

## Impact of Zarai Taraqiati Bank LTD (ZTBL) Credit on Agricultural Productivity in Sindh Pakistan

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### Abstract

This study also estimated the impact of credit on agricultural productivity. A huge majority 95% of the respondents had knowledge about the agricultural credit scheme of the ZTBL Bank. More than 56.75% of the loanees' farmers avail credit facilities for the first time from the ZTBL bank. A large majority 63.3% of the farmers were not satisfied with the interest rate charged by the banks. It was found that a large number of farmers mutualized the credit amount. About 66.7% farmers got agricultural credit facility from bank without facing any problem. Result indicates that average cultivated area in case of loanee farmers is higher than non-loanee farmers. It was concluded that the loanee farmers had more cost of production as compared to non-loanee farmers. Results of regression analysis indicate that credit had very normal impact on agricultural productivity as limiting factors is the proper utilization of loan amount in agricultural sector.

**Keywords:** Banks, credit, agricultural productivity.

### 1. Introduction

Zarai Taraqiati Bank Limited (ZTBL) former Agricultural Development Bank of Pakistan (ADBP) is the premier financial institution geared towards the development of agriculture sector through provision of financial services and technical knowhow. The restructuring of former ADBP is being carried out with the aim to uplift the agriculture and rural sector by raising farm productivity, streamlining the institutional credit and increasing income generating capacity of the farming community. ZTBL was incorporated as a Public Limited Company on 14th December, 2002 through repeal of ADB Ordinance of 1961. The new corporate structure redefines the bank's status as a public limited company registered under companies Ordinance'1984 with an independent Board of Directors which aims at ensuring good governance, autonomy, delivering high quality. ZTBL is a key R.F.I of Pakistan providing affordable, rural and agriculture financial/non-financial services to the rural Pakistan, comprising 68 % of the total population. The Bank through a country-wide network of 359 branches is serving around half a million clients annually and over one million accumulated account holders with the average loan size of around Rs.162331 serving 68%, 29% & 3 % of subsistence, economic and large growers respectively. The total assets of the Bank stand at Rs.123 billion with authorized capital of Rs.25 billion as of 31.12.2013, with a nation-wide working strength comprises 5789 employees. The share of ZTBL in total national institutional agricultural credit is 23% as on 30.06.2014. ZTBL was incorporated as a Public Limited Company on 14th December, 2002 through repeal of formal Agricultural Development Bank of Pakistan Ordinance of 1961 (SBP, 2014).

Agriculture is the base sector for major industries like textile and sugar etc, the agriculture sector stands out as the largest source of foreign exchange earnings. Thus, a progressive and well developed agriculture sector can play a pivotal role in accelerating the overall pace of development of the country and alleviating poverty, it is also a fact that the state of development of Pakistan's Agriculture Sector lags behind many developing countries, including our neighboring country. While there are a number of steps, which can be taken to bring our agriculture sector at par with other countries, one critical factor is the sufficient availability of credit for agriculture (Zuberi, 2001).

Government policy with regard to agricultural credit to safeguard the interest of small/medium farmers by extending credit to them on easy terms and conditions as well as to protect them in case of any natural hazards and calamities. Credit requirements of the farming community have been increasing over the year mainly due to rise in the use of fertilizer, pesticide and mechanization. In order to cope with the increasing demand for agricultural credit, institutional credit to farmers is being provided through different banks including ZTBL, and others (GOP, 2011).

The government of Pakistan introduced several agricultural credit programmes through institutional sources. The impact of these programmes was less than optimal due to rambling credit policies. The farmers were facing many constraints to avail agricultural credit in a timely fashion. The collateral inter alia was one of

the major constraints. The objective of the paper is to identify constraints and suggest remedial measures to make efficient use of agricultural credit schemes. Majority of the farmers revealed that they could not avail credit because of needed collateral. The hard hits were tenants and share croppers who do not own land, and thus were unable to avail credit. The high markup both from formal and informal sources was another constraint (Akram *et al.* 2008).

