



GLOBAL JOURNAL OF SCIENCE FRONTIER RESEARCH: D  
AGRICULTURE AND VETERINARY  
Volume 16 Issue 2 Version 1.0 Year 2016  
Type : Double Blind Peer Reviewed International Research Journal  
Publisher: Global Journals Inc. (USA)  
Online ISSN: 2249-4626 & Print ISSN: 0975-5896

## Effect of Agricultural Credit Advanced by Zarai Taraqiati Bank Limited (ZTBL) on Crop Production in District Peshawar

By Ashfaq Ahmad Shah, Shakeel Ahmad, Nayab Ali & John Chrisostom Pesha  
*China Agriculture University, China*

**Abstract-** Pakistan's economy is agrarian in nature and character. Agricultural sector is the main source of income for majority of population in the country. Subsistence kind of cultivation hardly allows the farmers to use high quality seeds, sufficient amount of fertilizers and other improved farm techniques. Small farmers are generally characterized as having low income, less saving and low capital formation. Apparently, credit seems to be the dire need of these clusters of farming community. This research endeavors to analyze the effect of agricultural credit advance by Zarai Taraqiati Bank Ltd (ZTBL) on crop production in district Peshawar Khyber Pakhtunkhwa (KP) province. For this purpose a house hold level survey was conducted and primary data were collected from a sample of 113 randomly selected farmers in a village (Urmar Maina) of District Peshawar. There were 818 (402 male and 416 female) family members in all the house- holds. Farming was the main occupation of all the respondents, 51 (45%) had secondary occupation as well. most of the respondents utilized the loan for agriculture activities i.e. Purchase of improved seed, insecticides, fertilizer, machinery, Farm yard manure (FYM).

**Keywords:** *micro credit loan, crop production, ZTBL.*

**GJSFR-D Classification :** *FOR Code: 079999*



EFFECT OF AGRICULTURAL CREDIT ADVANCED BY ZARAI TARAQIATI BANK LIMITED ON CROP PRODUCTION IN DISTRICT PESHAWAR

*Strictly as per the compliance and regulations of :*



RESEARCH | DIVERSITY | ETHICS

© 2016. Ashfaq Ahmad Shah, Shakeel Ahmad, Nayab Ali & John Chrisostom Pesha. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 3.0 Unported License <http://creativecommons.org/licenses/by-nc/3.0/>, permitting all non commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

# Effect of Agricultural Credit Advanced by Zarai Taraqiati Bank Limited (ZTBL) on Crop Production in District Peshawar

Ashfaq Ahmad Shah <sup>α</sup>, Shakeel Ahmad <sup>σ</sup>, Nayab Ali <sup>ρ</sup> & John Chrisostom Pesha <sup>ω</sup>

**Abstract-** Pakistan's economy is agrarian in nature and character. Agricultural sector is the main source of income for majority of population in the country. Subsistence kind of cultivation hardly allows the farmers to use high quality seeds, sufficient amount of fertilizers and other improved farm techniques. Small farmers are generally characterized as having low income, less saving and low capital formation. Apparently, credit seems to be the dire need of these clusters of farming community. This research endeavors to analyze the effect of agricultural credit advance by Zarai Taraqiati Bank Ltd (ZTBL) on crop production in district Peshawar Khyber Pakhtunkhwa (KP) province. For this purpose a house hold level survey was conducted and primary data were collected from a sample of 113 randomly selected farmers in a village (Urmar Maina) of District Peshawar. There were 818 (402 male and 416 female) family members in all the households. Farming was the main occupation of all the respondents, 51(45%) had secondary occupation as well. Most of the respondents utilized the loan for agriculture activities i.e. Purchase of improved seed, insecticides, fertilizer, machinery, Farm yard manure (FYM).

The study results had shown that comparison of crop production before and after the micro credit loan. The study found a highly significant rise in the production of potato with increase in the yield/acre after getting micro credit loan from ZTBL, Tomato production increased (P=0.000), increased in Turnip (P=0.000) production, Ladyfinger (P=0.000), Wheat (P=0.000), Maize (P=0.000), Sugarcane (P=0.000), Peach (P=0.000) and Plum crops have shown amusingly increase i.e. P=0.000. For further effectiveness of the institutional loan it is important that interest rate charges on institutional credit should be reduced up to the extent that the farming community may utilize it easily, Procedure of advancing loan should be made simple, so that more farmers can be benefited and on time availability of credit should be ensured for timely purchase of the required inputs. In this way more and more farmers will be benefited from the credit advanced by Zarai Taraqiati Bank Limited ZTBL.

