THE EFFECT OF AGRICULTURE LOANS ON FARMERS LIFE STANDARD IN DISTRICT DERA ISMAIL KHAN

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ABSTRACT

In Pakistan, especially district Dera Ismail Khan different financial institutions are extended agriculture loans to farmers for agriculture development. Farmers in district Dera Ismail khan are mostly living below the line of poverty. These farmers cannot fulfill all agriculture requirement from limited sources. The aim of the study was to show the effect of agriculture loans on farmers life standard in district Dera Ismail khan. The primary data collected through questionnaire/semi structure interview and SPSS software was used to analyzed the collected data. The total sample size were 270 farmers. The analysis was done with the help of correlation, regression, t-test and one way ANOVA. The correlation show the positive association between short term loans, medium term loans, long term loans with farmers life standard. In correlation highest positive association between short term loans and farmers life standard their value was r = .463. The regression analysis show the change in dependent variable with the effect of independent variables. The R^2 .336 of farmers life standard, which show all three predictors explaining 34% variation in farmers life standard. t-test and one way ANOVA show that there was positive impact of demographic variables on main variables.

Keywords: *Short Term Loans, Medium Term Loans, Long Term Loans & farmers life standard*

INTRODUCTION

Developed Banking system is indispensable for economic growth of each and every nation throughout the world because banking sector plays an important role in the development of economy. The basic function of the bank is to pull savings from the peoples, organizations and surplus units playing mediating role and forwarding it as advances, loans and cash credits to deficit units for different purposes. There are different banks in banking sector of Pakistan playing different functions. Some of these banks are specialized providing special facilities in their specialized areas like Zari Tarqiathi Bank Limited (ZTBL), industrial development bank (IDBP). ZTBL is providing agriculture loans facility to farmers for agriculture development. The agriculture loans are that loan who are provided to needy farmers for agriculture purpose. Agriculture loans is used for seeds, fertilizers and agriculture assets etc. In Pakistan ZTBL, HBL and NBP etc provide the agriculture loans to farmers. Agriculture loans are provided for short term, medium term and long term. Seventy percent of GDP is contributed by sector, but farmers in Pakistan are poor. They need some support for agriculture development.

Pakistan is an agriculture country and its main labor are engage with agricultural sector. Pakistan main exports are highly supplies to international market such as sports goods, synthetic textiles, rice, leather and cotton. Poverty is international problem and in Pakistan must poverty exist. The basic target of Pakistan to minimize the ratio of poverty. Rural people are try to migrate from rural areas to urban for the purpose of facilitated living standard. To stop the migration process government should join those policies who provide facility to poor people on their own door. The poor people are can capable rise living standard because they have limited resources. Microfinance is an important tool for upward the poor people standard and decline poverty from country. It also minimize the financial problem of the poor people as well as social and ethical problem on general peoples (Bashir et al, 2010). Agriculture loans play an effective role for the development of agricultural sector. One favorable strategy for poverty elimination is to qualitative use of agriculture inputs. This can only possible by increasing opportunities for small and medium farmers to develop agriculture productivity. Agriculture loans enables small and medium farmers to purchase latest farming technology for increasing agriculture production and develop their own life standard. (Nosiru & Omobolanle, 2010).

Microcredit are provided to rural farmers with the intention to increase the productivity level of farmers. The credit is used for the purpose to increase the income of farmers. Punjab Rural Support Program extends agriculture credit to the rural poor farmers who have main source of income is agriculture sector (Seemi, 2009). Agriculture loans provide the financial support to the farmers community. The government considers agriculture credit is an important instrument for improving in production level. Credit demanding farmer have shown-increasing trend (Khan et al, 2007). The agriculture loans performs the effective influence for the development of agriculture output in Pakistan. The government analysis the loans policy for the development of small farmers. They provide credit on easy terms and conditions (Iqbal et al, 2003). The agriculture credit is extended to provide the relief for purchasing and implementing of agriculture equipment e.g. fertilizers, tractor and trolley etc. (Yusuf, 1984). Microfinance emphasizes the poor people to develop the business. They help in increasing the self-confidence and self-working motivation. Microfinance helps the poor to avail food, income, education, shelter and health facility (Adams & Bartholomew, 2010).

