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Effects of Zarai Taraqiati Bank Limited Credit Program on Buffalo Production in Rural Areas of Distract Mardan , Pakistan

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Abstract
The present study was conducted in rural area of district Mardan. The major objectives were to examine the effects of ZTBL Finance Program on buffaloes production on various size of farms, problems and constraints faced by farmer in financing procedure by bank, The universe of the study consists of three tehsils, namely Mardan, Takhth Bahi and Katlang. Purposively from each tehsil two villages namely Gujar gari, Rustum, Lund khawar, Sharegarh, Katlang and Jamal Gari were respectively selected. All beneficiaries of the ZTBL consist of 260 while the number of buffalo owners was 100 in the study area. In tehsil Mardan 29, Takhth Bahi 19, Katlang 52 while through questionnaire data were collected. Descriptive statistics, correlation and paired t-test were used for analysis. The result indicates illiterate farmers 28% and literate 72%. The owner farmer 93%, owner-cum-tenant,7% and tenant zero percent. The total amount disbursed to sampled buffalo owners was Rs.25736000 and short term 16%, medium term 80% while the long term exposure was only 4%. Average buffalo number after credit was 1.87 and before 1.91, while percent change was -2 %, t value -.180 and P value .857 at .05 levels. The result was found non- significant which explains that credit has no effect on buffalo's number. Average annual cost after credit were Rs. 90810 and before Rs.48730 however percent change was 86%. The result was found highly significant at .05 levels. The average annual production value after credit was Rs.149860 and before 100760, while % changes was estimated 49% and result was found significant at .05 level. High costs of fodder; non availability of quality breeds; high interest rate; complicated procedure of the bank; non availability of loan in time etc were observed in the study area On the basis of problems which are stated as Loan should be provided to farmers according to requirements; interest rate should be decreased in future; fodder cost of the buffalo should be decreased by protecting grazing field; hospitals facilities should be provided for treatment of animals; one window operation policy should be applied by bank and Special buffaloes program should be arranged in future for enhancement of buffaloes production for high return to farmer in the study area etc.
Keywords: Effects, Zari Tarqiati Bank, Credit Program, Buffalo Production, Rural Areas of District Mardan

1. INTRODUCTION

Agriculture means the biologic growth through scientific and artifice ways on the farms. Pakistan is an agriculture country and majority population based on agriculture. It is still the largest sector of Pakistan economy. Its contribution in GDP is 21.4 percent and employments share in labor force is 45 percent while in export is 70%. The share of livestock in agriculture is 55.4 percent grew by 3.7 percent while buffaloes share is more than the other animals followed by cows in milk production (Pakistan Economic Survey 2012-13).

Now a day Livestock plays key role in the development of a country. The livestock sector generates jobs for rural women and men; supply organic manure to rural farmer which keep the soil fertile for long run; afford raw leather and bone to industry etc. The milk demand of the buffaloes is more than the other animal because in buffalo's milk the fats are more and make the tea very tasty. The value of livestock is 6.1% more than the combined values of major and minor crops because of this government gives due attention to its development in Pakistan (Census of live stocks population in Pakistan, 2008-09).

Table.1 Livestock population in Pakistan (million)

Species	2006-07	2007-08	2008-09
Cattle	30.70	31.80	33.00
Buffaloes	28.20	29.00	29.90
Goat	55.20	56.70	58.30
Sheeps	26.80	27.10	27.40
Horses	00.30	00.30	00.40
Asses	04.30	04.4	04.50
Mules	00.20	00.20	00.20
Camels	00.90	01.00	01.00
Total	146.6	150.50	154.7

Source:- Livestock census 2008-09 Pakistan

Table 1 indicates the Livestock population in Pakistan. In 2006-07 the total population of livestock was 146.60 million. The population of goat was highest followed by cattle while the population of buffaloes was third. The mules number was lowest than the all. However in 2007-08 the population was 150.50 million. Goat number was highest followed by cattle. The buffalo's number was third. In 2008-09 the goat number was highest followed by cattle while the buffaloes was third. In all years the number of mule was lowest than the other animal in Pakistan. The table also explains that pattern of all animals remained same in all years