The government of Pakistan has allocated Rs 260 billion as agriculture credit for the year 2009-10 as compared to Rs 250 billion for last year, which indicates an increase of 4 percent over the last year. Out of total credit target of Rs 260 billion, Rs 124 billion were allocated to five big commercial banks, Rs 80 billion to ZTBL, Rs 6 billion to Punjab Provincial Cooperative Bank Ltd (PPCBL), and Rs 50 billion to domestic private banks. The government had also allocated province-wise and sector wise targets whereby 78 percent, 14 percent, 6 percent, 1.5 percent and 0.5 percent to be disbursed in Punjab, Sindh, NWFP, Balochistan and AJK & NA, respectively. Credit was advanced to farmers to supplement their resources for purchase of inputs like seed, fertilizer, and pesticide as well as for purchase of agricultural machinery etc. (Kakakhel, 2009).

## 2. Objectives

1. To identify the constraints involved in acquisition of agricultural credit and to evaluate the actual utilization of agricultural credit in comparison to the purpose it was disbursed.
2. To study the impact of credit on agriculture productivity.
3. To suggest policy measures to overcome constraints involved in agriculture credit acquisition and avoid misutilization of credit amount.

## 3. Methodology

This study was carried out through survey method. The discussion is mainly focused on various aspects such as study design, sample selection, construction of measuring instrument, pilot study or pre-testing and measures adopted during development of questionnaire to ensure its validity.

### 3.1. Study Design

This study is based on the primary data, which were collected from loanees (agriculture credit) of ZTBL and non-loaneees of district. A detailed questioner was developed to explore the research objectives. A random selection of loanees of ZTBL and non-loaneees of agricultural credit of District was carried out to ensure the generalization of research findings. The respondent selection from the selected branches of ZTBL Bank was based on the simple random sampling technique. The active loanees were provided by the bank and every fifth loanee was interviewed from the sequence of the list.

### 3.2. Sample Size

A sample is any subset of sampling units from a population. A subset is any combination of sampling units that does not include the entire set of sampling units that has been defined as the population. From the selected branches of ZTBL bank 30 farmers (loanees) were selected randomly i.e. twenty farmers from each branch and 30 farmers (non-loaneees) were also selected randomly from the above mentioned area of District Kashmir at Kandh Kot.

### 3.3. Pre -Testing

Five loanees and five non-Loanees were interviewed to check the sensitivity of the questionnaire. Another objective of this pre-testing was to ensure whether respondent really understand the questions and yield true response. The ambiguities encountered during this trial and error stage were carefully rectified on revision and modification of the questionnaire. Question on the cost and production of wheat were rephrased in the light pre-testing.

### 3.4. Interviewing

Questions were asked from the respondent in a face-to-face situation. The interview schedule was prepared in English and asked in Sindh (Local language) from farmers.

### 3.5. Data Analysis

The data thus, collected was fed to computer for analysis. The coded data were analyzed through statistical package for social sciences (SPSS). Analysis were done by using statistical techniques like means, comparison of means and frequency distribution to draw the conclusions and interpret the research findings and to suggest measures for improvement.

### 3.6. Gamma Statistics

The value of Gamma shows the strength and direction of the relationship between independent and dependent variables. Calculations were made by using the following formula.

$$\text{Gamma} = \frac{NS-ND}{NS+ND}$$

Where

NS = Same Order Pair      ND = Different Order Pair.

### 3.7. Regression Analysis

Regression analyses are set of statistical techniques used to assess the relationship between the dependent and independent variables. When more than two variables are involved, the most commonly used procedure to investigate the significance of each of the independent variables in explaining dependent variable is multiple linear regressions (Woehr and Cavell, 1993).

The inclusion of credit as an independent variable in the production function is usually criticized on the grounds that it does not affect the output directly; rather it has an indirect effect on output through easing the financial constraints of the producers in purchasing inputs. However, credit was included as an explanatory variable in the production function based on the argument of Carter (1989).

