



The Effect of Zarai Taraqiati Bank in Enhancing Farm Productivity through Agricultural Credit - A Case Study of District Lakki Marwat, KPK-Pakistan

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Abstract

This study was deliberate to observe the outcome and utilization of credit advanced by Zarai Taraqiati Bank Limited. To ensure the Socio-economic conditions of farmers in Lakki Marwat district, a total of 100 respondents were selected from purposively selected villages. The 100 respondents were divided into half and the 50 respondents were the beneficiaries of ZTBL and 50 respondents were the non-beneficiaries. To match up and evaluate the production and income of beneficiaries with non-beneficiaries an independent sample t-test was used. The results show that only (12%) of the beneficiaries respondents have utilized credit for the right purpose while the majority of them (i.e. 88%) have utilized credit for mixed purposes like for agriculture purpose, household expenditures, marriages and for reconciliation purposes. The results also specify that credit has no positive effect on production and income of the farmers in the area. However, those who utilized the credit for the desired purpose have better production and income than others. However this increase in production and income is not significant. The high interest rate, delay in credit disbursement and lengthy procedure of getting credit from the bank is one of the main problem.

Keywords: Bank, agriculture credit utilization, effect of credit on income and productivity.

Introduction

Pakistan is blessed with abundance of natural and human resources and agriculture has played a vital role in the Pakistan economy. Government of Pakistan (2011) affirmed that agriculture is the major contributor in the overall export earning and provides employment to 45 percent population of the country. Its contribution in GDP is 21 percent and 68% of the population is engaged in farming through production, processing and distribution of major agricultural commodities. Agriculture also provides momentum to economic growth of the country and credit availability to farming sector is one of the key factors that play a fundamental role in agriculture development of a country. To provide the credit to the needed farming community, government is being made effort through a well established infrastructure of banks which provide credit to the farming community for multi purposes¹. S.M. Zafar described that small farmers are facing severe problems in Pakistan and not easy for them to live and stay long with agriculture sector. They need credit for the purchase of agricultural inputs but only the large holders receive the major share of formal credit due to influence. Eventually the small farmers have no access and get no credit which having a negative effect on rural development and welfare. Due to high agricultural input prices the farmers are not in a position to save money and that's why small farmers borrow credit from other different sources². Hanif et al demonstrated the main purpose of providing credit to farmers is to increase in production and development in agriculture sector. Production loans were of

small amount and mostly for short time. It were specified for seeds, fertilizer, poultry, labor charges etc. while the development loans were of large amount and for long time. It were supplied for purchase of agriculture capital and equipments i.e. tractors, threshers, trolleys, installation of tube wells etc. To provide loan on easy approach, government made agricultural credit policies³.

Ahmad reported that small farmers always facing the financial problems and they are not be able to use high quality seeds, sufficient fertilizers and improved farm implements. So Lack of finance is one of the main reasons for low per acre productivity in our agriculture. To enhance agricultural productivity depends on the availability of finance and credit facilities to the farmers in their respective areas in time⁴. Iqbal et al found that the institutional agricultural credit in Pakistan has much positive impact on agricultural productivity and government practices the credit policy to protect the interest of farmers. They provide loans on easy terms to small and medium farmers to facilitate them in case of any emergency or natural disaster⁵. Khan et al observed that credit also plays a significant role in the sense of food security and creates opportunities for employment⁶. Abedullah et al described that for boosting agricultural output, advancing credit on cheap and easy way to farmers is much helpful. Ultimately it was the leading strategy of every successive governments of Pakistan to meet up the credit necessities of the farming community. As usual agriculture sector mostly depends on credit as compare to other sectors due to the changing trend and seasonal variation. Credit could also

play a best role in their living standards as it provides the opportunity to earn more money⁷. Olagunju indicated that credit is essential in agriculture sector for equipments, diversified agricultural output and competency in agricultural resource-use. The credit facilities would be helpful in increasing the production and welfare of the farming community⁸. Javed et al reported that micro credit revealed a positive and healthy impact on agricultural production⁹. Bashir and Azeem confirmed that the farmers should be helped both in terms of obtaining and returning credit so that they may be able to utilize it to enhance productivity¹⁰. Ahmed and Gill analyzed that if a farmer is not in a position to put the required inputs in the field how he can expect a bumper output. There are various avenues to backup the farmers in this context but Zarai Taraqiati Bank Limited is one of the main contributors to provide financial assistance in terms of credit to the farmers¹¹.

Lakki Marwat, a southern district of Khyber Pakhtunkhwa-Pakistan is predominantly a rain-fed area. Very little irrigation water is available for crops production. The geographical area of the district is 3,164 sq. kilometers and the main crops are wheat, gram, maize, sugarcane and vegetables. The people of the area in general and farmers in particular are mostly poor. ZTBL like other places in the country do provide credit to the farming community in district Lakki Marwat. However, research studies pertaining the farmer's requirements for credit, its availability and its effect on productivity are very scarce. Consequently, keeping in view the problem mentioned above, this study is initiated to fill these gaps.

