THE AVAILABILITY OF CREDIT TO SMALL AGRICULTURE PROJECTS: IMPORTANCE, CONSTRAINTS AND OPPORTUNITIES, IN KHYBER PAKHTUNKHWA PAKISTAN

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ABSTRACT- Despite of 21% contribution to GDP and nearly 44% share in country's employment, agriculture is thought as a deprived sector in Pakistan's economy. Statistics shows that agriculture sector has high credit (funds) absorption capacity. Still, it doesn't have sufficient funds sources, despite of healthy contribution in country's GDP. It is among mandatory factors, for all sectors of economy, to have a strong financial background for success. For the purpose, SBP is striving to get managed and enable sufficient flow of funds to agriculture sector, to produce high yield, resulting in farmer's prosperity and hence the nation. A brief discussion has been made in this study about the demand and supply of credit and its sources available to farmers for financing small agriculture projects. A case study of district Dera Ismail Khan and Tank was made, by getting in contact with small farmer of the area. The analysis showed that the dependent variable i.e. the most attractive funds sources for agriculture sector, have very significant relationship between hurdles in the way of formal credit and behavior of bank officials. So, it is strongly highly recommended that government should take remedial measures like providing discounted interest rate, extending personal guarantee loans and broadening the out-reach circle by opening new branches of ZTBL in faraway areas of the country and encourage private sector to finance small and medium farmers agriculture sector.

Keywords: Formal Credit, Financial Institutions, Small Farmers, Micro Financing, Agriculture Financing

I. INTRODUCTION

Agriculture is a vital source of production of foods for community. Statistics from International Finance Corporation shows that 50% increase in agricultural production will be required by 2030 to feed the world population and world's 450 million smallholder farms will play an increasing role in food production (Khanna & Solanki, 2014). A report published by GIZ describes that international donors, politicians, specifically and especially G20 countries are striving to streamline the agriculture finance to meet the growing needs of food consumption (Engerlber, 2020). According to Agricultural Credit Department (ACD) of State Bank of Pakistan (SBP), agriculture contributes almost 1/4th of the country's GDP, contributes around 60% of exports and employs 44% of country's labor force (Economic Survey, 2019). Financing schemes for agriculture sector has been initiated by SBP because of financing shortages to the sector. According to SBP (State Bank of Pakistan) there is 6.6 million farmer's population in Pakistan, out of which only 2 million borrow funds formally. Out of total farmer's population 84% are small farmers and most of them rely on informal credit bearing extra ordinary interest rate (SBP, 2012).

SBP has created a group named "Development Finance" with the aim of boosting up the volume of financing for agriculture, small and medium enterprises, microfinance, infrastructure and housing. Agriculture Credit Department (ACD) has been established by the SBP to make policies/schemes to finance agriculture/rural sector, setting targets and to ensure the fully implications of those polices (SBP, 2018).ZaraiTaraqiati Bank Ltd. (ZTBL) is one of the leading institutions for proving funds for agriculture sector in Pakistan. It provides a variety of financial products for investing funds in agriculture sector with the aim to empower the farmers serving said sector. The bank has been running number of schemes to outreach the farmers like, supervised credit scheme-based on Mobile Banking and hence, helps the government in attaining the annual credit distribution target to the farmers (ZTBL, 2012).

Major Gap
Keeping in view the growing need of agricultural products in the whole world including Pakistan, finally a need arises to point out and bridge the major flaws and gaps between agriculture sector and financial institutions because only 45% of financing demand of agriculture sector is being met by the financial institutions in Pakistan (Where is the reference). So, a model is to be developed to find out the gap between the two i.e., financial institutions and small farmers, which could be practically implemented to

widen the credit circle (supply) of financial institutions hence increasing the production capacity of agricultural sector and result in increased profit for both sectors. Study is to be conducted with the aim of finding the effect of major factors upon the supply of agriculture credit. Factors were derived from the previous studies made in this context.

II.   LITERATURE REVIEW

In Pakistan, most of the problems in formal credit blow up from two main reasons; first one is interest rate because in Pakistan majority of people are Muslim and as we know that interest (Riba) is prohibited in Islam due to which people do not want to take loan having interest (Yusoff& Aziz, 2013). And the second one is technical deficiency of bank officials (Wallace et al., 2011) which leads to complex bank procedure and non-availability of appropriate product for farmers (especially for small farmers). At lower population densities and poor infrastructure (transport, power and communication) areas, ultimately result in high transaction costs for rural sector financial institutions. This reduces their profitability due to increased cost of delivering financial services (Abedullah, 2020). So, the return of rural financial enterprises generally does not permit them to serve the rural agriculture sector. A study initiated by, Pervaiz et al., (2011) collected primary data in 2007 to find constrains in disbursement of loans to agriculture sector and the possible ways available to get loans. His study based on multistage sampling of data collected from Khyber Pakhtunkhwa, Pakistan. By interviewing 291 respondents, he concluded that major hurdle for farmers to get loans is presenting grantee before bank. Other factors which respondents elaborated includes high interest rate, complicated (time consuming) bank procedure and some respondents also highlighted religious bright ways because Riba (Interest) is prohibited in Islam. Brohi, (2010) also reported same issues of small farmers while approaching agriculture credit.