He argued that credit affects the performance of agriculture in three ways: (i) encourage efficient resource allocation by overcoming constraints to purchase inputs and use them optimally. This sort of effect would shift the farmer along a given production surface to a more intensive, and more remunerative, input combination (ii) if the agricultural credit is used to buy a new package of technology, say high-yielding seed and other unaffordable expensive inputs, it would help farmers to move not only closer to the production frontier but also shift the entire input-output surface. In this regard it embodies technological change and a tendency to increase technical efficiency of the farmers and (iii) credit can also increase the use intensity of fixed inputs like land, family labour, and management. Carter's reasoning implies that agricultural credit not only increases management efficiency but also affects the resource allocation and profitability.

The collected data were then analyzed using the following Cobb Douglas production function;

### 3.8. Model 1

$$\ln \text{ gross margin} = \beta_0 + \beta_1 \ln \text{scploughing} + \beta_2 \ln \text{sseed} + \beta_3 \ln \text{scfertilizer} + \beta_4 \ln \text{sccanalirrigation} + \beta_5 \ln \text{sctubewell} + \beta_6 \ln \text{scchemical} + \beta_7 \ln \text{landholding} + \beta_8 \ln \text{education} + \beta_9 \text{credit (d)}$$

Where:

In gross margin = natural log of the gross margin in Rs.

In scploouging= natural

Log of number ploughing for wheat

In sseed = natural log of the seed for wheat

In scfertilizer = natural log of fertilizer of wheat used in bags/acre

In sccanalirrigation = natural log of no. of canal irrigation for wheat

In sctubewell= natural log of no. of tube well irrigation for wheat

In scchemical = natural log of no. of chemical applications for wheat (per acre)

In lanholding = natural log of size of land holding

In Education = natural log of years of schooling

Credit (d) = avail credit facility (dummy)

$\beta_0 \beta_1 \beta_2 \beta_3 \beta_4 \beta_5 \beta_6 \beta_7 \beta_8$  and  $\beta_9$  = estimate parameters of the model

### 4. Results

Analysis and interpretation of data are the most important step in scientific research. Without these steps generalization and prediction cannot be achieved which is the target of scientific research. Generalization and conclusion are drawn on the basis of characteristics and attitudes of the respondents. Therefore, this chapter presents the required data analysis.

#### 4.1. Age

**Table .1 Distributions of farmers according to their age in the study area**

Age category (year)	Non-Loanee	Loanee	Total
Up to 35	07	04	11
35 to 45	11	18	29
Above 45	12	08	20
Total	30	30	60

Table .1 depicts that 07 non-loanee and 04 loanee farmers belonged to age group up to 35 years, while about one-third i.e.11 non-loanee and less than half i.e. 18 loanee farmers belonged to age group 36-45 years. About 12 non-loanee and 08 loanee farmers' belonged to age group above 45 years.

#### 4.2. Education

**Table .2 Distributions of the farmers according to their education level in the study area**

Education of respondents	Non-Loanee	Loanee	Total
Illiterate	05	04	09
Primary-middle	15	12	27
Matric	08	10	18
Collage-University	02	04	06
Total	30	30	60

Table .2 reveals that slightly less than 05 farmers' non-loanee, 04 farmers loanee were illiterate, while about 15 farmers non-loanee, 21 farmers loanee were Primary-middle level of education. The 08 farmers' non-loanee, 10 farmers loanee were matriculation. Only 02 farmers' non-loanee, 04 farmers loanee were Collage-University education in the study area.

#### 4.3. Family members

**Table .3 Distributions of the farmers according to their family members in the study area**

No. Family members	Non-Loanee	Loanee	Total
5-6	13	06	19
7-8	11	14	25
9 and above	06	10	16
Total	30	30	60

Table .3 shows that 13 farmer's non-loanee, 06 farmers loanee had 5-6 family members, 11 farmers non-loanee, 14 farmers loanee had 7-8 family members, 06 farmers non-loanee, 10 farmers loanee had 9 and above family members in the selected area.

