

# Multivariate Analysis of Growth Variables of Agricultural Development Banks in Punjab

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**ABSTRACT-** The Punjab State Co-operative agricultural and rural development bank is playing an important role in meeting long-term credit requirement of rural population in the state. In this paper an attempt has been made to estimate the impact of selected variables on ADBs' advances for the period of 1999-00 to 2012-13. The underlying objective is to test empirically the selected variables, which have significantly contributed towards ADBs' loans in either direction at 1% and 5% percent level of significance. It is done in two sections, firstly for Punjab State Cooperative Agricultural Development Bank and secondly for its member banks i.e. Primary Cooperative Agricultural Development Banks on the basis of selected variables.. In PSCADB the loans and advances and all other variables are not correlated with profits. The matrix indicates that all variables are positively correlated with each other except number of employees. The regression coefficient explains that one unit increase in owned funds will increase the loans and advances. In PADBs, the matrix indicates that all variables are positively correlated with each other except number of employees. Membership is not correlated with loans and advances. The regression coefficient explains that one unit increase in borrowings will increase the loans and advances.

**KEYWORDS-** Analysis, Impact, PADBs, PSCADB, Significance

## I. INTRODUCTION

Agriculture in India is largely dependent on monsoons but still certain other inputs are required for its growth that are irrigation facilities, fertilizers, pesticides, seeds etc. For acquiring the essential inputs and for financing the various farm sector and non-farm sector activities credit is vital input. Thus, the role of credit in the agricultural economy is essential. Agriculture credit is required for various purposes. Agriculture credit can be classified on the basis of period, purpose, security, creditor and borrower. However, the term or period of the loan is the most common means of describing the agriculture credit [18]. On the basis of the term period of the loan, agriculture credit is broadly categorized into three categories viz., short-term, medium-term and long-term credit.

The requirement of long-term finance of the agriculturists for the purchase of agricultural machinery and for

permanent improvements on land cannot be fulfilled by the commercial banks and co-operative banks because these institutions obtain most of their funds in the shape of short-term deposits. Therefore, the necessity has arisen for the establishment of the institutions with the object of providing long-term credit to agriculturists at moderate rates of interest and providing for the repayment of loans in easy installments spread over a number of years. These institutions are called Land Development Banks. The Land Development Banks have developed a special technique for conducting their business. They obtain their funds by the issue of long dated debentures sometimes-carrying State Government guarantee with regard to payment of interest and repayment of principal. Thus, they are able to lend their money for long periods to agriculturists.

Cooperatives occupy an important position in the Indian financial system. The cooperatives were the first formal institutions that were set up to provide rural credit in India. It was in the year 1895 that the Nicholson discussed the role of cooperative agricultural and rural development banks in financing the rural sector especially the agricultural sector in India. The major changes in the system took place only after the introduction of cooperative movement in 1904 with the enactment of the Cooperative Societies Act 1904 [4]. In India, the rural co-operative banking sector plays an important role in providing credit to agriculture sector. The structure of the rural co-operative banking sector in India is two fold i.e. short-term and long-term rural co-operative banking. The long-term co-operative credit institutions have, generally, a two tier structure comprising the State co-operative agriculture and rural development banks at the state level and primary agricultural and rural development banks at district or block level. However, the structure of rural co-operatives is not uniform over the country. Some States have a unitary structure with the State level banks operating through their own branches, while others have a mixed structure incorporating both unitary and federal systems [15]. The States which do not have Co-operative Agricultural and Rural Development Banks are served by State Co-operative Banks [16]. Out of 20 SCARDBs eight have unitary structure with branches, 10 SCARDBs have federal structure with PCARDBs, and their branches and remaining two SCARDBs have mixed structure and in northern-eastern region only three States (Assam, Manipur and Tripura) are served by the long-term structure. In the

States not served by the long-term structure, separate sections of the StCBs look after long-term credit needs [17].

