the sponsor banks as a percentage of its total assets (NITASPON) has been included as one of the regressors. Based on the above discussion, to ascertain the impact of the factors on bank profitability, panel data regression models have been used. Therefore, Net Income to Total Assets (NITA) is the dependent variable and Loans and Advances to Total Assets (LOTA), Investments to Total Assets (INTA) and Liquidity to Total Assets (LIQ) are the independent or explanatory variables. The equation given below describes the general specification of the model.

$$NITA_{i,t} = n1LOTA_{i,t} + n2INTA_{i,t} + n3LIQ_{i,t} + n4NITASPON_{i,t} + \epsilon_{i,t}$$

Where, n1, n2, n3, n4 are the parameters to be estimated

LOTA= Loans as a percentage of Total Assets

INTA= Investments as a percentage of Total Assets

LIQ= Liquidity as a percentage of Total Assets

NITASPON= Net Income of Sponsor Banks as a percentage of Total Assets

$\epsilon_{i,t}$ = Error term.

The subscripts i and t refer to the year and cross-section (RRB) respectively.

In addition to the above factors, there is another factor which may affect the costs and revenue of RRBs and that is the inflationary condition of the economy. Inflation can be anticipated or non anticipated (Misra, 2006). If the inflation is fully anticipated and the interest rates are adjusted accordingly which results into increased revenue that has a positive impact on bank profitability. If the inflation is not fully adjusted and at the same time banks are sluggish in adjusting the interest rates then there is a high possibility of increased costs than revenue which will adversely affect the bank profitability. In the above equation as all the variables are expressed in ratios therefore, inflation is already accounted for in the above model. However, inflation as a separate regression variable has not been taken into consideration.

Table 1: List of Variables

<i>Variables</i>	<i>Definition</i>
<i>Independent Variables</i>	
Loans and advances	Loans to agriculture and allied activities, micro and small enterprises, other priority sector, non-priority sector, scheduled caste or tribe, micro-finance institutions, minorities.
Investments	Government securities, shares, debentures, bond and mutual fund.
Liquidity	Cash and balances with Reserve Bank of India, balances with banks and money at call and short notice
Net income of sponsor banks	Profit after tax of sponsor banks
<i>Dependent Variable</i>	
Net Income of Regional Rural Banks	Profit after tax of regional rural banks

Source: Compiled by the researchers

In order to examine the issue of multi-collinearity¹, we have computed variance inflation factor (VIF) values. VIFs are generally considered as bad if they exceed 5. In our model, the higher tolerance values (range from 0.215 to 0.911) and lower variance inflation factor values (range from 1.098 to 4.648) signify the likelihood of low multicollinearity among independent variables for individual banks before and after amalgamation is shown in the annexure.

To check for heteroskedasticity², which is a major problem in panel data analysis, we employed Breusch-Pagan-Godfrey test for heteroskedasticity. High chi-square value indicates the presence of heteroskedasticity. The results of Breusch –Pagan test indicate the presence of heteroskedasticity:

Ho: Residuals are not heteroskedastic.

H1: Heteroskedasticity.

We have found that the prob. values of Chi-square for all the banks before and after amalgamation are more than 5 percent which indicates an acceptance of null hypothesis (Ho) and a rejection of alternative hypothesis (H1).

The observed R-square and the prob. chi-square are shown in the annexure with respect to individual banks before and after amalgamation.

Pre-Amalgamation Study

Table 2: Hausman Test of acceptability of appropriate regression model

Variables	Fixed	Random	Diff.	S.E	Prob.
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¹ Annexure 1 provides multicollinearity test of individual banks in pre and post amalgamation period.

² Annexure 2 shows Breusch-Pagan-Godfrey test for heteroskedasticity of individual banks in pre and post amalgamation period.

Loans and Advances	.0666133	.0403452	.0262681	.0154508	
Investments	.1223889	.0453072	.0770817	.05379	
Liquidity	.1410071	.0644108	.0765963	.0432273	
Net Income of Sponsor Banks	.0056382	.0222944	-.0166561	.00627	
Prob. (Chi-square)					.1212

Source: Calculated by the researcher

Table 3: Random Effect Estimation Results

Variables	Coefficient	S.E	Z statistic	Prob.
Loans and Advances	.0403452	.0292254	1.38	0.167
Investments	.0453072**	.0197479	2.29	0.022
Liquidity	.0644108***	.023512	2.74	.006
Net Income of Sponsor Banks	.0222944	.021384	1.04	.297
Wald Chi-square	16.09			
Prob. (Chi-square)	0.0029			

Source: Calculated by the researcher

*denotes significant at 10% level, **denotes significant at 5% level and ***denotes significant at 1% level.