Agriculture credit play an important role in the economic development of small and medium scale farmers. It motivates the people to engage in self-employment. The credit is provided to poor farmers for expansion of business. The loans are expended on easy term and conditions. Microfinance helps the farmers to generate self-income activities (Rahman & Rahim, 2007). Agriculture sector play an important role in the improvement of national income of Pakistan. They provide raw materials to different industries e.g. textile industry of Pakistan. In Pakistan 45 percent employment are engage with agriculture sector. The loans is main source for agriculture development (Bashir, 2009). The approach of poor farmers for availing agriculture loans are

limited. They mostly missed to reach the continuous loans facilities. So the small and medium farmer development process is become slow (Raman et al, 1995). Financial Institutions are extended loans to farmers for agricultural improvement. They increase the use of agricultural equipment and also increase the output of agricultural productions. The development of agriculture increases the employment opportunities for labor forces and also reduces the price of agriculture product due to large scale supply of agriculture products (Zohir et al, 2004). There is no agriculture farming without any money. Every farmers that try to explore his agriculture business activities they must need cash. The farmers cash demand accomplished through extension of credit, the small farmers need small amount of agriculture credit. The success of microcredit depends upon their interest rate and extended institution services (Rooijakkers, 2010).

Objectives of Study

- To analyze the improvement in farmers life standard due to agriculture loans.
- To show which type of loans is more appropriate for farmers.
- To analyze the relationship between independent and dependent variables.

Hypotheses of Study

H1 : All the Predictors are positively associated with Criterion Variable.

H2 : The Research Variables Explain Variation in the Criterion Variable.

LITERATURE REVIEW

Jehanzeb (2008) analyze the study to show the effects of agriculture loans advanced by Zarai Tarraqiati Bank on farmers production and income. Farming was base for increasing GDP and reducing unemployment from the country. Their analysis show that agriculture loans advanced by ZTBL was positive effects on farmers life standard. Gul & Khan (1993) show the role of agriculture credit extended by Agricultural Development Bank of Pakistan for farmers community in District Mardan. They elaborate that most credit was captured by large farmers. The ADBP extend loans in the shape of small, medium and long terms loans. They indicated that small farmers repaying ability was better as compared with large farmers. Arif (2001) analyze the study to show the effects of small scale loans was expanded by ADBP on agriculture productions in selected villages of Attock District. He analyzed the effects of credit on wheat, vegetables, and cropping productions. All farmers utilized the loans to availed inputs, which enhance cropping productions. The most notable production was the wheat production. Due to proper utilization of agriculture loans, they increased farmers income which was lead to upward farmers life standard. As whole agriculture loans was made positive effects on farmers production levels.

Mbata (1991) analyzed effects of supervised Agricultural Credit scheme (SACS) on agricultural development in Nigeria. In this study researcher comparative analysis of two different groups of farmers one who availed formal source of agriculture loans and other who availed informal

source of agriculture loans. The result of the study indicated that those farmers who approach to SACS increased farming expenditure and obtain higher output from cultivated land as compared to those farmers who obtain agriculture loans from informal sources. Zuberi (1989) analyzed the study to show the effects of agriculture credit on farmers development in Pakistan. In this study the researcher used time series data for the period of 1956 to 1986. The result revealed that farmers development depend upon proper and better utilization of latest agriculture technology for farming. Rehman et al. (2014) analyzed the study to show the impact of agriculture credit advanced by Zarai Taraqiati bank limited's on agriculture productions in Pakistan. The analysis of the study was done through logit regression. The study was based on primary source of data. Result of the study declared that education of the famers, income of the household, agricultural credit, Household size, short term and long term loans were positive impacts on agricultural production.

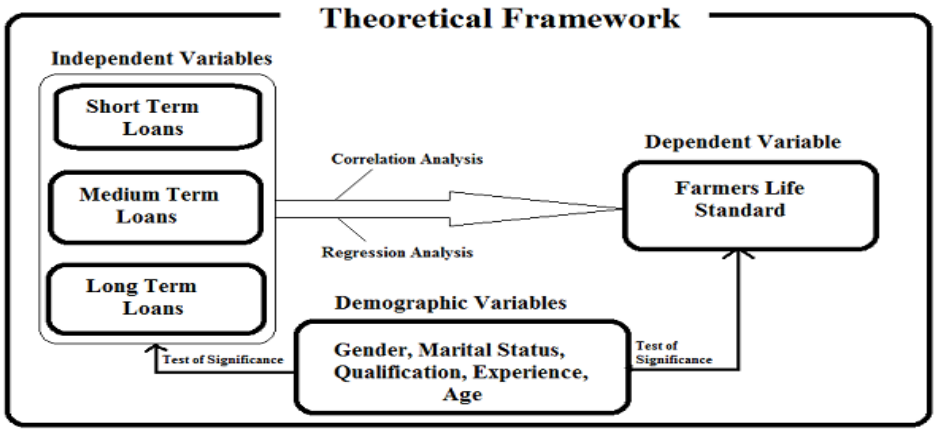
Qureshi & Shah (1992) analyze the rural credit policies in Pakistan. The analysis of result show that formal sources of credit were expanded as compared to informal sources of credit in Pakistan. The association between credit and agriculture value was found below than expectation value. Malik (1989) stated that institutional source of credit had more profitable for agriculture sector as compared to non-institutional source of credit. Institutional source of credit terms and conditions are complex. Small farmers had not approach to institutional source of credit. Summer et al. (2012) investigated the impact of Government expenditure, social outcomes on farmers agriculture production standard in Tanzania. In this study the researcher focuses on health level, marginal production, agriculture inputs, farmers food pattern and education expenditure on farmers children. The researcher was used covariance structural model to investigate the impact of independent variables on dependent variables. Their study result show that Government social expenditure was positive effects on education, food pattern and health of farmers. Their study also show that short term agriculture loans also increasing their production level. Idress & Ibrahim (1993) analyzed the role of agriculture loans in the development of agriculture sectors. The study investigated that the relationship between farmer's income levels and their adopted agriculture technologies.