## II. CO-OPERATIVE BANKING IN PUNJAB

The Punjab State Cooperative Agricultural Development Bank Limited was established on 26/02/1958 under the provisions of Punjab Cooperative Land Mortgage Banks Act, 1957. The basic objective of the bank was to eliminate exploitations of the farmers by the money-lenders, by providing the farmers long-term loans at cheaper rates of interest, repayable in easy installments for redemption of mortgages. Over the period, the bank introduced many schemes and diversified its lending operations. The long-term structure in the Punjab state, as such, is a federal structure having State Cooperative Agricultural Development Bank as an apex institution with Primary Cooperative Agricultural Development Bank as its members. As on 31st March, 2014, there were 89 PADB. The functioning of the head office of the bank is run through different branches. For the purpose of close supervision of the PADB, the bank has 19 district offices at district headquarters, which are supervised by the assistant general managers and 3 regional offices, at Jalandhar, Ferozpur and Patiala by regional officers[1].

The sources of funds of the PSCADB consist of shares, debentures, grants, subsidies, fees, deposits, loan from govt. and Reserve Bank of India, and the other sources as are approved by the Registrar, Cooperative Societies viz., cash credit from Punjab State Cooperative Bank and NABARD etc. However, the main source of raising funds with the banks is by way of floatation of debentures under the refinance facilities of NABARD. The PADB advance loans to their members against the security of simple mortgage of agricultural land. The loans so advanced by the PADB are reimbursed by Punjab State Cooperative Bank against the security of these mortgage deeds. The Punjab State Cooperative Bank in turn floats debentures against these mortgages and gets refinance from NABARD. As such the cycle of collecting funds and making advancements continues. The debentures are floated under the provisions of Punjab Co-operative Land Mortgage Banks Act, 1957 with approval of the Registrar, Cooperative Societies, Punjab, who is the trustee for the fulfillment of the obligations to the debenture holders of the of State cooperative Bank under Section 3 of the act. To decrease its dependence on NABARD for its resources, the bank has introduced deposit mobilization scheme for collecting deposits from individuals and institutions. The bank at present accepts fixed and recurring deposits from public and institutions[5].

Initially, the bank started advancing loans for the redemption of land and for purchase of land so as to make land holdings economically viable. After sometime, the bank also started providing loans for the improvement of banjar, alkaline and saline lands. Thereafter, the Bank played a substantial role in the mechanization of farming in the state by advancing loans for the purchase of tractors, agricultural implements and installation of tubewells etc. The bank made significant contribution in the green, white

and blue revolutions in the state. The Bank is also playing a vital role in elimination of unemployment in the State by providing self-employment to the educated unemployed youth. In 1993-94, the Bank switched over to Non-Farm Sector (NFS) and started financing ventures of self-employment in manufacturing, processing and service activities with the objective of generating self-employment and business expansion/diversification[2].

## III. REVIEW OF LITERATURE

Pathnaik and Prasad [13] examined the factors affecting the demand for and supply of long term credit in India. The study was based on secondary data mainly from the statistical statements relating to the Cooperative Movement in India. Multiple regression models of various possible combinations of variables, assuming linear function were taken. The study concluded that demand for long term credit was influenced 4 per cent by gross cropped area (X2), 19 per cent by net irrigated area (X1) and the debentures (X5) influenced 9 per cent on supply of long-term loans. Increase in sinking funds investments (X6) resulted in 9 to 4 per cent reduction in supply of long-term credit. It also proved that in agriculturally advanced area the demand for short and medium term loans was less. There was no significant direct relationship between the agriculturally advanced or backward areas and long-term loans.

Jain and Mishra [10] examined the disbursement, impact and cost benefit analysis of loans provided by a Cooperative Land Development Bank in Madhya Pradesh. The study assessed the proposed and actual coverage in terms of loan disbursement. The study analysed the repayment of loans in relation to the purpose of loans, period of loan advanced and examined the economic effect on the farmer borrowers on the basis of case studies of 20 farmers. Thus, the study was based on both primary and secondary data. Loans were disbursed in a manner that 55 per cent went for buying tractors, 13 per cent for sinking of wells, and rest of the percentage for pump sets i.e. largest amount was sanctioned for farm machinery. Kind component was highest at 80 per cent of total loan for agriculture machinery for sinking of wells and pumps and the cash component was 20 per cent. The farmers had improved their cropping intensity and their net income. The repayments of term loan were scheduled after nearly 10 years for many farmers who were not able to pay because of natural and social-economic factors.