Saboor et. al (2009) found the average milk animal number same in the project with credit and without credit. The share of buffaloes was 60% and cows were 40% in both credit and without credit situation. The total average milk production with credit was 2583 kgs/annum. The share of cows was 32% and buffaloes 68%. The total average milk production without credit was 2670 kgs/annum. The cows share was 34% while the buffaloes 66%. The total

average milk return from cows and buffaloes with credit was Rs.42000/annum while without credit was Rs.44385, so the return of the without credit was greater than with credit farmer while the production of crops per acre was found greater than without credit farmer but livestock return was greater than crops per acre yield.

The Agricultural finance is an important financial support to farmers for fulfilling their financial requirements for farm activities which fill the gap between their income and expenditure in farming operation. Farming not only requires finance for quality seeds, fertilizer and modern equipments but also requires liquid capital for other activities of the farm (Iqbal et.al, 2003).

In Pakistan, there are two type of credit, formal and non formal. Formal credit is institutional credit which is provided to farmer by institution such as ZariTarkiati Bank Limited (ZTBL), commercial banks, cooperatives and domestic private banks while non formal credit is the non-institutional credit which links with friends, neighbors, and professional money lenders in the country (Idress and Ibrahim, 1993).

Government of Pakistan gives high priority to ensure the timely availability of finance to the farmers for getting higher production. Finance requirements of the farming community have shown an increasing trend over the years. Therefore, agricultural finance was increased by the government from Rs.42852. millions to Rs.215965.34 million during 1998-2011 while in 2011-2012 it dropped to 66% . Institutional finance is being provided through ZTBL, Commercial Banks, Cooperatives and Domestic Private (Banks. Economic Survey 2011-13)

Mohsin et. al (2011) studied that credit plays important role in providing modernization of agriculture and increase the participation of the small farmers in uplifting the agriculture economy of the country. Not only the credit solves the financial constraint but also it may facilitate the incentive to adopt new technologies for the development of agriculture.

Khan and Jan , (2012) studied that the availability of finance by bank showed a significant increase in the production of crops such as wheat, maize, sugarcane, tobacco while such type activities also increased 16 percent income of the farmer and boost the production of livestock sector indirectly. The less amount availability and high interest rate was found barrier to farmer in taking loan from the bank. The respondents considered the amounts Rs.12880 to each one by bank non sufficient for their field requirement. During survey it was also recorded that interest rate was higher for uplifting their economic conditions. The result also revealed that the outskirt farmer of the villages could not benefit more than the nearest.

Seeing to its vitality the cited title study was selected .The major objectives were:- i)to examine the effects of ZTBL, Credit program on buffaloes production on various size of farms (ii) to identify problems and constraints faced by farmer in financing procedure (iii) Recommendations for improvement of ZTBL's finance program for buffaloes production in the project area.

2. MATERIAL AND METHODS

This study was conducted in district Mardan of Khyber Pukhtunkhwa province. The district lies from 34◦-05 to

34◦-32 north latitudes and 71◦-48 to 72◦-25 east longitudes. It is bounded on the north by Buner district, and Malakand protected area, on the east by Sawabi and Buner districts, on the north by Nowshera district and on the west by Charsada district and Malakand protected area. The total area of the district is 1632 square kilometers. It is an important farming region of Khyber Pukhtunkhwa, and its soil and climatic conditions are very favorable for both agricultural and horticulture crops. The major crops grown in the district are wheat, sugar cane, tobacco, maize, rice, rape seed and mustard, etc.