#### 4.4. Family Type

**Table.4 Distribution of the farmers according to the family type in the study area**

Family Type	Non-Loanee	Loanee	Total
Joint family	23	25	48
Single family	07	05	12
Total	30	30	60

Table .4 indicate that a he majority i.e. 23 farmers non-loanee , 25 farmers loanee were living in joint family system, while only 07 farmers non-loanee and 05 farmers loanee wee living single family system. Majority of respondents were living in joint family system.

#### 4.5. Experience

**Table .5 Distributions farmers according to their agricultural experience in the study area**

Experience(years)	Non-Loanee	Loanee	Total
Up to 10	05	04	09
11-20	10	11	21
Above 20	15	15	30
Total	30	30	60

Table.5 reveals that only 05 non- loanee farmers and 04 loanee farmers had up to 10 years of agricultural experience, while most of the respondents i.e. 10 farmers non loanee and 11farmers loanee had 11-20 years agricultural experience. 15 non- loanee farmers and 15 loanee farmers had above 20 years of agricultural experience.

#### 4.6. Size of land holding

**Table .6 Distribution of the farmers according to size of land holding in the study area**

Size of land holding (acres)	Non-Loanee	Loanee	Total
Up to 05	14	14	28
06- 10	13	12	25
11 and above	03	04	07
Total	30	30	60

Table .6 indicates that 14 non- loanee farmers and 14 loanee farmers had up to 05 acres to size of land holding, while most of the respondents i.e. 13 farmers non loanee and 14 farmers loanee had 06-10 acres to size of land holding. 03 non- loanee farmers and 04 loanee farmers had 11 and above acres to size of land holding.

#### 4.7. Agricultural credit

**Table.7 Distribution of the farmers according to the information about agricultural credit scheme in the study area**

Information about agricultural credit scheme.	Non-Loanee	Loanee	Total
Yes	27	30	57
No	03	00	03
Total	30	30	60

Table .7 The knowledge of agricultural credit scheme show that 27 farmers non loanee had information about agricultural credit scheme and 30 of loanee farmers had information about schemes of the ZTBL. Only 03 farmers non loanee were not aware of the schemes.

#### 4.8. Source of information

**Table .8 Distributions of the farmers according to their source of information about agricultural credit scheme in the study area**

Source of information about agricultural credit scheme.	Non-Loanee	Loanee	Total
Banks staff	16	24	40
Relatives	14	06	20
Total	30	30	60

Table .8 show that a majority i.e. 40 respondents were getting information about agricultural credit scheme from ZTBL bank staff, while about 20 of them reported that they got information their relatives. It is evident from the result that ZTBL bank has a very strong strategy to create awareness among farmers about the formal and intuitional source of credit.

#### 4.9. Bank credit facility

**Table .9 Distributions of the farmers according to the number of times credit facility availed in the study area**

How many time avail the credit facility bank	No
One	17
Twice	11
Thrice	02
Total	30

Table .9 shows that 17 of the loanees availed the credit facility for the first time, 11 of the loanees availed this credit facility second time and only 02 availed it for third time.

#### 4.10. Satisfaction level

**Table .10 Distribution of the farmers according to the satisfaction with interest rate in the study area**

Satisfaction level	No
To great extent	00
To some extent	12
Not at all	18
Total	30

Table .10 shows that 12 of the loanees were satisfied with interest rate charged by ZTBL Bank to some extent and 18 of the loanees were not satisfied with the interest rate charged by the bank.

#### 4.11. Credit amount demanded

**Table .11 Distribution of the farmers according to the credit amount demanded and disbursed in the study area**

Amount Rs	Demand Amount	Disbursed Amount
100000-150000	05	16
150002-200000	14	10
Above 200000	10	04
Total	30	30

Table .11 shows the demanded and disbursed amount of the respondents. Above table reflects that 05 of the loanees demanded, 16 of the Disbursed amount 100000-150000 Rs, while a major proportion i.e. 14 of the loanees demanded, 10 of the Disbursed amount 150002-200000 Rs. And 10 of the loanees demanded, 04 of the Disbursed amount Above 200000 Rs.