Ram [14] examined the selected growth indicators like membership, paid up capital, borrowings and factors influencing the profits of Primary Cooperative Agricultural Development Bank Bapatla, Guntur District Andhra Pradesh by using index analysis, compound growth rates and multiple regression analysis. The required data was collected from records maintained by the bank. All these indicators had increased significantly over the period and witnessed a positive trend. However growth of loans outstanding is dangerous. Overall, the progress of PCADB has been encouraging the past 20 year except 1-2 years of poor performance, but the bank was under losses in recent

times for this bank had to increase work force, efficiency of employees and bring down the cost of establishment. Gowthaman and Lakshmanan [8] revealed the performance of Urban Cooperative Bank in NAMAKKAL by using secondary data based on audited & annual reports of the bank by covering a period of seven years from 1999-2000 to 2005-06 . The study analysed the selected variables out of which membership, share capital, net profit had continuous increasing trends and deposits, loans and advance had fluctuating trends during the entire study period. The bank could predict its results for 2010 with the help of trend values for each variable.

#### IV. OBJECTIVES, SCOPE AND METHODOLOGY OF THE STUDY

The main objective of study is to estimate the impact of selected variables on ADBs' loans and advances. The underlying objective is to test empirically the selected variables, which have significantly contributed towards ABDs' loans in either direction.

In this paper an attempt has been made to calculate multivariate correlation and regression of growth performance indicators of agricultural development banks by taking loans outstanding as dependent variable and other selected variables as independent variables. It is done in two sections, firstly for Punjab State Cooperative Agricultural Development Bank on the basis of selected variables like number of PADBs, Share Capital, Owned Funds, Borrowings, Loans Outstanding, Deposits, Investments, Employees, Volume of Business and Working Funds and secondly for its member banks i.e. Primary Cooperative Agricultural Development Banks on the basis of selected variables like numbership, Share Capital, Owned Funds, Borrowings, Loans Outstanding, Investments, Employees, and Working Funds. Multiple correlation and step-wise multiple regression has been calculated at 1% and 5% percent level of significance[3].

#### V. MULTIPLE CORRELATION

In order to determine the nature and strength of relationship between two variables, the co-efficient of correlation has been applied. It is a statistical tool used to describe the degree to which one variable is linearly related to another. The co-efficient of correlation is applied to find out the relationship between two variables. If there are only two variables, then the model is known as simple correlation. If multiple variables are used to explain the correlation among them, it is called bi-variate correlation model[11]. In partial correlation we measure the degree of relationship between a dependent variable and one of the independent variables  $X_1, X_2, X_3, X_4, \dots, X_N$  with the effects of all the other variables removed [7].

#### A. Step-wise Multiple Regression

Regression analysis has been applied to study the relationship of independent variable with dependent variable. If there is only one dependent variable and one independent variable used to explain the variation in a dependent variable, then the model is known as simple regression. If multiple independent variables are used to explain the variation in a dependent variable, it is called multiple regression model [6]. The following regression equation has been used for this purpose:

$$Y = a + b_1x_1 + b_2x_2 + \dots + b_nx_n + \mu$$

where

Y = Level of satisfaction

a = a constant term

$x_1$  to  $x_n$  = independent variables

$b_1$  to  $b_n$  = regression coefficients of independent variables

When all the independent variables are not of equal importance and the correlation among the independent variables is strong then step-wise multiple regression method has been frequently used. The method begins by entering into the model the variable that has the strongest positive or negative correlation with the dependent variable and at each subsequent step at the variable with the strongest correlation is entered. Thus at each step the variables are tested for removal[12].

#### VI. ANALYSIS OF AGRICULTURAL DEVELOPMENT BANKS IN PUNJAB

The growth of Agricultural Development Banks in Punjab and reviews the performance of banks in two sections, growth of Punjab State Cooperative Agricultural Development Bank and Primary Cooperative Agricultural Development Banks. The Agricultural Development Banks are banks of long-term finance to rural people at Taluka level. The PADBs advances loans to their members against the security of simple mortgage of agricultural land. The loans so advanced by the PADBs are reimbursed by PSCADB against these mortgage deeds and in turn PSCADB borrow money in the form of debentures/loans from NABARD, State Government and Government of India.

The multivariate analysis of growth variables of Punjab State Co-operative Agricultural Development Bank has been calculated by taking loans outstanding as dependent variable and others as independent variable. This has been done by calculating multiple correlation and step-wise multiple regression.

#### VII. CORRELATION MATRIX OF LOANS OUTSTANDING AND OTHER VARIABLES (PSCADB)

The multiple correlation among growth variables of Punjab State Co-operative Agricultural Development Bank has been calculated by taking loans outstanding as dependent variable and others as independent variable. The table 1 shows the correlation matrix for Punjab State Co-operative Agricultural Development Bank.