In this study the data were collected from 12 different union councils in Karak district. Their result identified that 62.5% farmers had improved farms after receiving agriculture loans. The study also showed the differences among farmers about saving behavior based on education. Herani et al. (2007) analyzed that microfinance was very important strategy for survival of rural agriculture families in developing countries. It proof that micro credit schemes was powerful instrument for declining the poverty rates by improving the educations, which have ability to increase income and adopt new technology in agricultural sectors. Xinshen (2010) analyzed the study to identify the role of agriculture production on rural farmers development in Ghana. In this study the researcher collected the data through questionnaire. The researcher used random

sampling technique to analyzed the data. Their analysis show that agriculture loans was positive effects on farmers production in Ghana. Otunaiya et al. (2014) study was examined to show the effects of short term agriculture loans on poultry farmers in Nigeria. In this study researcher collected primary data from 107 respondent through cross-section survey. All the data collected through random sampling technique. The data was analyzed through quantitative and descriptive technique. The study show that majority farmers were young age and 88.8% respondent were males. The maximum respondents are educated and married. The researcher used logit regression model to analyzed the collected data. Their result of the study declare that volume and income of farmers were direct impact on poultry extension.

Figure 1.1 Theoretical Frameworks

Theoretical framework is a model or scheme which shows the relationship/association between variables of the study, cause and effect through regression analysis and impact of demographic variables on main variables. Below is the schematic diagram of the theoretical framework of this study:



RESEARCH DESIGN

This section covers all aspects regarding the population and sample size, method of data collection, tools for data analysis, and Research model specification.

Population and Sample Size

The populations of this study were all farmers of District Dera Ismail Khan who took agriculture loans from Zarai Taraqiati Bank Limited (ZTBL) and different commercial banks (National Bank of Pakistan, Habib Bank Limited, Bank of Khyber, Khushhali Bank Limited & Muslim Commercial Bank). It is difficult to collect data from whole population. The researcher has selected the numbers of respondents within the population. The researcher selected the sample size with the help of well-known formula Kasley and Kumar (1989).

Formula: $n = Z^2 V^2 / d^2$

Where

n = Sample size

Z = Normal variate or confidence level about the limit of the error (95%) and constant value for it is 1.96

V= assumed variability with respect to agriculture loans availing farmers i.e. (50%)

D = Acceptable error margin in the estimates (6%)

$$n = \frac{(1.96)^2 \times (50)^2}{(6)^2} = 267 \text{ say } 270$$

So for the present study a sample size were 270 respondents. Furthermore the respondents were selected based on simple random sampling technique.

Method of Data Collection

In this research, the researcher used the questionnaire/Semi structured interview method for data collection from loanee farmers. When the farmers were literate then researcher used the questionnaires method for date collection on the other hand When the farmers were illiterate then researcher used Semi structured interview.

Tools for data analysis

The researcher was used different inferential tools for testing the research hypotheses, it includes correlation, regression and tests of significance.

Specification of Research Model

In this research study, the researcher used multiple regression model to find out the effect of agriculture loans on farmers life standard. Basic Research Model was following.

$Y= \alpha + \beta_1(X_1) + \beta_2(X_2) + \beta_3(X_3) + e$

Specific Research Model was following.

$(FQ) = \alpha + \beta1(STL) + \beta2(MTL) + \beta3(LTL) + e$

RESULTS AND DISCUSSION

To check the reliability of the instrument used in questionnaire/semi structured interview for collection of data from the respondents of this study, Cornbrash‟s alpha was used. In social sciences, the lowest acceptable value is 0.6. In the below table our results are concerned, which show the reliability statistics of Cornbrash‟s Alpha value for 26 items that measured three independent variable i.e. short term loans, medium term loans and long term loans and one dependent variable i.e. farmers life standard was .803, this implies that our instrument was reliable for data collection.

Reliability Statistics

Cronbach's Alpha	Number of Items
.803	26

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Short Term Loans	270	1.00	4.00	1.8678	.50995
Medium Term Loans	270	1.00	4.33	1.9078	.62526
Long Term Loans	270	1.00	4.67	2.0656	.72626
Farmers Life Standard	270	1.00	4.00	1.9833	.51375
Valid N (list wise)	270				

Hypothesis 1: All the Predictors are positively associated with Criterion Variable.