#### 4.12. Utilization of loan

**Table .12 Distributions of the farmers according to the utilization of loan for agriculture purpose in the study area**

Utilization of loan for agriculture purpose	No.
Banks staff	18
Relatives	12
Total	30

Table .12 reveals that 18 farmers used credit for agriculture purpose and 12 farmers use the credit for some purpose other than agriculture.

#### 4.13. Purpose of loan

**Table .13 Distribution of the farmers according to the purpose of loan as per bank record in the study area**

Purpose of loan as per bank record	No.
All type of inputs	25
Purchase of seed and fertilizer	05
Total	30

Table .13 shows as per bank record 100% loans were disbursed for agriculture inputs like seed, fertilizer, pesticides etc.

#### 4.14. Actual utilization of loan

**Table .14 Distributions of the farmers according to the actual utilization of loan amount in the study area**

Actual utilization of loan amount	No.
Utilized of fulfill the actual purpose of the loan	20
Fulfilment of domestic needs	06
Pay of some pervious loan/liability	04
Total	30

Table .14 shows that 20 respondents reported that they utilized the loan amount for fulfill the actual purpose of loan, while 06 respondents reported that they utilized the loan amount for fulfill the domestic needs and 04 respondents reported that they paid of some pervious loan/liability with current disbursed amount.

#### 4.15. Reason for misutilization loan

**Table .15 Distributions of the farmers according to the reason for misutilization of the loan amount in the study area**

Reason for misutilization loan amount	No.
Poor financial condition	18
Not willing to invest in agriculture sector	05
Social pressure	07
Total	30

Table .15 shows that majority 18 farmers reported that they misutilization loan amount due to poor financial condition, 05 farmers reported that they Not willing to invest in agriculture sector and 07 farmers reported that they misused loan due to social pressure.

#### 4.16. Extent of problems

**Table .16 Distributions of the farmers according to the extent of problems faced in getting loan facility in the study area**

Extent of problems faced in getting loan facility	No.
To great extent	00
To some extent culture sector	10
Not at all	20
Total	30

Table .16 shows that 20 farmers get agriculture credit facility from bank without facing any problem while 10 farmers are said they face problem to some extent.

#### 4.17. Nature of problems

**Table .17 Distributions of the farmers according to the nature of problems faced in getting loan facility in the study area**

Nature of problems faced in getting loan facility	No.
Process involved in loan acquisition was very much complex	10
Terms and conditions of the bank were not clear	08
No problem	12
Total	30

Table .17 shows that 10 farmers reported process involved in loan acquisition was very much complex, 08 farmers reported Terms and conditions of the bank were not clear and 12 farmers reported no problem in getting loan facilities.

#### 4.18. Nature of negative impact

**Table .18 Distribution of the farmers according to the nature of negative impact of the Loan facility in the study area**

Nature of negative impact of the loan facility	No
Difficult to repay	04
High markup	18
Increase in due burden	03
all above discussed reason	05
Total	30

Table .18 shows that 04 of the respondents reported that they felt difficulty in repay the loan amount, while a major proportion i.e. 18 respondents of them said that the mark up rate is very high rate is very high, 023respondents reported increase in debit burden had negative impact, another 05 of them had all above discussed reason of negative impact of the loan.

#### 4.19. Nature of positive impact

**Table .19 Distribution of the farmers according to the positive of negative impact of the Loan facility in the study area**

Nature of positive impact of the loan facility	No
Increase in production	05
Adoption of new technologies in agriculture	03
Income increase	04
No positive impact	18
Total	30

Table .19 shows that 05 of the respondents reported that they Increase production in the loan amount, 03 respondents of them said that Adoption of new technologies in agriculture, 04 respondents reported increase income had positive impact, another 18 of them had No positive impact of the loan.

#### 4.20. Source of income

**Table .20 Distributions of the farmers according to the any other source of income in the study area**

Any other source of income	No
Yes	12
No	18
Total	30

Table .20 show that 12 farmers of the have source of income other than agriculture and 18 farmers have agriculture as only source of income.