Objectives of the Study: The key objectives of the study are: i. To examine the impact of agricultural credit on productivity and income of farmers in the study area. ii. To recognize the difficulty faced by farmers in getting agricultural credit. iii. To identify the credit utilization by sample respondents. iv. To recommend policy recommendation for the enhancement of maximum productivity through credit.

Material and Methods

This study was designed to evaluate the effect of agricultural credit on farmer's productivity and income provide by ZTBL at Tehsil Serai Naurang of district Lakki Marwat. The section 2.1 consist of the universe of the study followed by sampling and sample size in section 2.2 and section 2.3 and 2.4 highlight data collection and the analysis of data respectively.

Universe of the Study: This study was conducted in tehsil Serai Naurang of Lakki Marwat district (KPK) where ZTBL is one of the major provider of agricultural credit for rural farmers.

Sampling and Sample Size: The tehsil Serai Naurang consist of many villages but the two villages, Nar Sahib Khan and Baist Khel were especially selected, because in these villages most of the farmers have taken loans from ZTBL (ZTBL, 2011).

Table-1
Distribution of Sampled Household in the Study Area

Village	No. of Household	Sampled Household		All
		Beneficiaries	Non-Beneficiaries	
Nar Sahib Khan	125	30	30	60
Baist Khel	95	20	20	40
All	220	50	50	100

Source: ZTBL, Serai Naurang (Lakki Marwat)

Data Collection: First a comprehensive interview schedule was prepared and pre-tested so as to include all the relevant questions in it. Each respondent was interviewed personally and Information and data pertaining to all the relevant factors was collected. A list of beneficiaries of each village was obtained from Serai Naurang branch and then 50 beneficiaries of ZTBL were chosen by simple random sampling. To see the effect of ZTBL credit on agriculture productivity, equal number of non-beneficiaries was also taken from already selected villages. Thus, the 50 respondents were selected from beneficiaries and 50 from non-beneficiaries.

Analysis of Data: The collected data was analyzed with the help of suitable software. The sample data was analyzed through frequency distribution, cross tabulation, percentage, and average was performed and the following statistical techniques were used for the analysis of the data.

Independent t-Test: An independent t-test was applied to compare crop production and income of beneficiaries with non-beneficiaries by the following procedure outlined below.

I. The null and alternative hypothesis is

$$H_0 : \mu_1 = \mu_2$$

$$H_1 : \mu_1 \neq \mu_2$$

Where, μ_1 = variables means (production, income) of beneficiaries 2011. μ_2 = variables means (production, income) of non-beneficiaries 2011.

II. $\alpha = 0.05$

III. Given a sample from each of two populations with that is, with unequal variance, the null hypothesis can be tested by using the following t-statistic (Chaudhry, 1996 and Walpole, 1882).

$$t = \frac{(\bar{X}_1 - \bar{X}_2)}{\sqrt{\left(\frac{S_1^2}{n_1}\right) + \left(\frac{S_2^2}{n_2}\right)}}$$

Where $X_1 = \frac{\sum X_1}{n_1}$

$$X_2 = \frac{\sum X_2}{n_2}$$

$\bar{X}_1 =$ Mean value for beneficiaries

$\bar{X}_2 =$ Mean value for non-beneficiaries

n_1 and $n_2 =$ Sample size for beneficiaries and non-beneficiaries, and $S_1^2 =$ sub-sample variance.

The critical region consists of all the t-values which are greater than or equal to t-tabulated.

IV. If the computed value of t-statistics falls in the critical region, we will reject H_0 , the hypothesis of no difference between the two means.

Results and Discussion

The importance of credit is vital in the perspective of agriculture. This chapter outlines the ZTBL credit information, analysis and interpretation of the data. It includes problem faced by the sample respondent in the disbursement of loan, utilization of loan and the impact of loan on their socio-economic conditions.

Impact of ZTBL Credit on Crop Yield: Table-2 compares the yield mean of different crops of beneficiaries and non-beneficiaries. After using an independent sample t-test the figures in the Table show that crop yield for wheat realized by non-beneficiaries is higher than those who availed credit. The t-ratio also explains that the difference in yield between the two categories of farmers is significant for wheat and insignificant for maize. Thus, it can be inferred that credit has no effect on yield.

Table-2
Impact of ZTBL Credit on Crop Yield

Crops	Yield/kanal (Mounds)		t-ratio
	Ben (Mean)	N-Ben. (Mean)	
Wheat	2.76	3.19	2.829
Maize	1.05	1.16	0.873

Source: Survey data

Impact of ZTBL Credit on Cropped Area: Table-3 shows the effect of ZTBL credit on cropped area between beneficiary and non-beneficiary households. Table shows that the effect of ZTBL credit on wheat cropped area is positive while negative on maize cropped area. However the t-test shows that the impact is insignificant on both cropped area.