The major source of income of people is agriculture and livestock rearing, supplemented by non-farming acctivities. Both small and large farmers avail the credit from different sources, including ZTBL. Since ZTBL has advanced huge amount of finance to a farmer in the district Mardan . The Universe of the study consists of three tehsils, namely Mardan, Takhth Bahi and Katlang. Purposively from each tehsil two villages namely Gujar gari, Rustum, Lund khawar, Sharegarh, Katlung and Jamal gari were respectively selected. All beneficiaries of the ZTBL consist of 260 in the project area while the number of buffaloes owners were 100. In tehsil Mardan 29, Takhth Bahi 19, Katlang 52 while village wise distribution in Gujar garhi 21, Rustam 8, Lundkhwar 11, Shargarh 8, Katlung 22 and Jamal Garhi 30. All the way through questionnaire data were collected. Through SPSS, descriptive statistics, correlation and paired t-test were used for analysis.

3. RESULT AND DISCUSSION

Table 2 Literacy Status of the sampled respondent in the study area

Particular Item	No	%
Illiterate	28	28
Literate	72	72
Total	107	100

Table 2 indicates the Literacy status of the sampled respondent in the study area. According to table 28% is illiterate while 72% literate. So the Literacy rate is better than Pakistan Literacy rate which is 58%. Sind and Punjab 60% followed by Khyber Pukhthunkhwa 52% while Baluchistan 46% (Economic Survey of Pakistan 2012-2013). So it is a good symptom for the buffalo's raring because literacy play important role in the raring of buffaloes in a country. Literate farmers more easily adopt the modern technology for enhancement of buffaloes' productivity than illiterate farmers. They read the research publication and pamphlets with no trouble. Through this way they improve their farming knowledge's and increase their buffaloes productivity, however boost their standard of living and developed the GDP of the Nation.

Table 3 Educational Status of the sampled respondents of Buffaloes owners in the Study area

Educational Status	No	%
Primary	12	17
Middle	16	22
Matric	28	39
F.A/F.Sc	07	10
B.A	08	11
M.A	01	01
Total	72	100

Table 3 shows the educational status of the sampled respondents in the study area. According to table primary exposure is 17% , middle 22%, Matric 39% , F.A/F.Sc 10%, B.A 11% and M.A 1% The data indicate that very few farmers have M.A education even as, majority are matriculates. The high level struggle for other jobs in the country to earn more than farming activities hence they do not take keen interest in buffaloes raring.

Table 4 Tenancy Status of the sampled Farmers of Buffaloes owners in the Study area

Particular Item	No	%
Owner	93	93
Owner-Cum-Tenant	07	07
Tenant	00	00
Total	100	100

Table 4 reveals the Tenancy Status of the sampled farmers in the study area. According to table 93% is owner, 7% owner cum tenant while tenant exposure is Zero percent. So the table data reveal that the loan have given to only owner and owner cum tenant farmer in the study areas while tenant have not given loan by bank due to lack of land.

Table5 Distribution of Various Size of land in Hectares of sampled Farmers of the Buffaloes owners in the Study area

Various Size of Land	No	%	Correlation
1-5	88	88	Between various size of land and Buffaloes number
5-10	03	06	r=--.045
10-15	02	03	P Value= .657
15-20	02	02	
Above-20	01	01	

Table 5 reveals the distribution of Various Size of land in Hectares of sampled farmers of buffalo owners in the Study area. According to table the coverage of 1-5 hectare category is 88%, in 5-10 hectare category is 6%, in 10-15 hectare category is 3%, while 15-20 hectare category is 2% and above 20 hectares 1%. Majority farmers have been found below 5 hectares land and very less in above 20 hectare land category. It also shows that economic holding farmer percentage is less than the non-economic holding farmer in the study area. Through heredity division the land divided into small pieces generations after generation in the study area which affect the productivity of farmers in the study area. The correlation value between various size of land and buffaloes' number was- .045 and was not significant at .05 levels. The correlation value shows that if one unit increase occurs in the land then -.045 changes will be occurred in buffaloes' number in the project area. The real reason of negative change is loan not given to tenant community. The tenant community lives near the farm and supervise the farming activity very well than the other category while due to lack of finance they do not obtain such production which is necessary.