Table 4: Fixed Effect Regression Estimates

Variables	Coefficient	S.E	t statistic	Prob.
Loans and Advances	.0666133**	.0330583	2.02	.049
Investments	.1223889**	.0573005	2.14	.038
Liquidity	.1410071***	.0492078	2.87	.006
Net Income of Sponsor Banks	.0056382	.0222843	0.25	.801
F statistic	2.77			
Prob(F-statistic)	0.0374			

Source: Calculated by the researcher

*denotes significant at 10% level, **denotes significant at 5% level and ***denotes significant at 1% level.

For choosing the appropriate model Hausman Test is conducted as shown in Table 1 and a very high p-value obtained for Hausman Statistics indicates a preference for Random Effect Model over Fixed Effects. The Random Effect results as given in Table 2 indicate that investments contributed positively on the net income of RRBs. Investments are significant enough to explain the Net Income of RRBs at 5% level. Liquidity has also turned out to be a significant variable in affecting the performance of RRBs. Loans and advances and the health of sponsor banks turns out to be insignificant in having an impact on the performance of RRBs.

The Regional Rural Banks are guided by a common set of rules and regulations formed by The Government of India in consultation with Reserve Bank of India therefore, they have a common structural formation, same proportion of equity investment by Central Government, Sponsor banks and State Government for all the RRBs, common restructuring pattern, common policies are followed in terms of disbursing the loans and advances etc. Therefore, the RRBs are having a common mean value of the intercept over the period of 7yrs pre-amalgamation.

Post Amalgamation Study

Table 5: Random Effect Regression Estimates

Variables	Coefficient	S.E	Z statistic	Prob.
Loans and Advances	.0660177 ***	.0236881	2.79	0.005
Investments	.0209639	.0176803	1.19	0.236
Liquidity	.0338487*	.0189954	1.78	0.075
Net Income of Sponsor Banks	.0276363	.0362738	0.76	0.446
Wald Chi-square	17.71			
Prob. (Chi-square)	0.0014			

Source: Calculated by the researcher

*denotes significant at 10% level, **denotes significant at 5% level and ***denotes significant at 1% level.

The results of the random effect estimates as shown in Table 4 indicate that loans and advances contributed positively on the net income of RRBs. Liquidity is also contributing positively to explain the Net Income of RRBs at 10% level. Investments and the health of sponsor banks turn out to be insignificant in having an impact on the performance of RRBs.

Table 6: Fixed Effect Regression Estimates

Variables	Coefficient	S.E	t statistic	Prob.
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Loans and Advances	.0666717	.0402888	1.65	0.116
Investments	.0248225	.019908	1.25	0.229
Liquidity	.0433797*	.0233465	1.86	0.081
Net Income of Sponsor Banks	0374732	.0404455	0.93	0.367
F statistic	1.29			
Prob(F-statistic)	0.3115			

Source: Calculated by the researcher

*denotes significant at 10% level, **denotes significant at 5% level and ***denotes significant at 1% level.

None of the explanatory variables are contributing positively as highlighted in Table 5 in explaining the performance of RRBs except liquidity which is statistically not much significant. The preference for Random or Fixed cannot be estimated through Hausman Specification Test as our model can only explain 24 observations in the post amalgamation period. It is one of the limitations of our study as our data is limited only up to 2014.