#### 4.21 Cost of Production of Major Crop

**Table .21 Comparison of mean area of wheat crop (acres) in the study area**

Respondent		Wheat
Non-Loanee	Mean	4.02
	Number	30
	Std. Deviation	0.65
Loanee	Mean	4.47
	Number	30
	Std. Deviation	2.47
Total	Mean	4.24
	Number	60
	Std. Deviation	1.81

Table .21 shows mean area under wheat crop for non-loanees was 4.02 acres for wheat and in case of loanees 4.47 acres for wheat. Result indicates that average cultivated area in case of loanee farmers is higher than non-loanee farmers.

#### 4.22 Ploughing cost

**Table .22 Comparison of mean per acre ploughing cost of wheat crop (Rs/per acre) in the study area**

Respondent		Wheat(Rs/per acre)
Non-Loanee	Mean	2575.00
	Number	30
	Std. Deviation	417.67
Loanee	Mean	2560.00
	Number	30
	Std. Deviation	677.78
Total	Mean	2567.50
	Number	60
	Std. Deviation	560.64

Table .22 shows the average cost of ploughing acre for wheat crop. In case of non-loanee it is 2575.00, Rs per acre for wheat respectively and in case of loanees it is 2560.00 Rs. Per acre .

#### 4.23. Planking cost

**Table .23 Comparison of mean per acre planking cost of wheat crop (Rs/per acre) in the study area**

Respondent		Wheat(Rs/per acre)
Non-Loanee	Mean	1663.33
	Number	30
	Std. Deviation	251.08
Loanee	Mean	1573.33
	Number	30
	Std. Deviation	395.68
Total	Mean	1618.33
	Number	60
	Std. Deviation	333.05

Table .23 shows the average cost of planking acre for wheat crop. In case of non-loanee it is 1663.33Rs per acre for wheat respectively and in case of loanees it is 1573.33 Rs. Per acre .



#### 4.24. Cost of seed

**Table .24 Comparison of mean cost of seed wheat crop (Rs) in the study area**

Respondent		Wheat(Rs/per acre)
Non-Loanee	Mean	1425.00
	Number	30
	Std. Deviation	227.46
Loanee	Mean	1556.67
	Number	30
	Std. Deviation	287.22
Total	Mean	1490.83
	Number	60
	Std. Deviation	266.31

Table .24 shows the average cost of seed for wheat crop. In case of non-loanee it is 1425.00, Rs. per acre for wheat respectively and in case of loanees it is 1556.67 Rs. Per acre for wheat.

#### 4.25. Cost of fertilizer

**Table .25 Comparison of mean cost of fertilizer of wheat crop (Rs) in the study area**

Respondent		Wheat(Rs/per acre)
Non-Loanee	Mean	772.87
	Number	30
	Std. Deviation	28.22
Loanee	Mean	808.60
	Number	30
	Std. Deviation	286.26
Total	Mean	790.73
	Number	60
	Std. Deviation	203.33

Table .25 shows the average cost of fertilizer for wheat crop. In case of non-loanee it is 772.87Rs, per acre for wheat respectively and in case of loanees it is 808.60 Rs. Per acre are

#### 4.26. Cost of DAP

**Table .26 Comparison of mean cost of DAP of wheat crop (Rs) in the study area**

Respondent		Wheat(Rs/per acre)
Non-Loanee	Mean	2650.83
	Number	30
	Std. Deviation	62.09
Loanee	Mean	2980.00
	Number	30
	Std. Deviation	1314.82
Total	Mean	2815.42
	Number	60
	Std. Deviation	941.45

Table .26 shows the average cost of fertilizer for wheat crop. In case of non-loanee it is 2650.83 Rs, per acre for wheat respectively and in case of loanees it is 2980.00Rs. Per acre are for wheat.