Table 1: Correlation Matrix  
Loans and Advances and Other Variables of SCADB in Punjab

Variables	Loans and advances	Number	Share Capital	Owned Funds	Borrowings	Deposits	Investments	Working Funds	Employees	Profits
Loans and advances (Y)	1									
Number (X1)	.839**	1								
Share Capital (X2)	.911**	.960**	1							
Own funds (X3)	.958**	.894**	.939**	1						
Borrowing (X4)	.911**	.873**	.901**	.963**	1					
Deposits (X5)	.703**	.602*	.719**	.818**	.826**	1				
Investments (X6)	.634*	.687**	.685**	.769**	.812**	.797**	1			
Working Funds (X7)	.910**	.851**	.905**	.974**	.990**	.891**	.826**	1		
Employees (X8)	-.646*	-.708**	-.648*	-.775**	-.757**	-.649*	-.822**	-.758**	1	
Profits (X9)	.184	.158	.192	.071	.100	-.188	-.190	.044	.336	1

\*\* .Significant at 1% level of significance

\* .Significant at 5% level of significance

The loans are taken as dependent variable (Y1) and other variables are taken as independent variables i.e. number of PADB (X1), share capital (X2), owned funds (X3), borrowings (X4), deposits (X5), investments (X6), working funds (X7), employees (X8) and profits (X9). The loans and advances of the bank are highly correlated with owned funds (0.958\*\*), followed by borrowings (0.911\*\*), share capital (0.911\*\*), working funds (0.910\*\*), number of PADB (0.839\*\*), deposits (0.703\*\*) at 1 per cent level of significance and investments (0.634\*) at 5 per cent level of significance. Number of employees are negatively correlated with loans and advances i.e. (-0.646\*) at 5 per cent level of significance and with all the variables also. The loans and advances and all other variables are not correlated with profits. The number of PADB highly correlated with share capital followed by owned funds,

borrowings, working funds, investments and deposits. The share capital is highly correlated with owned funds followed by working funds borrowings, deposits and investments. The owned funds are highly correlated with borrowings, working funds and deposits. Borrowings are highly correlated with working funds followed by deposits and investments etc. On the whole the matrix indicates that all variables are positively correlated with each other except number of employees.

#### A. Step-Wise Multiple Regression

Table 2 shows the step-wise regression of Punjab State Cooperative Agricultural Development Bank. Model-I makes it clear that the owned funds explain 91.1 per cent variation in the loans and advances and it is significant at 1 per cent level of significance. The regression coefficient explains that one unit increase in owned funds will increase the loans and advances by 2.822 units.

Table 2: Step-Wise Multiple Regression  
Loans and Advances and Other Variables of SCADB in Punjab

Model	Variables	Intercept	T-value	Coefficient of Regression	T- value	R-square	Adjusted R	F-value
I	Owned Funds	813.625	8.739**	2.822	11.591**	0.918	0.911	134.353**
II	Owned Funds	738.655	8.501**	3.395	10.323**	0.934	0.934	92.806**
	Investments			-0.484	-2.263*			

\*\*Significant at 1% level of significance  
\*Significant at 5% level of significance

Model-II shows that the owned funds and investments explained 93.4 per cent variation in the loans and advances taken together and it is significant at 1 per cent level of significance. Rest 6.4 per cent variation is explained by other factors. Thus coefficient of regression explains that an increase in one unit of owned funds will increase the loans and advances by 3.395 units and one unit decrease in investments will decrease the loans and advances by 0.484 units. Owned funds, investments and loans and advances

are positively correlated, regression coefficient of investments is negative, which is due to multicollinearity. To solve the problem of multicollinearity we dropped variables one by one. Table 2(a) shows the regression results after dropping the variable 'owned funds' Model-I explains that the borrowings explain 81.6 per cent variation in the loans and advances and it was significant at 1 per cent level of significance. Rest 18.4 per cent variation is explained by other factors The regression coefficient explains that one unit increase in borrowings will increase the loans and advances by 0.964 units.