As far as, the complicated bank procedure is involved, it is seen that farmers presume to have a very quick loan processing which must end in one or two days because they don't want to come to bank again and again for little amount and land also require quickly dampen. Shah et al., (2008), conducted a research to find out the impact of institutional credit on the farm productivity. A sample of farmers (borrowers and non-borrowers) from District Chakwal (Pakistan) was drawn by him. His finding showed that there is positive relationship between agriculture credit and farm productivity. He further highlighted the problems of high interest rate and complex borrowing procedure adopted by the bank i.e ZTBL. Bashir, et al., (2008) conducted a study in the District of Faisalabad, Pakistan, with a view to find out the hurdles and possible options in the way of agriculture credit. The whole of district was divided into six zones and from each zone two villages were selected randomly. The results showed that 77% of respondents were complaining high interest rate, nearly 72% were in the view that loan is not provided in time, 61% respondents said bank procedure is complex and lengthy. Other major factors include security problems, rigid term and conditions, non-cooperation of bank officials. Same has been discussed by Rehman, (2020).

To encourage the formal credit in Pakistan, the interest rate must be subsidized so that small farmers could consult to financial institutions for farm credit. Doing this will result in higher saving and farmers will better able to repay their loans, higher consumption and better household welfare. Our current banking system is too rigid and it only facilitate rich where poor people cannot either access to banks or he is totally ignored of being poor. And if he is able to get loan by any mean it cost higher than a landlord who gets the subsidized loan which cost less than nominal interest rate (Khan et al., 2020). Eze et al., (2010) studied the agriculture financing policies by the government of Nigeria and critically analyzed their effect over rural development. Number of policies, programs and schemes has been implemented by the government but despite of all these, inefficiency and ineffectiveness prevail in financial market. The recommendations made by author includes formulating financing policies by targeting agricultural output, training and capacity building for staff of financial institutions, reducing the transaction cost of financial instruments to encourage more borrowers, simplifying the operational procedures for getting loans along with relaxing the credit terms such as interest rates, eligibility criteria and etc. Quartey P. et al., (2012) prepared a report about a project initiated by International Growth Centre, on agriculture financing and credit constraints, discussing the role of intermediaries in marketing and credit outcomes in Ghana. According to report, Ghana is an agriculture country, provides employment to 55% of whole population with 40% in GDP.

Beside the importance of agriculture sector and its share in the economy, the small and rural farmer's poverty index is very high (Khan, et al., 2019). The number of factors, promoting minimal efficiency of agriculture sector, includes poor infrastructure, inappropriate government policies, and inadequate

supply of credit (Brohi, 2010). The conclusions drawn by the author reveals that farmers should be educated, produced more credit sources and also marketing channels. The results further stated that to enhance the bargaining power and ability to obtain loan from formal financial institutions the cooperatives should be established. Mohan R. (2006), in its research paper discussed the agriculture credit issues, future agenda and its current status in India. Although the amount of agriculture credit and number of borrowers are increased with increase of financial institutions strength and efficiency, as the time passed but still many weaknesses persist in the effectiveness and efficiency of these institutions. With the passage of time the role of money lenders and informal agencies declined but the institutional credit functions increased. The conclusions drawn by the researcher from review of performance of agriculture credit in India reveals that despite increase in flow of institutional credit, several gaps and hurdles are still prevailing in the system like less proportion of agriculture credit is provided to small and medium farmers, inefficiency of medium of exchange, partial deposit mobilization, long-term lending and over dependence on agriculture credit purveyors.

III. MATERIAL AND METHODS

Constructs and Sub-Constructs
In the study three main constructs were taken into account; first construct was about "Most Attractive Fund Sources (MAFS)" which include four sub-constructs i.e. personal savings, friends & family, side business and bank. This first construct MAFS was regressed asdependent variable in the study. Second, construct considered in the study is "Problems while Approaching Formal Credit (PIFC)". In which we tried to categorize into four sub-constructs i.e. time consuming, complex bank, re-payment schedule and unavailability of sources. Third construct which was studied is "Behavior of Financial Institution's Officials (BFIO)". Four kind of behavior was studied i.e. rude, friendly, neutral and overlooking.