Table-3
Impact of ZTBL Credit on cropped Area

Crops	Area (kanal)	Ben	N-Ben	t-test
		(Mean)	(Mean)	
Wheat	2759	28.12	27.06	0.229
Maize	518	5.14	5.22	0.079

Source: Survey data

Impact of Credit on beneficiaries and non-beneficiaries

Income: Table-4 shows the income realized by the farmers. Agricultural Credit plays a significant role in the level of income but because of mis-utilization of the credit there is no change in income of the beneficiary farmers. This may be due to the reason that the farmers had not utilized their credit on the use of improved farm inputs and may have not got higher yield of crops. The t-test shows that the income levels of the beneficiary households were significantly less than non-beneficiary households. This shows that the loan advanced by ZTBL had no significant effect upon the income level of the farmers in the study area.

Table-4
Comparison of Income Level (Monthly) of the Sampled Respondents

Village	Income of Ben.H.H	Income of Non-B.H.H	t-test
Nar Sahib Khan	Rs. 2413.73	Rs. 2243.8	0.392
Baist Khel	Rs. 1819.05	Rs. 2099.85	1.0068
All	Rs. 2175.86	Rs. 2186.22	0.0365

Source: Survey data

Acquisition of Loan: Table-5 is presented the data regarding acquisition of different types of loan. Farmers obtain agricultural credit for different durations in the research area in order to fulfill their agricultural requirements. On the basis of duration, the agricultural loans can be divided into three categories like Short term, Medium term and Long term loans.

Table-5
Distribution of Respondents based on category of Loan

Tenurial Status	Types of Loan						No of Respondents
	Short term		Medium term		Long term		
	No	%	No	%	No	%	
Owner	19	42.22	17	37.77	9	20	45
O.C.T	5	100	-	-	-	-	5
Total	24	48	17	34	9	18	50

Source: Survey data

The Table reveals that most of the respondents (48%) have got short-term loan followed by medium term loan (34%) and long term loan (18%).

Utilization of Loan: It is generally said that agricultural loans sanctioned by ZTBL are not being properly utilized for agriculture purpose. For this purpose respondents were inquired about the utilization of loan. Table-6 reveals that majority of the respondents (88%) utilized agricultural loan for both agriculture and some for household expenditure, marriages and for reconciliation purposes, while rest of the respondents (12%) utilized the loans for the purpose it was sanctioned. Most credit was received by owners and owner-cum tenant but tenants had not got the credit.

Table-6
Utilization of Loan by Sampled Respondents

Tenurial Status	Utilization of Loan				No of Respondents
	Agriculture		Agriculture and Others		
	No	%age	No	%age	
Owner	6	13.33	39	86.66	45
O.C.T	-	-	5	100	5
Total	6	12	44	88	50

Source: Survey data

Problems faced by Sampled Respondents while getting the Loan: Table-7 shows the main frustrating factors of the credit obtained from ZTBL Majorities of the sampled respondents have reported that the credit disbursement procedure was tedious and complex. Majorities of the respondents (90%) reported that the interest rate of ZTBL is high. Another (56%) of respondents were having the complex process of obtaining the loan from ZTBL. While (26%) of respondents had faced time constraint problem. The remaining respondents (14%) reported that they have poor contact with ZTBL staff.

Table-7
Problems faced by Sampled Respondents while getting the Loan

Village	No. of respondents	Complex Process of obtaining loan	High Interest rate	Time constraint	Contact with ZTBL staff
Nar Sahib Khan	30	15	28	8	5
Baist Khel	20	13	17	5	2
Total	50	28	45	13	7
% age	-	56	90	26	14

Source: Survey data

Conclusion

The study concludes that Zarai Taraqati Bank Limited has not much good effect on the crop production and income of the respondents and this could be due to mis-utilization of credit. Due to water shortage, very small numbers of respondents have used credit for agriculture purposes. The proper use of credit by farmers to buy certified seeds, chemical fertilizers and modern agricultural machinery, may increase the yield. The beneficiaries had not applied the credit for the agriculture purposes and therefore the avail credit has no positive impact on income and productivity of the farmers in the particular area.

Recommendations: i. Procedure for gaining and revival of credit be made simple for the small farmers so that the majority of farmers can take advantage of this opportunity. ii. Since credit obtained was not utilized for the purpose taken, therefore to ensure proper utilization of the credit, regular supervision and monitoring is necessary. iii. Credit should be provided in kinds

as compare to cash and long terms loan should be made available to farmers and the bank shall establish linkages with the Agriculture extension and research departments so that all the relevant activities could be integrated. iv. The interest rate should be reduced and the repayment period should be expended in case of crop failure. v. To create awareness in farmers about credit facility and utilization, media can play a vital role and it should be used more successfully and effectively.

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