#### 4.27. Cost of FYM

**Table .27 Comparison of mean cost of FYM of wheat crop (Rs/per acre) in the study area**

Respondent		Wheat(Rs/per acre)
Non-Loanee	Mean	108.34
	Number	30
	Std. Deviation	244.28
Loanee	Mean	83.33
	Number	30
	Std. Deviation	214.45
Total	Mean	95.83
	Number	60
	Std. Deviation	229.23

Table .27 shows the average cost of FYM for wheat crop. In case of non-loanee it is 108.34, per acre for

wheat respectively and in case of loanees it is 83.33Rs. per acre for wheat.

#### 4.28. Canal water

**Table .28 Comparison of mean cost of canal water of wheat crop (Rs/per acre) in the study**

Respondent		Wheat(Rs/per acre)
Non-Loanee	Mean	100.00
	Number	30
	Std. Deviation	0.00
Loanee	Mean	100.00
	Number	30
	Std. Deviation	0.00
Total	Mean	100.00
	Number	60
	Std. Deviation	0.00

Table .28 shows the average cost of canal water for wheat crop. In case of non-loanee it is 100.00Rs, per acre for wheat respectively and in case of loanees it is 100.00Rs.per acre for wheat.

#### 4.29. Cost of tube well

**Table .29 Comparison of mean cost of tube well water of wheat crop (Rs/per acre) in the study area**

Respondent		Wheat(Rs/per acre)
Non-Loanee	Mean	0.00
	Number	30
	Std. Deviation	0.00
Loanee	Mean	166.67
	Number	30
	Std. Deviation	423.33
Total	Mean	83.33
	Number	60
	Std. Deviation	309.60

Table .29 shows the average cost of tube well for wheat crop. In case of non-loanee it is 0.00Rs, per acre for wheat respectively and in case of loanees it is 166.67 Rs. Per acre for wheat.

#### 4.30. Cost of production

**Table .30 Comparison between cost of production of wheat crop (Rs/per acre) in the study area**

Respondent		Wheat(Rs/per acre)
Non-Loanee	Mean	14921.60
	Number	30
	Std. Deviation	1879.64
Loanee	Mean	15804.64
	Number	30
	Std. Deviation	3082.56
Total	Mean	15362.95
	Number	60
	Std. Deviation	2580.55

Table .30 shows the average cost of production for wheat crop. In case of non-loanee it is 14921.60 Rs, per acre for wheat respectively and in case of loanees it is 15804.64 Rs. Per acre for wheat.

#### 4.31. Cost of production

**Table .31 Relationship between cost of production of wheat crop (Rs/per acre) in the study area**

Total cost on wheat crop (Rs)	Respondent		Total
	Non-Loanees	Loanees	
Up 25000	11	08	19
	36.7%	26.7%	31.7%
25001-35000	07	08	15
	25.0%	26.7%	25.8%
35001-45000	10	03	13
	33.3%	19.0%	21.7%
Above 45000	02	11	13
	5,0%	36.7%	20.8%
Total	30	30	60
	100.0%	100.0%	100.0%

Gamma value shows a positive relationship between the variable. Its mean loanee farmers had more cost on wheat crop as non loanee farmers. Table 31. Shows the compression of total per acre cost of production of wheat crop between loanee and non loanee farmers. Data shows that 36.7% of non loanee farmer and 26.7 % of loanee farmers had per acre cost of production up to 25000 Rs per acre and 25 % of non loanee and 26.7 % of loanee farmers had per acre cost of production up to 35000 Rs per acre and 33.3 % of non loanee and 10% of loanee farmers have per acre cost of production up to 45000 Rs per acre 5% of non loanee 36.7 % of loanee farmers had per acre cost of production above 45000 Rs per acre ,the trend shows that loanee farmers had higher average per acre cost of production than non loanee farmers.

#### 4.32. Output of Wheat

**Table .32 Comparison of mean output of wheat crop (40 K.g/per acre) in the study area**

Respondent		Wheat(40K.g per acre)
Non-Loanee	Mean	32.7
	Number	30
	Std. Deviation	1.83
Loanee	Mean	33.67
	Number	30
	Std. Deviation	2.58
Total	Mean	33.20
	Number	60
	Std. Deviation	2.28

Table .32 shows the average production of wheat crop. In case of non-loanee it is 32.7(40K.g per acre) for wheat respectively and in case of loanees it is 33.67 (40K.g per acre) for wheat.