**Keywords:** micro credit loan, crop production, ZTBL.

**Author <sup>α</sup> <sup>ω</sup> :** PhD Scholar in Rural Development & Management, College of Humanities & Development (COHD) Studies China Agriculture University (CAU), No. 17 Qing Hua dong Lu, Haidian District, Beijing, P. R. China. e-mails: ahmad.ashfaq1986@gmail.com, johnpesha@yahoo.com

**Author <sup>σ</sup> <sup>ρ</sup> :** PhD Scholar in Rural Sociology, Department of Rural Sociology, Agricultural University, Peshawar-Pakistan. e-mails: shakeel.sociologist@gmail.com, nayabshah\_uom@yahoo.com

## I. INTRODUCTION

Agricultural output is low in developing countries especially in Pakistan due to small holdings, traditional methods of farming, poor irrigation facilities, low or misuse of modern farm technology etc (Zuberi, 1989). Pakistan is predominantly an agricultural country. Despite growing industrialization and urbanization of the country during the past few decades, agriculture still continues to be the main economic pillar of the country. Though its share in Gross Domestic product (GDP) has fallen overtime, it occupies a vital position in the economy of Pakistan by contributing about 21.8 percent to the GDP. About 70 percent of total population of the economy lives in rural areas and agriculture is the main source of their livelihood. According to an estimate, agriculture sector has engaged about 44.7% of the total labor force and contributed 34 % to the total export earning (Govt. of Pakistan, 2009).

Credit plays an important role in increasing agricultural productivity. Timely availability of credit enables farmers to purchase the required inputs and machinery for carrying out farm operations (Saboor et al, 2009). Availability of credit facility is an important financial support that a farmer can get in order to bridge the gap between his income and expenditure in the farming. It is an important instrument for enabling farmers to acquire command over the use of working capital. In Pakistan, there are two major sources of agricultural credit: Institutional and non institutional. Non-institutional sources comprise of Kin's, friends, landlords, moneylenders etc, where as institutional sources include Cooperative Banks, Agricultural Development Bank of Pakistan (ADBP) now called ZTBL nationalized and privatized commercial banks and Taccavi loans. However, ZTBL is the major source for advancing agriculture loan. For example, in 2008-09 the loans provided by the ZTBL amounted to Rs 75.13 billion as compared to five major commercial banks i.e. Allied Bank Limited (ABL), Habib Bank Limited (HBL), Muslim Commercial Bank (MCB), National Bank of Pakistan (NBP) & United Bank Limited (UBL) joint contribution of Rs 110.67 billion (i.e. Rs. 22.13 billion per bank nearly 30% of the ZTBL contributions), this

shows that ZTBL is the major source of agricultural loan (Govt of Pakistan, 2010).

In the country a greater part of economic activities in the wholesale and retail trade transportation and manufactures are direct result of production, distribution and trade of agricultural goods. A good harvest of agricultural commodities requires timely and adequate supply of farm inputs and fair returns to farmers. Majority of the farm community is comprised of subsistence farmers who are not in a position to use high quality seeds, required amount of fertilizers and improved farm implements. Lack of finance is one of the main reasons for low per acre productivity in our agriculture. The matter of enhancing agricultural productivity, therefore, largely depends on the availability of finance & credit facilities to the farmers in their respective areas (Arif, 2001).

The present study was designed to estimate the changes brought by micro-credit program of ZTBL in crop productivity and enhancing the marginal and small farmers for the alleviation of poverty

## II. OBJECTIVES

1. To study the effect of credit on agriculture productivity.
2. To provide suggestion and recommendation on the basis of results and findings.

## III. HYPOTHESIS

*H<sub>0</sub>*: Crop production have not increases after microcredit loan

*H<sub>1</sub>*: Crop production have increased after microcredit loan

## IV. REVIEW OF LITERATURE

Jehanzeb (2008), revealed in his study on "The effects of agricultural credit on farm productivity and the income of the small farmer" as a result of the credit provided by ZTBL of Pakistan. Farming was the main occupation of both respondents. The result reveals that the credit advanced by ZTBL in the study area has made a positive effect on the area of wheat and maize. However similar results were reported by Siddiqi et al, (2004) showed that flow of credit to farmers had increased demand for agriculture inputs to increase crop production.

Nosiru (2010) depicted in his study hat Micro credits and Agricultural Productivity in Ogun State, Nigeria that micro credit enabled farmers to buy the agriculture inputs they needed to increase their agricultural productivity. However, the amount of loan borrowed by the farmers in the study area did not contribute positively to level of output. This was as a result of non-judicious utilization, or distraction of credits obtained to other uses apart from the intended farm enterprises.