		Short Term Loans	Medium Term Loans	Long Term Loans	Farmers Life Standard
Short Term Loans	Pearson Correlation	1	.314**	.160**	.463**
	Sig. (2-tailed)		.000	.005	.000
	N	270	270	270	270
Medium Terms Loans	Pearson Correlation	.314**	1	.367**	.414**
	Sig. (2-tailed)	.000		.000	.000
	N	270	270	270	270
Long Term Loans	Pearson Correlation	.160**	.367**	1	.358**
	Sig. (2-tailed)	.005	.000		.000
	N	270	270	270	270
Farmers Life Standard	Pearson Correlation	.463**	.414**	.358**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	270	270	270	270

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The above table show the association between independent and dependent variables. Their result indicated that all r values has positive and p values are less then critical value (P<0.05). So H1 has accepted.

Hypothesis 2 : The Research Variables Explain Variation in the Criterion Variable.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.463[a]	.214	.212	.45611
2	.545[b]	.297	.292	.43217
3	.580[c]	.336	.329	.42075

b. Predictors: (Constant), Short Term Loans, Long Term Loans

c. Predictors: (Constant), Short Term Loans, Long Term Loans, Medium Term Loans

Table of ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	16.921	1	16.921	81.334	.000[b]
	Residual	61.996	298	.208		
	Total	78.917	299			
2	Regression	23.446	2	11.723	62.765	.000[c]
	Residual	55.471	297	.187		
	Total	78.917	299			
3	Regression	26.516	3	8.839	49.927	.000[d]
	Residual	52.401	296	.177		
	Total	78.917	299			

d. Predictors: (Constant), Short Term Loans, Long Term Loans, Medium Term Loans
a. Dependent Variable: Farmers Life Standard

Coefficient of Regression

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.112	.100		11.105	.000
	Short Term Loans	.466	.052	.463	9.019	.000
2	(Constant)	.774	.111		6.988	.000
	Short Term Loans	.420	.050	.416	8.450	.000
	Long Term Loans	.206	.035	.291	5.911	.000
3	(Constant)	.642	.112		5.706	.000
	Short Term Loans	.361	.050	.359	7.182	.000
	Long Term Loans	.155	.036	.220	4.307	.000
	Medium Term Loans	.181	.044	.221	4.165	.000

a. Dependent Variable: Farmers Life Standard

Multiple regression analysis were used to check the Hypothesis 2. The result from the above tables show that F= 49.927 with R Square .336 which is highly significant at .000 level of significance. The R square .336 i.e. 34 % bring changes in farmers life standard in D.I. khan. The Beta values were positive and significant t .000 level of significance. So this study indicated that agriculture loans has positive and significant impact on farmers life standard in District Dera Ismail Khan. thus we accept Hypothesis 2. Similarly to understand the impact of demographics variables on main variables. Their result show that all demographic variables i.e. gender, marital status, education, age and experience were significant effects on all main variables.

DISCUSSIONS

Many research studies for example Bashir et al. (2010) Riaz et al. (2012) Ahmad et al. (2015) Saad et al. (2014) Iqbal et al. (2012) Jehanzeb (2008) Arif (2001) Zuberi (1989) and Rehman et al. (2014) have been conducted to show the impact of agriculture loans on farmers life standard. In these studies like Bashir et al. (2010) Iqbal et al. (2012) Ahmad et al. (2015) Jehanzeb (2008) Arif (2001) Zuberi (1989) and Rehman et al. (2014) have shown that agriculture loans were positive effects on farmers life standard. The present study have been conducted to show the

effect of agriculture loans (short term loans, medium term loans and long term loans) on farmers life standard in district Dera Ismail Khan. The result of the present study show that there are positive relationship between predictors and criterion. Their high relationship value between short term loans and farmers life standard i.e. r = .463** and p value is .000. The regression analysis show that agriculture loans has positive impact on farmers life standard. Their R Square value is .336, which show that predictors bring 34% changes in farmers life standard in district Dera Ismail Khan.

CONCLUSIONS

In the light of this study, it can be concluded that agriculture loans play an important role in the development of agriculture sectors and farmers living standard. The study has analyzed to show the effect of agriculture loans on farmers life standard. It enables to understand that which type of agriculture loans has more effects on farmers life standard in district Dera Ismail khan. Different banks extended agriculture loans i.e. short term loans, medium term loans and long term loans to farmers for the purpose of increasing agriculture productions. The farmers life standard directly related with agriculture productions, because farmers life standard improved when their agriculture productions increased. The study confirmed that short term agriculture loans has bring more changes in farmers life standard as compare to medium term and long term loans in district Dera Ismail Khan.

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