#### 4.33. Total value

**Table .33 Comparison of mean total value of wheat crop (Rs/per acre) in the study area**

Respondent		Wheat(Rs/ per acre)
Non-Loanee	Mean	29317.83
	Number	30
	Std. Deviation	1759.27
Loanee	Mean	28874.00
	Number	30
	Std. Deviation	5485.54
Total	Mean	29095.92
	Number	60
	Std. Deviation	4070.23

Table .33 shows the average value per acre of wheat crop. In case of non-loanee it is 29317.83 (Rs/ per acre) for wheat respectively and in case of loanees it is 28874.00 (Rs/ Per acre) for wheat.

#### 4.34. Gross Margin

**Table .34 Comparison of farmers on the basis of Gross Margin of wheat crop (Rs/per acre) in the study area**

Gross Margin for Wheat crop(Rs/p.a)	Respondent		Total
	Non-Loanees	Loanees	
Up 75000	10	06	16
	62.5%	37.5%	100.0%
75001-100000	10	08	18
	55.6%	44.4%	100.0%
100001-125000	07	08	15
	46.7%	53.3%	100.0%
Above 125000	03	08	11
	52.7%	72.7%	100.0%
Total	30	30	60
	50.0%	50.0%	100.0%

Gamma value shows a strong positive relationship between gross margin of wheat crop and type respondents. Data show in this table total 16 farmers belong to income category up to 75000 Rs per acre out of 62.5% are non loanees and 37.5% are loanees and 18 farmer belong to category to 75001-100000 Rs per acre out of which 55.6% are non loanees and 44.4% are loanees and 5 farmers belong to 100000-125000 Rs per acre out of which 27,3% are non loanees and 27,7% are loanees farmers. So above result clearly indicates that loanee's farmers gain more income from their wheat crop as compare to non loanee farmers.

#### 4.35. Total cost

**Table .35 Comparison of total cost of production and gross margin for wheat crop (Rs/per acre)**

Items	Wheat Crop	
	Non Loanee	Loanee
<b>Total Cost</b>	<b>14531.33</b>	<b>15020.45</b>
<b>Total Value Product</b>	<b>33124.83</b>	<b>34142.67</b>
<b>Gross Margin</b>	<b>18593.83</b>	<b>1922.76</b>

#### 5. Conclusion and suggestions

It is clear from the above discussion that the credit does have an impact on the productivity of major crops i.e. sugarcane and wheat crop but limiting factor is the proper utilization of the credit amount. All these findings make any one to conclude that ZTBL bank are effectively serving the agricultural sector of Pakistan through their credit disbursement scheme hence improving the living standard of people living in rural areas, reducing the poverty and ultimately helping the economy of the country. Improvements can always be made in any system so is the case with credit disbursement schemes, according to the problems which were noted during the survey, a few suggestions are listed below to make the credit impact better:

1. Proper utilization of the loan must be ensured by providing an appropriate amount of loan at the time when it is needed otherwise the loan may be misused and recovery would become difficult.
2. Improvement in technical know how of the borrowers by the bank officials. For this purpose proper training of the staff concerned is necessary so the workshops and seminars should be arranged for the field staff.
3. To avoid the misuse of the loan and provide technical and economic know how, supervised credit schemes must be revived and restructured.
4. ZTBL bank staff should motivate farmers for the investment of credit amount provided by ZTBL bank in agriculture sector.
5. In case of any natural calamity by the bank should revise the repayment schedule at the convenience of the borrowers.
6. ZTBL bank can provide farmers required inputs directly to ensure proper utilization.
7. To avoid the problem of high interest rate the ZTBL bank should introduce interest free lending on the basis of Islamic partnership, that is, Musharke/ Muzarba as per Islamic banking.
8. It is suggested that ZTBL bank should simplify the terms and conditions involved in process of loan disbursement and also simplify the disbursement process in sense of one window operation.

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