Table 2 (a): Step-Wise Multiple Regression  
Loans and Advances and Other Variables of SCADB in Punjab  
(Solution to Multicollinearity)

Model	Variables	Intercept	T-value	Coefficient of Regression	T- value	R-square	Adjusted R	F-value
I	Borrowings	2.645	0.992	0.964	7.665**	0.830	0.816	58.747**

\*\*Significant at 1% level of significance  
\*Significant at 5% level of significance

Step-2 of solving the multicollinearity problem involves dropping the variable investments, after dropping this variable we found that the results shows the 'owned funds', then by dropping any other variable, we found the same result as in step first. So we conclude that in PSCADB, owned funds influence the loans and advances. Thus, the

multivariate regression analysis for the period 1999-00 to 2012-13 concludes the following:

$$Y=2.645+0.964X3+E$$

Table 2(b) shows the regression results after dropping the variable 'investments'. Model-I makes it clear that the owned funds explain 91.1 per cent variation in the loans and advances and it is significant at 1 per cent level of significance. The regression coefficient explains that one unit increase in owned funds will increase the loans and advances by 2.822 units.

Table 2 (b): Step-Wise Multiple Regression  
Loans and Advances and Other Variables of SCADB in Punjab  
(Solution to Multicollinearity)

Model	Variables	Intercept	T-value	Coefficient of Regression	T- value	R-square	Adjusted R	F-value
I	Owned Funds	813.625	8.739**	2.822	11.591**	0.918	0.911	134.353**

\*\* .Significant at 1% level of significance  
 \* . Significant at 5% level of significance

Thus the final multivariate regression analysis for the period 1999-00 to 2012-13 concludes the following:  
 $Y = 813.625 + 2.822X4 + E$

This shows that owned funds have significant impact on loans and advances of Punjab State Co-operative Agricultural Development Bank .

**B. Analysis of PADB's**

The Punjab State Co-operative Agricultural Development Bank works through its member banks i.e. Primary Agricultural Development Banks (PADBs). PADBs are registered under Cooperative Societies Act, 1961. Presently whole of the state of Punjab is covered by a network of PADBs operating in their respective areas of operation. As such whenever need arises for opening of a new PADB, the new bank is created out of an existing PADB by bifurcating the area of operation of the existing PADB. The Primary Agricultural Development Banks are member banks of Punjab State Co-operative Agricultural Development Bank. They provide long-term loans to the borrowers at taluka level on mortgage of property that is reimbursed by PSCADB. At present, there are 89 PADBs in Punjab. The main objective of these banks is to provide long-term loans

to farmers at lower rates due to this, the loans have been taken as dependent variable[9].

The multivariate analysis of growth variables of Primary Co-operative Agricultural Development Bank has been calculated by taking loans outstanding as dependent variable and others as independent variable. This has been done by calculating multiple correlation and step-wise multiple regression.

**VIII. CORRELATION MATRIX OF LOANS AND ADVANCES AND OTHER VARIABLES (PADBs)**

The multiple correlation among growth variables of Primary Co-operative Agricultural Development Banks has been calculated by taking loans outstanding as dependent variable and others as independent variable. The table 3 shows the correlation matrix for Primary Co-operative Agricultural Development Banks in Punjab. The loans are taken as dependent variable (Y1) and other variables are taken as independent variables i.e. number of members (X1), share capital (X2), owned funds (X3), borrowings (X4), investments (X5), working funds (X6), employees (X7) and profits (X8). The loans and advances of the bank are highly correlated with borrowings (0.995\*\*), followed by working funds (0.984\*\*), share capital (0.942\*\*), owned funds (0.926\*\*) and investments (0.695\*\*) at 1 per cent level of significance.

Table 3: Correlation Matrix  
 Loans and Advances and Other Variables of PADBs in Punjab

Variables	Loans and advances	Number of Members	Share Capital	Owened Funds	Borrowings	Investments	Working Funds	Employees	Profits
Loans and advances (Y)	1								
Number of Members (X1)	.205	1							
Share Capital (X2)	.942**	.351	1						
Owened Funds (X3)	.926**	.291	.980**	1					
Borrowings (X4)	.995**	.215	.948**	.944**	1				
Investments (X5)	.695**	.333	.839**	.870**	.745**	1			
Working Funds (X6)	.984**	.240	.974**	.974**	.992**	.807**	1		
Employees (X7)	-.913**	-.186	-.925**	-.942**	-.936**	-.873**	-.957**	1	
Profits (X8)	.083	-.254	.201	.208	.099	.437	.162	-.377	1

\*\* .Significant at 1% level of significance  
 \* . Significant at 5% level of significance

Number of employees are negatively correlated with loans and advances i.e. (-913\*\*) at 1 per cent level of significance

and with all the variables. The loans and advances and all other variables are not correlated with profits. The matrix indicates that all variables are positively correlated with each other except number of employees. Membership is not correlated with loans and advances.