Hypotheses
Two hypotheses were developed to find out the relationship between dependent variable i.e. Most attractive fund sources and independent variables i.e, Problems in approaching formal credit and Behavior of financial institution's officials.

Hypothesis 1
H0:   Factors of MASF are not related with the factors of PIFC
H1:   Factors of MASF are related with the factors of PIFC

Hypothesis 2
H0:   Factors of MASF have no relationship with factors of BFIO
H1:   Factors of MASF have relationship with factors of BFIO

Sample Data and Analysis
A sample of 150 small farmers was made available for the respective study from the population of small farmers' i.e nearly 20,000 in district of Dera Ismail Khan and Tank. For this purpose, list of all Union Councils was made available in both districts, which indicated a number 21. And sample of farmers was made available by reaching them individually.Data was collected through a closed end questionnaire cum pre-structured interview, from the small farmers only (with cultivated land of less than 12.5 acre). As our respondents were mostly fewer literate persons so they were personally visited and each of them were asked questions individually. The data was made un-biased by simply formulating closed end questionnaire.

The statistical analysis technique was used such that it could explain maximum variation in the variable and their relationship. For the purpose a book "Statistics for Management and Economic Abbreviated" written by Gerald Keller was consulted. As we know that for nominal data cross tabulation technique for Chi-Square test of Contingency Table is used, as most appropriate technique, to analyze relationship between two or more nominal variables having two or more response categories. In our statistical data, we have one dependent variable with two independent variables and intervening variables.In Chi-Square distribution the rule of thumb is the when the observed value of Chi-Square is greater than tabulated value, we will reject the null hypothesis and vice versa. Researcher regressed dependent variable over independent at 5% significant level using SPSS.

IV. RESULTS AND DISCUSSIONS

A. Problems in Approaching Formal Credit

In above table the relationship between most attractive fund sources has been tried to discussed with the most influential variable in our study i.e. Problem in approaching formal credit. For thispurpose, Contingency Table for Chi-Square has been prepared to find-out the inter-dependence of both variables. Following hypothesis was prepared:

H0:   Factors of MASFare not related with the factors ofPIFC
H1:   Factors of MASFare related with the factors ofPIFC

From the contingency table 1, it is clear that most of the respondents use informal sources for credit i.e. friends and relatives. And they also claim that they don't have sufficient resources to avail formal credit sources. From un-availability of sources means they do not have any former contacts with Financial Institution's officials, resources to repay loans in case of default and non-provision of guarantor. Same has

Table 1: Contingency Table - Problems in approaching formal credit						
Expected Count		**Problems in Approaching Formal Credit**				Total
		Time consuming	Complex bank procedure	Re-payment schedule	Unavailability of Sources	
Which is your most attractive fund source?	Personal savings from agri. business	2.7	3.2	6.5	14.6	27.0
	Friends & Relatives	7.8	9.4	18.7	42.1	78.0
	Side business	1.8	2.2	4.3	9.7	18.0
	Banks	2.7	3.2	6.5	14.6	27.0
Total		15.0	18.0	36.0	81.0	150.0

been reported by Pervaiz et al., (2011) arguing that farmers use informal sources for financing their small agriculture projects.The Chi-Square value at 5% confidence interval & 9 degrees of freedom get the value 16.90, which was less than tabulated value i.e. 97.50 and was sufficient to reject H0.

A very small number of farmers have stated that they have any side business or use personal saving as fund source and they generally do not avail any kind of credit, while rest of them stated that they use credit to finance their project from either of sources. It seems clear that there is sufficient credit demand in the region and most of which is being fulfilled by informal sources of credit. A study conducted by Iqbal et al., (2018) also concluded that non-agriculture income of farmers is the major source of agriculture financing.

B. Behavior of Financial Institution's Officials

In Table 2, the relationship between two variables i.e. Behavior of Financial Institution's officials and most attractive fund sources have been discussed using Contingency Tablefor Chi-Square test. It has been tried to find out that whether or not the behavior of Financial Institution's officials has any kind of relationship between fund sources available to farmers. To test the interdependence between two variables following hypothesis were tested:

H0:   Factors of MASF have no relationship with factors of BFIO
H1:   Factors of MASF have relationship with factors of BFIO

Statistics from the contingency table 2shows that nearly half of the respondents were in the view that the behaviors of financial institution's officials were neutral and some of respondents stated that officials behaved friendly. Some of the respondents were also in the view that the behavior of officials was rude or overlooking. The reason behind may be the monopolistic situations in many areas because only one or two banks are working in the adjacent areas of Districts Dera Ismail Khan& Tank. So, to make formal credit more attractive for respondents the government and top management of the institutions should take initiative to arrange seminars and on the job training to their officials. The results of this study are similar to previous studies by Shah et al., (2008); Bashir et al., (2008) Khan et al., (2020) & Rehman,

(2020). Previous studies have stated that behavior of bank officials and complicated bank procedures may also affect credit disbursement among small farmers.