Table 6 Type of Credit Availed by sampled Farmers of Buffaloes owners in the study area

Type of Credit	No	%
Short Term	42	42
Medium Term	56	56
Long Term	02	02
Total	107	100

Table 6 Indicates type of credit availed by sampled farmer in the study area. According to table the share of short term by sampled farmers is 42%, medium term 56% and long term

2%. The table explains that the medium term exposure is higher than the other followed by Short term while long term counted only 2%. It also shows that the economic holding farmer is less than the other farmer. The long term credit share is very little in the project area. It shows that the bank do not focus highly on long term credit and link extremely with the medium term credit followed by short term. The data explain that the capability of long term credit investment in the project area is low and the farmer did not apply to this credit excessively while the farmers take high interest in the other two types of credit due to their economic holding and capability in the study area.

Table 7 Total Amount (Rs) of Credit Dispersed by ZTBL among sampled farmers in the study area

Type of Credit	Amount	%
Short term	4040000	16
Medium term	20516000	80
Long term	1180000	04
Total	25736000	100

Table 7 indicates the total amount of credit dispersed by ZTBL among sampled farmers in the study area. According to table the short term allocate 16% amount to sampled farmers, medium term 80% and long term 4%. The medium term amount is more than the other terms followed by short term. The long term credit share is very little in the project area. It shows that the bank do not focus highly on long term credit and link extremely with medium term credit followed by short term. The data explains that the capability of long term credit investment in the project area is slow and the farmers did not obtained this credit excessively while the farmers take high interest in the other two types of credit due to their economic holding and capability in the study area.

Table 8 Continuation status of the Micro finance program by sampled farmers in the study area

Particular item	No	%
Yes	73	73
No	27	27
Total	100	100

Table 8 reflects the continuation status of the micro finance program by sampled farmer in the study area. According to table 73% has still continued the finance program of ZTBL and appreciated this program for development of agriculture while 27% have discontinued this program due to tension of payment and religious pressure in the community.

Table 9 Average Buffaloes number, differences, %changes, t value and P value of the sampled respondents in the study area

Name of livestock	Number after credit	Number before credit	Differences	%changes	Degree of freedom	t. value	p.value
Buffaloes	1.87	1.91	-0.04	-2	99	-.180	.857

Table 9 reveals the average number of buffaloes, difference, % changes, t and p values of the sampled respondents in the study area. According to table the number of buffaloes after credit is 1.87 and before credit is 1.91, differences is -.04 % changes is-2 % while t value is -.180 and P value is .857. The result is not significant and shows that micro finance program has not positive effect on buffalo number in the study area. It also indicate that the farmer have gained the loan from ZTBL while not spent huge amount in buffaloes production in the study area and shows that ZTBL has played no part in the development of buffaloes production. Saboor et. al (2009) also conducted the study with credit and without credit farmer in district Rawalpindi in the barani area and found the buffaloes number same in both situation while return value of the without credit was found greater than the credit farmer. However crops production per acre wheat production was found greater than the without credit farmer. Mohisin et al (2011) told that before availing credit the average cow number was 1 while after availing credit the number increased to 2, so there also the credit shows a positive effect on buffalo number and so credit play crucial role in the development of cow production.

Table 10 Annual average cost of buffaloes in rupees, differences, % changes, t and p values of the sampled respondents in the study area

Name of Livestock	Average cost after credit	Average cost before credit	Differences	% Changes	Degree of freedom	t value	P value
Buffaloes	90810	48730	42080	86	99	4.497	.000

Table 10 indicates the annual average costs of buffalo in rupees, differences, % changes, t values of the sampled respondents in the study area. According to table the average annual cost after credit was Rs.90810 and before credit was 48730 while % changes was 86%, t value 4.497 and P value is .000. The result is highly significant at .05 levels and shows that average cost after credit is very higher than before. This high cost has affected the activities of the farmer in buffaloes raring because due to high cost buffalo owners could not capable to rare more buffaloes in the study area.

Table 11Annual average returns per Buffaloes after and before credit in rupees, differences, % changes, t value, and p value of the sampled farmer in the study area.