**C. Step-Wise Multiple Regression**

Table 4 shows the step-wise regression results for Primary Cooperative Agricultural Development Banks in Punjab. Model-I makes it clear that the borrowings explain 98.9 per cent variation in the loans and advances and it is significant at 1 per cent level of significance. The regression coefficient explains that one unit increase in borrowings will increase the loans and advances by 1.113 units. Model-II explains that the borrowings and investments explain 99.3 per cent variation in the loans and advances and it is significant at 1 per cent level of significance. Thus one unit increase in borrowings will increase the loans and advances by 1.200 units and one unit increase in investments will

decrease the loans and advances by 0.385 units. Model-III reveals that the borrowings, investments and share capital explains 99.6 per cent variation in the loans and advances and it is significant at 1 per cent level of significance. Thus one unit increase in borrowings and share capital will increase the loans and advances by 1.028 and 3.134 units respectively and one unit increase in investments will decrease the loans and advances by 5.175 units. Investments and loans and advances are positively correlated, but regression coefficient is negative, which was due to multicollinearity. To solve the problem of multicollinearity we dropped variables one by one.

Table 4: Step-Wise Multiple Regression  
Loans and Advances and Other Variables of PADBs in Punjab

Model	Variables	Intercept	T-value	Coefficient of Regression	T- value	R-square	Adjusted R	F-value
I	Borrowings	-87.632	-1.411	1.113	33.683**	0.990	0.989	1134.534**
II	Borrowings	-186.507	-3.244**	1.200	31.569**	0.994	0.993	969.681**
	Investments			-0.385	-3.068*			
III	Borrowings	-665.881	-4.193**	1.028	16.608**	0.997	0.996	1168.341**
	Investments			-0.618	-5.175**			
	Share Capital			6.409	3.134*			

\*\* Significant at 1% level of significance  
\* Significant at 5% level of significance

borrowings explain 98.9 per cent variation in the loans and advances and it is significant at 1 per cent level of significance. The regression coefficient explains that one unit increase in borrowings will increase the loans and advances by 1.113 units.

Table 5 shows the regression results after dropping the variable ‘investments’. Model-I explains that the

Table 5: Loans and Advances and Other Variables  
(Solution to Multicollinearity)

Model	Variables	Intercept	T-value	Coefficient of Regression	T- value	R-square	Adjusted R	F-value
I	Borrowings	-87.632	-1.411	1.113	33.683**	0.990	0.989	1134.534**

\*\* Significant at 1% level of significance  
\* Significant at 5% level of significance

Thus the final multivariate regression analysis for the period 1999-00 to 2012-13 concludes the following:

$$Y = -87.632 + 1.113X_4 + E$$

This shows that borrowings have significant impact on loans and advances of PADBs.

**IX. CONCLUSION**

The Punjab State Co-operative Agricultural Development Bank is a non profit organisation. Owned funds of the bank consist of share capital, reserves & surpluses and undistributed profits. The primary role of bank’s capital is

to act as a buffer. The PSCADB gives loans to its member PADBs and to become member of the bank, PADBs have to purchase bank’s shares. The PADBs advances loans to their members against the security of simple mortgage of agricultural land. The loans so advanced by the PADBs are reimbursed by PSCADB against these mortgage deeds and in turn PSCADB borrow money in the form of debentures/loans from NABARD, State Government and Government of India. In Punjab State Co-operative Agricultural Development Bank, the loans and advances and all other variables are not correlated with profits. The matrix indicates that all variables are positively correlated with each other except number of employees. The regression coefficient explains that one unit increase in owned funds will increase the loans and advances. In

Primary Agricultural Development Banks the loans and advances and all other variables are not correlated with profits. The matrix indicates that all variables are positively correlated with each other except number of employees. Membership is not correlated with loans and advances. The regression coefficient explains that one unit increase in borrowings will increase the loans and advances. From this it is concluded that Loans and advances of PSCADB are significantly correlated with owned funds and Loans and advances of PADBs are significantly correlated with borrowing.

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