Javed (2006) highlighted in his study that availability of finance affects crop production in the way it facilitates the small and marginal farmers to purchase inputs at the proper time. Furthermore the study depicted that 86.67 percent respondents claimed that their crop production has increased after getting microcredit from PRSP. There were some farmers who were of the view that their crop production declined in spite of availability of finance. The reasons for decline in crop production were found to be mismanagement of the credit, small loan size, increased expenditures, no farming experience and drought. Average yield of wheat and sugarcane was estimated at 23.50 and 612.70 mounds, respectively on marginal

Arif (2001) examined the effects of Micro Credit disbursement by ADBP on agricultural production in Peshawar. He studied the effect of micro credit on cropping, wheat and vegetable production and the factors that made obstacles in obtaining credit from ADBP. The results show that maximum loaners were having age between 31-50 years. More than half of the total respondents were literate. Majority of them had land between 31-60 kanals and all respondents were found owners all respondents utilized the credit to get inputs, which increased cropping intensity. The most notable increase was observed in the wheat production, whereas change in vegetable production was found in selected village. Due to proper utilization of credit, the income of the sampled respondent got credit on time and reported that ADBP staff is efficient and the behavior was good as well. However, two third of total sampled respondents were not satisfied from security procedure due to its time consumption and unnecessarily delay in loan disbursement process. Those who could not get credit on time stated that they got inputs on credit form local market or sold their live stock or left their and fellow. As a whole the study states that credit has made a positive impact on both the crop and vegetable production. It can further be enhanced if loans are disbursed on time, utilized for the purpose it is obtained and there should be a constant and proper guidance from extension workers and staff of the ADBP.

## V. METHODOLOGY

The study was conducted in district Peshawar of Khyber Paktunkhwa to see the effect of Micro Credit advanced by ZTBL on crop production of farmers. This study area was selected because ZTBL was one of the major institutional sources of agricultural credit for small farmers. A list of those villages, where the ZTBL involved actively in borrowing the credit, was obtained from the Peshawar branch of the Bank. The village Umar Maina was purposively selected, because in this village maximum numbers of small farmer had borrowed loans from the ZTBL. To get a representative sample, the simple random sampling technique was applied to

collect the data. This technique was followed to ensure equal participation of all the strata of the population. Therefore 113 farmers were selected for this study that got loan from the ZTBL.

In the light of the study objectives, an interview schedule was prepared and pre- tested in the field. Amendments were made in the interview schedule based on pre testing responses and data were collected through interview method. The data was entered in SPSS (17 version) and T test statistics (paired t test) was applied to know the crop production before and after getting loan with the help of the formula which is given below;

$$t = \frac{\bar{d} - \mu d}{s_d / \sqrt{n}}$$

which under the null hypothesis follow a t

distribution with (n-1) degree of freedom

t=Student t distribution

$\bar{d}$  =Mean of the two different sample observations

$\mu d$  =Difference between two sample observations

$s_d$  =Standard deviation

n=Sample size

Chaudry and Kamal (1996)

## VI. RESULTS AND DISCUSSION

### a) Comparison of crop production before and after the credit

Table 1 shows comparison of crop production before and after the credit. Before credit per acre yield of potato was 17.87mds while after credit it jumped up to 24.95mds (an increased of 45%). Before credit per acre yield of tomato was 16.1770mds and after credit it went up to 25.11mds (an increased of 55%). Before credit per acre yield of turnip was 14.4513mds while after credit it moved up to 27.4602mds (an increase of

90%). Similarly before credit per acre yield of lady finger was 10.9823mds while after credit it runs up to 18.25mds (an increase of 66%). Per acre yield of wheat is 2190.54mds while after credit it become greater up to 3907.70mds (an increase 78%). Per acre yield of maize is 5981.20mds while after credit it grow up to 7695.20mds (an increase of 28%). Per acre yield of sugarcane is 9.3805mds while after credit it boost up to 16.9469mds (an increase of 80%). The per acre yield of peach is 9.7411karates while after credit it extend up to 16.5045karates (an increase 69%). Per acre yield of plum is 14.7080karates before credit while after credit it step up to 22.8761karates (an increase of 55%). Similarly per acre yield of apricot is 0.4159 karate's which rise up to 0.6327karates (an increased of 52%). The table pointed out significant value and mean difference value with increase in the yield/acre after getting micro credit loan from ZTBL. In this regards, Potato shows significant value (P=0.000) and mean difference value is (-7.388), Tomato production also indicated highly significant value(P=0.000) and mean difference (-11.427) which shown increase in production, the result further disclosed that Turnip has a significant value (P=0.000) with mean difference (-9.274) shows its intensity on working hypothesis, Ladyfinger through micro credit loan shown high significant value (P=0.000) and mean difference value ( -6.562), Wheat also shows significant (P=0.000) with mean difference(-5.02), Maize (P=0.000 and mean difference value -6.62), Sugarcane (P=0.000 and -4.652) and Peach and Plum crops have shown amusingly increase i.e. P=0.000 and average means were -3.526 and -2.704 after getting micro credit loan. However apricot was the only fruit crop which shown less significant and there was not prominent increase in the production after getting loan i.e. P=0.162 with the average mean difference -1.406.