Table 2: Contingency Table - Behavior of Financial Institution's Officials						
Expected Count		**Behavior of Official(s) of Financial Institutions**				Total
		Rude	Friendly	Neutral	Overlooking	
Which is your most attractive fund source?	Personal savings from agri. business	5.9	4.3	10.8	5.9	27.0
	Friends & Relatives	17.2	12.5	31.2	17.2	78.0
	Side business	4.0	2.9	7.2	4.0	18.0
	Banks	5.9	4.3	10.8	5.9	27.0
Total		33.0	24.0	60.0	33.0	150.0

The Chi-Square value at 5% confidence interval & 9 degrees of freedom get the value 16.90, which was less than tabulated value i.e. 63.97and was sufficient to reject H0 and conclude that there is significant relationship between the variables.

C.   Credit Demand, Individual's Perception and Preferred Repayment Methods
Some intervening variables has been discussed in the study, which may directly or indirectly, affect the relationship between dependent and independent variables. The intervening variables include intensity of credit demand, individual's perception about formal loans, amount of borrowing and preferred repayment methods. All the intervening variables were regress over dependent variable i.e. most attractive fund sources and their relationship was required to be found, which is shown in Table 3.

Table 3: Chi-Square Values			
Variables	**Pearson Chi-Square**	**df**	**Asymp. Sig.**
Intensity of Credit Demand	23.005	9	0.006
Perceptions about formal credit	20.85	9	0.013
Preferred Repayment Method	27.726	9	0.001
Amount of Borrowing	29.647	6	0.001

When an effort was made to find out the relationship between dependent variable with intervening variables it is revealed that there is also a kind of relationship between them. The statistics show that the intervening variables may also strengthen the relationship between dependent variable i.e. most attractive fund sources (MAFS) and independent variables i.e. hurdles in way of formal credit (PIFC) and behavior of financial institution's officials (BFIO). It has been observed that there is significant relationship between dependent variable and intensity of credit demand. It is also reported by Chandio et al., (2020) in a study that more intensity of credit demand compels farmers to approach formal credit.So, it can be inferred that when there will be high intensity for credit demand, the farmers will be more inclined towards getting loans. Moving towards formal and informal credit sources, after recognition of sufficient demand, the next point to stuck out, will be hurdles in the way of formal credit. It is seen that farmers generally need credit in every six months because the average cropping season ends in nearly six months.The amount of borrowing can also be a significant variable in modifying the relationship between dependent and independent variables because when farmers will in need of small amount to borrow, they will generally fulfill their need from resources which will be most easily available for them (Khan, et al., 2019). And they will move far away from the time consuming and most complex procedure method of getting loans. Previous studies also reported that repayment methods and credit demand play an important role for approaching formal credit (Khan, et al., 2020).

V.   Conclusions and recommendations

From literature it has been clearly absorbed that the emerging trend, to increase food production, is mainly due to increase in world population and its feeding demand and the rapid urbanization. To meet

the production demand, governments on international level, are taking initiatives to support the agriculture sector. The support may be in different aspects like, providing finance, quality seeds, high technology inputs, high production techniques and variety of quality crops. Most important from all these, is availability of finances to facilitate the rest of factors for increased productions.In Pakistan, small farmers are generally out of reach of formal credit mainly due to un-availability of collateral, high interest rate, small earning capacity, religious and cultural beliefs. The pre-described constraints occur from farmers' end. Some of the reasons are also drained out from the financial institutions' perspectives. As, the small farmers are dispersed in faraway areas of country, so reaching them may results in increase costs for financial institutions.

The data collected for analysis shows that despite of number of initiatives by SBP and international NGO's, informal credit is still considered an attractive source of agriculture credit especially by small farmers. It has also been observed that there is high credit demand among small farmers in both Rabi and Kharif seasons but there are many reasons like interest rate, religious values, provision of guarantee or collateral. There are many other reasons for non-utilization of formal credit like, non-availability of financial institutions branches in the rural areas, dispersion of farmers, non-availability of water for fertile lands (in Daman areas of Dera Ismail Khan& FR Tank), economically non-viable areas like FATA, tribal areas and Daman (West Side of Dera Ismail Khan& Tank, Pakistan).Training programs may be organized by SBP,ZTBL and BOK to train bank's officials while reaching rural or agriculture households. But still due to monopoly, bank official's behavior is still not much co-operating with small farmers. Number of complaints was circulating while collecting data and non-capability for conducting agriculture credit practice by banking professional was also pointed out.

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