Name of livestock	*Average annual production return after credit*	*Average annual production return before credit*	*Differences*	*% Changes*	*Degree of freedom*	*t value*	*.P value*
Buffaloes	*149860*	*100760*	*49100*	*49*	*99*	*3.067*	*.003*

Table 12 reflects the annual average return per buffaloes after and before credit, differences, t value and P value of the sampled farmer in the study area. According to table the average annual return after credit was Rs.149860 and before 100760 and % changes was 49%, while t value is 3.067 and P value is .003. The result is highly significant at .05 level and shows that the average annual return of production after credit is higher than before due to inflation and due to high cost of the buffaloes. Before the annual costs of buffaloes were less while now it is so high that the farmer is not capable to earn more buffaloes due to high cost. Mohsin et. al (2011). Studied that the livestock return without credit per animal was Rs.42000 while with credit was Rs.44385 and change was 6%, so the credit supply increased the return of the farmer as well as number of the animal while in present study return was increased 49 % due to inflation and quality breed but the number of buffaloes decreased to 2%.

Table 13Problems and Constrained Faced to sampled Farmers of buffaloes owners by Bank in taking credit in the study area

Problem	Yes	%	N0	%	Total	%
Non availability of credit in time	75	75	25	25	100	100
Complication of Passbook preparation by Patwari Halqa	70	70	30	30	100	100
Non Availability of collateral	70	70	30	30	100	100
Non-Co operation of Bank Staff	70	70	30	30	100	100
Amount less than requirement	100	100	00	00	100	100
Bank away	70	70	30	30	100	100

Table 13 reveals the problems and constrained faced to sampled farmers by ZTBL in taking credit in the study area. According to table 75% told that the credit was not available in time, 70% claimed that the passbook preparation was very complicated and patwari Halqa did not prepare the passbook in time. They demand for money and used delay tactics in preparation of the passbook. Influential farmers very easily prepare the passbook

while poor farmer faced problems in passbook preparation. However 70% also reported that the collateral availability in the study area was also a great problem. No one was ready for signing the credit form, due to police arrestment in failure of payment. Seventy percent told that the bank staff did not cooperate with us and met with rude behavior in time of case processing. Hundred percent claimed that the bank provided credit on the basis of their land, if the land is more then they pay more amount, when less then pay to us less amount and not according to their requirement while 70% reported that the bank is away from them and due to engagement in farming activities, they faced problem in loan processing cases due to distance.

CONCLUSION AND RECOMENDATIONS

The study finally concluded that ZTBL Finance program has no effects on the buffalo's number in the study area. There are no high differences between before and after credit in the buffalo' number. The paired t-test result is also not highly significant and shows that the buffalo number before and after is the same. The annual cost and return of paired t-test of both is highly significant at .05 level confidences. Due to high cost the price day by day increasing which affect the stamina of the farmer negatively to rare more buffaloes on their farms. The return from the milk production was estimated higher than before. The study also concluded that the bank did not provide huge loan to farmer for uplifting buffaloes production while highly focus on crop productivity in the study area.

Recommendations are given for future policy implication in the study area.:-

- Interest rate should be decreased.
- One window operation policy should be applied by ZTBL.
- Amount should be provided in kinds by bank.
- Special program for buffalo's maximization should be arranged.
- Marketing system should be developed by government in the project area.
- Quality breed facility should be provided in the study area.
- Loan amount should be given according to farmers requirements.
- Islamic principles should be applied by ZTBL, to reduce the religious tension of farmers in the study area.
- Check and balance is required by bank organization.
- Output and input price must be stabilized in the study area by government.
- Payment period should be increased by bank.
- Bank staff cooperation with farmers is requested.
- Farm record should be kept by farmers and bank organization, for future strategy.
- Sada Bahar Program should be revised by state bank of Pakistan.
- Load-shedding problem of electricity should be solved by Govt in the study area.
- Diesel price should be decreased by govt for uplifting agricultural production.
- Qualified Staff should be appointed by Bank Directorate in the bank.
- Monitoring cell should be developed.
- Local staff should not transfer to local bank in the study area.
- Veterinary hospital should be established in the study area for animal treatment.
- Grazing field should be developed in the project area for buffaloes production boosting.

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