Concluding Remarks

Amalgamation took place in West Bengal in the year 2007 due to heavy operational expenses, increased costs due to high amount of salary to employees at par with commercial banks, high recovery costs of loans and advances, greater amount of non-performing assets etc. Out of 9RRBs of West Bengal, Mayurakshi Gramin Bank sustained losses consistently for 2000, 2003, 2004, 2005 and 2006, Gaur Gramin Bank for 2000 and 2004 and Sagar Gramin Bank sustained loss for 2006. Not only that the amount of profit for the rest RRBs were also in a decreasing pace in the pre-amalgamation period which ultimately led to the amalgamation of RRBs. The study has evaluated the influence of various factors on the performance of RRBs. Investments and liquidity has a significant influence on the performance of RRBs whereas loans and advances and net income of sponsor banks are not significantly explaining the performance of RRBs. Investments mainly consist of investing in government securities and debentures and bonds whereas liquidity is all about cash in hand, balance with RBI, balance with bank and money at call and short notice. One of the greatest reasons for that is high percentage of non-performing assets, lesser recovery of loans and advances, failure to adequately integrate with the financial markets of the country due to heavy dependence on sponsor banks for financial or business initiatives. RRBs have suffered at the ground level wherever there has been a conflict of business interests between the RRBs and sponsor banks. Due to the presence of sponsor banks in the same area of operation, RRBs are sometimes perceived as potential competitors. In the post amalgamation period, the RRBs are working better in terms of recovery of loans and advances, their NPA position has also improved. One of the possible reasons for greater recovery is low disbursement of farm credit due to amalgamation and capital adequacy limitations. The present status of RRBs in 2014 is given below:

As per newspaper reports 2014, GOI has conveyed to the sponsor banks that no fresh proposal of amalgamation of RRBs should be taken up at present. Therefore, at present the focus for RRBs will be on improving the performance that includes the profitability. GOI is making various efforts to improve the performance of RRBs by infusing fresh capital, by allowing RRBs to lend commercial projects, consortium finance, foreign currency, insurance business on referral basis. In 2014, 9RRBs had recovery of more than 90 percent, 19RRBs had recovery of 80 to 90 percent, 28RRBs had recovery between 60 to 80 percent and 1 RRB had recovery of less than 60 percent. Percentage of Gross NPA has also declined to 4.4 percent in 2014 from 6 percent in 2013.

Instead of what stated above, there is still an urgency to improve the efficiency and performance of RRBs in West Bengal so that proper policy could be facilitated by the policy makers from time to time for the upliftment of the economy as a whole.

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Annexure 1: Test of Multicollinearity in Pre and Post Amalgamation Period

Table 7: Test of Multicollinearity of Uttarbanga Kshatriya Gramin Bank (UBKGB) for the year 2007-2015

Variables	Tolerance	VIF
Loans and Advances	.349	2.867
Investments	.382	2.620
Liquidity	.638	1.567
Net income of Sponsor Banks	.359	2.786

Source: Calculated by the researcher

Table 8: Test of Multicollinearity of Bangiya Gramin Vikash Bank (BGVB) for the year 2007-2015

Variables	Tolerance	VIF
Loans and Advances	.608	1.842
Investments	.302	3.527
Liquidity	.403	2.106
Net income of Sponsor Banks	.317	3.234

Source: Calculated by the researcher

Table 9: Test of Multicollinearity of Paschim Banga Gramin Bank (PBGB) for the year 2007-2015

Variables	Tolerance	VIF
Loans and Advances	.321	3.143
Investments	.302	3.527
Liquidity	.403	2.106
Net income of Sponsor Banks	.743	1.346

Source: Calculated by the researcher

Pre-Amalgamation

Table 10: Test of Multicollinearity of Howrah Gramin Bank for the year 2000-2006

Variables	Tolerance	VIF
Loans and Advances	.252	3.963
Investments	.444	1.838
Liquidity	.323	3.212
Net income of Sponsor Banks	.911	1.098

Source: Calculated by the researcher

Table 11: Test of Multicollinearity of Mallabhum Gramin Bank for the year 2000-2006

Variables	Tolerance	VIF
Loans and Advances	.302	3.527
Investments	.404	2.111
Liquidity	.301	3.601
Net income of Sponsor Banks	.823	1.215

Source: Calculated by the researcher

Table 12: Test of Multicollinearity of Bardhaman Gramin Bank for the year 2000-2006

Variables	Tolerance	VIF
Loans and Advances	.327	2.923
Investments	.325	3.101
Liquidity	.317	3.234
Net income of Sponsor Banks	.709	1.410

Source: Calculated by the researcher

Table 13: Test of Multicollinearity of Gaur Gramin Bank for the year 2000-2006

Variables	Tolerance	VIF
Loans and Advances	.407	2.102
Investments	.333	3.091

Liquidity	.312	3.539
Net income of Sponsor Banks	.256	3.900

Source: Calculated by the researcher

Table 14: Test of Multicollinearity of Mayurakshi Bank for the year 2000-2006

Variables	Tolerance	VIF
Loans and Advances	.451	1.984
Investments	.407	2.102
Liquidity	.311	3.585
Net income of Sponsor Banks	.584	1.713