Comparison of crop production before and after the credit

| Crops      | Units | Per Acre out put |         | T-value  | Probability of 't' |
|------------|-------|------------------|---------|----------|--------------------|
|            |       | Before           | After   |          |                    |
| Potato     | Mds   | 17.8761          | 24.9558 | -7.388*  | 0.000              |
| Tomato     | Mds   | 16.1770          | 25.1150 | -11.427* | 0.000              |
| Turnip     | Mds   | 14.4513          | 27.4602 | -9.274*  | 0.000              |
| Ladyfinger | Mds   | 10.9823          | 18.2566 | -6.562*  | 0.000              |
| Wheat      | Mds   | 2190.54          | 3907.70 | -5.02*   | 0.0010             |
| Maize      | Mds   | 5981.20          | 7695.20 | -5.64*   | 0.0008             |
| Sugarcane  | Mds   | 9.3805           | 16.9469 | -4.652*  | 0.000              |
| Peach      | Mds   | 9.7411           | 16.5045 | -3.526*  | 0.000              |
| Plum       | Mds   | 14.7080          | 22.8761 | -2.704*  | 0.040              |
| Apricot    | Mds   | 0.4159           | 0.6327  | -1.406   | 0.162              |

Source: Survey (\* significant at 95%)

## VII. SUMMARY, CONCLUSION AND RECOMMENDATIONS

The present study conducted to evaluate the effects of agricultural credit advanced by ZTBL on farm productivity in District Peshawar of Khyber Pukhtoonkhwa (KPK). For this purpose a total of 113 respondents were randomly selected in a village Urmar Maina of District Peshawar. The data was collected with the help of pre-tested interview schedule. The result shows that 44% got loan for seed, about 22 % of the respondents got loan for use of machinery, 20 % for fertilizer and 13% got loan for the farm yard manure (FYM). If we compare the statistics of farm inputs, used before and after the credit, it is apparent that a considerable improvement in the utilization of the inputs has occurred. While the crop production before and after the credit shows that all crops, except apricot, have shown a very significant increase in the yield per acre. Consequently an extensive progress has been observed with the consumption of the inputs.

For further effectiveness of the institutional loan it is important that; i) the interest rate charged on institutional credit should be reduced up to the extent that the farming community may utilized it easily, ii) the Procedure of advancing loan should be made simple, so that more farmers can be benefited and iii) in time availability of credit should be ensured for timely purchase of the required inputs. In this way more and more farmers will be benefited from the credit advanced by ZTBL.

## REFERENCES RÉFÉRENCES REFERENCIAS

1. Chaudry and Kamal. 1996. Introduction to statistical theory. 6<sup>th</sup> edition published by Ilmi Katab Khana.
2. Zuberi, H A (1983), —Institutional credit and balanced growth: A case study of Pakistan, Journal of Economic Development, 8, 2, Pp167-184.
3. Govt of Pakistan. 2009. Annual Report on Highlights of ZTBL Operation. Economic Research Department, ADBP, Islamabad. p.14.
4. Government of Pakistan 2009 Economic Survey of Pakistan, 2008-09. Economic Advisory Wing, Finance Division, Islamabad.
5. Saboor Abdul, Maqsood Hussain and Madiha Munir (2009), —Impact of micro credit in alleviating poverty: An Insight from rural Rawalpindi, Pakistan,|| Pak. j. life soc. sci. (2009), 7(1): Pp90-97.
6. Arif, 2001. Effect of micro credit disbursed by ZTBL on agricultural production in District Attock; Institute of Development studies Faculty of Rural Social sciences, NWFP Agricultural university Peshawar Pakistan.
7. Muhammad Saddique Javed (2006). IMPACT ASSESSMENT OF MICRO-CREDIT PROGRAMME OF PRSP ON CROP PRODUCTIVITY. Pak. J Agri.

Sci., Vol. 43(3-4). Available at <http://pakjas.com.pk/papers/398.pdf>

8. Nosiru, Marcus Omobolanle (2010), —Micro credits and agricultural productivity in Ogun State, Nigeria. ||World Journal of Agricultural Sciences 6 (3): Pp290-296, 1817-3047 © IDOSI Publications)
9. Siddiqi Muhammad Wasif, Mazhar-ul-Haq, Kishwar, Naheed Baluch (2004), — Institutional credit: A policy tool for enhancement of agricultural income of Pakistan. || International Research Journal of Arts & Humanities (IRJAH) Vol. 37)
10. Jehanzeb, N. (2008). Raising farm productivity through agricultural credit (A Case Study of Zarai Tarraqiati Bank of Pakistan Limited). Sarhad Journal of Agriculture Vol. 24, No. 4, 2008