Source: Calculated by the researcher

Table 15: Test of Multicollinearity of Nadia Gramin Bank for the year 2000-2006

Variables	Tolerance	VIF
Loans and Advances	.215	4.648
Investments	.227	4.232
Liquidity	.228	4.191
Net income of Sponsor Banks	.550	1.819

Source: Calculated by the researcher

Table 16: Test of Multicollinearity of Sagar Bank for the year 2000-2006

Variables	Tolerance	VIF
Loans and Advances	.711	1.407
Investments	.323	3.212
Liquidity	.325	3.101
Net income of Sponsor Banks	.829	1.206

Source: Calculated by the researcher

Table 17: Test of Multicollinearity of Uttarbanga Kshatriya Gramin Bank (UBKGB) for the year 2000-2006

Variables	Tolerance	VIF
Loans and Advances	.221	4.520
Investments	.289	3.745
Liquidity	.306	3.485
Net income of Sponsor Banks	.735	1.360

Source: Calculated by the researcher

Table 18: Test of Multicollinearity of Murshidabad Bank for the year 2000-2006

Variables	Tolerance	VIF
Loans and Advances	.257	3.885
Investments	.290	4.167
Liquidity	.290	4.154
Net income of Sponsor Banks	.296	3.378

Source: Calculated by the researcher

Annexure 2: Breusch-Pagan-Godfrey Test of heteroskedasticity in Pre and Post Amalgamation Period

Table 19: Breusch-Pagan-Godfrey Test of Uttarbanga Kshatriya Gramin Bank (UBKGB) for the period 2007-15

Observed R-square	4.58424
Prob.Chi-square	0.3327

Source: Calculated by the researcher

Table 20: Breusch-Pagan-Godfrey Test of Bangiya Gramin Vikash Bank (BGVB) for the period 2007-15

Observed R-square	7.275064
Prob.Chi-square	0.1220

Source: Calculated by the researcher

Table 21: Breusch-Pagan-Godfrey Test of Paschim Banga Gramin Bank (PBGB) for the period 2007-15

Observed R-square	8.74111
Prob.Chi-square	0.089

Source: Calculated by the researcher

Pre-Amalgamation

Table 22: Breusch-Pagan-Godfrey Test of Uttarbanga Kshatriya Gramin Bank (UBKGB) for the period 2000-06

Observed R-square	6.064867
Prob.Chi-square	0.1944

Source: Calculated by the researcher

Table 23: Breusch-Pagan-Godfrey Test of Nadia Gramin Bank for the period 2000-06

Observed R-square	7.815749
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Prob.Chi-square	0.0943
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Source: Calculated by the researcher

Table 24: Breusch-Pagan-Godfrey Test of Murshidabad Gramin Bank for the period 2000-06

Observed R-square	6.273182
Prob.Chi-square	0.1797

Source: Calculated by the researcher

Table 25: Breusch-Pagan-Godfrey Test of Mallabhum Gramin Bank for the period 2000-06

Observed R-square	4.023970
Prob.Chi-square	0.4028

Source: Calculated by the researcher

Table 26: Breusch-Pagan-Godfrey Test of Howrah Gramin Bank for the period 2000-06

Observed R-square	3.825868
Prob.Chi-square	0.4301

Source: Calculated by the researcher

Table 27: Breusch-Pagan-Godfrey Test of Mayurakshi Gramin Bank for the period 2000-06

Observed R-square	3.048499
Prob.Chi-square	0.4987

Source: Calculated by the researcher

Table 28: Breusch-Pagan-Godfrey Test of Gaur Gramin Bank for the period 2000-06

Observed R-square	6.635540
Prob.Chi-square	0.1564

Source: Calculated by the researcher

Table 29: Breusch-Pagan-Godfrey Test of Sagar Gramin Bank for the period 2000-06

Observed R-square	4.172969
Prob.Chi-square	0.3831

Source: Calculated by the researcher

Table 30: Breusch-Pagan-Godfrey Test of Bardhaman Gramin Bank for the period 2000-06

Observed R-square	5.291855
Prob.Chi-square	0.2586

Source: Calculated by the researcher