Available Online
Journal of Education and Social Studies
ISSN: 2789-8075 (Online), 2789-8067 (Print)
https://www.scienceimpactpub.com/jess

DEMAND AND SUPPLY GAP OF MICROCREDIT: A CASE OF AKHUWAT FOUNDATION IN KHANEWAL

Khuda Bakhsh [1,*], Sami Ullah [2] and Saleh Sohail [3]

[1] *Professor, Department of Economics, COMSATS University Islamabad, Vehari Campus, Pakistan*
[2] *Assistant Professor, Department of Management Sciences, COMSATS University Islamabad, Vehari Campus, Pakistan*
[3] *MS Scholar (Economics), COMSATS University Islamabad, Vehari Campus, Pakistan*

ABSTRACT

Akhuwat Foundation has initiated the program of interest-free micro-credit to support the financial requirements of small farmers in various districts of Punjab. This study is designed to find out whether interest-free micro-finance is sufficient for the requirements of small farmers or whether there exists a gap between demand and supply in Khanewal district. A total of 290 small farmers were selected randomly from the list available with the office of the Akhuwat Foundation. A well-structured questionnaire was used to collect information from the farmers. The logit model was used to determine the factors affecting the demand-supply gap of interest-free micro-credit. Farm size, year of schooling, farming experience, and distance of the farm from the office of Akhuwat Foundation are important determinants affecting the demand-supply gap. Minimizing the gap between supply and demand of micro-credit would benefit the small farmers in order to improve the livelihood and welfare of the poverty-stricken community.

Keywords: Interest free micro credit; Akhuwat Foundation; Demand of interest free micro credit; Farmers; Pakistan.
** Email: kbakhsh@cuivehari.edu.pk*

https://doi.org/10.52223/jess.2024.5334
Received: June 24, 2024; Revised: September 19, 2024; Accepted: September 25, 2024

INTRODUCTION

Crop production requires substantial finance to run a farm business on modern principles of business (Ullah et al., 2024). The growth of crops depends on the provision of irrigation, modern mechanical tools, technology, and other inputs like seeds, fertilizer, and standardized pesticides. All these inputs require funds. Therefore, agriculture credit is central and pivotal in the growth and development of crop production in particular and the agriculture sector in general. In Pakistan, most farmers have access to two credit sources namely; informal and formal. Informal credit is obtained from friends, relatives, and private moneylenders. The formal credit market consists of financial institutions like commercial banks and microfinance institutions (Iqbal et al., 2015). Microfinance institutions play a major role in the economy of the country by providing various financial services including micro loans, micro-insurance and financial guidelines to the poor (Noreen et al., 2011). The provision of microfinance helps farmers and businesses to use the latest technology namely ICT at the farms (Nawaz et al., 2021). Laser land leveling and precision irrigation are some examples of ICT use in agriculture.

Considering Pakistan, the majority of farms are characterized by small landholdings. Such small farmers are in dire need of credit to increase crop productivity. Micro credit is the best option for small farmers to improve crop yield and production. An increase in crop productivity and production causes a reduction in poverty amongst farmers, leading to better access to health and education of their children and improved confidence in decision-making. Ibrahim and Bauer (2013) argue that improving crop productivity and

profitability is associated with access to credit by microfinance institutions. The absence or little access to micro-credit causes a number of difficulties in meeting their basic demands (Rahji & Abedeoti, 2010). However, small landholders have little or no access to formal credit required for purchasing farm inputs namely seeds, pesticides, fertilizers, etc. due to strict institutional policies (Khapayi & Celliers, 2016). Akhuwat Foundation has taken the initiative with the assistance of the Government of Punjab to provide interest-free agriculture credit to small farmers possessing up to 2.5 acres of landholding in different districts of Punjab province.

Although various studies are available estimating access to micro-credit to small farmers by formal institutions, interest-free micro-credit to landholders of up to 2.5 acres is a new initiative by Akhuwat Foundation in Punjab province. Akhuwat Foundation is the largest non-governmental organization operating in the province with the provision of interest-free agriculture micro-credit with very few formalities and procedural formalities. Since the initiative is new, there was little evidence on what determines the interest free micro credit supply to small farmers by Akhuwat Foundation. There is also the need to find out whether there exists a gap in the interest free micro credit demanded by small farmers and the interest free micro credit provided by Akhuwat Foundation. Demand and supply estimates help farmers and policymakers plan future activities in a better way (Bakhsh et al., 2024). Estimating the supply-demand gap of micro-credit is important to provide insights to policymakers and the concerned organization. Further exploring the determinants of interest free micro credit supply to the small farmers in the first place and then examining demand-supply gap of micro credit is useful for Akhuwat Foundation (AF) and others involved in decision-making process for the uplifting livelihood of small farmers. Such findings are very important implications for academicians, researchers, small farmers, microfinance institutions and public policymakers to help improve interest free micro credit supply towards the neglected, poverty-stricken and needy small farmers.

MATERIALS AND METHODS

Khanewal district is one of the most fertile and contributing districts in crop production in Punjab, Pakistan. Cotton, wheat, sugarcane, maize and rice are important crops in the district. Like other districts of the South Punjab, this district is also commonly characterized by small landholdings. Small landholders have very little financial resources. They seek financial resources from informal sources as formal sources are constrained due to different reasons. Akhuwat Foundation has started initiative of interest free microcredit to meet the financial requirements of small landholders.

The target population for the study included the farmers who avail interest free micro credit from Akhuwat Foundation. Data was collected from 290 respondents using questionnaires from Khanewal district. There are 12 branches of Akhuwat Foundation working in this district but only three branches out of twelve are selected for the present study. From the list of the farmers, we selected 100 farmers from each branch using a systematic random sampling method. However, we received response of 290 respondents while 10 farmers did not provide consent for providing the information and or provided incomplete information.

We used descriptive statistics to describe the socio-economic characteristics of the household head. We estimated the demand and supply gap of the interest-free microcredit by comparing the actual amount provided by the foundation and the requested amount by the farmers. In such a case, we have a binary dependent variable showing demand-supply gap and no gap. We assigned value of one to the condition when there was demand-supply gap of interest free microcredit and zero value for no gap. The econometric method i.e. logit model is used to examine different factors having an impact on the demand and supply gap of interest free micro credit. Logit model can be written as

$$P_i = Prob(Y_i = 1) = F(\beta' X_i) = \frac{1}{1 + e^{-z_i}} \quad (1)$$

$$ln\left[\frac{P_i}{1-P_i}\right]=Z_i \quad (2)$$

Where Y_i shows the observed response for the i-th observation. It implies that Y_i is equal to 1 for the respondent whose the requested interest free microcredit is approved and Y_i is zero when the requested interest free microcredit is not approved. X_i is a set of independent variables. The odd ratio is given by $\left[\frac{P_i}{1-P_i}\right]$ showing the ratio of presence of the result to the non-presence of the product. Explanatory variables used in the logit model include family size, marital status, year of schooling, land size, livestock, age and farming expenses and access to credit.

RESULTS AND DISCUSSION

Table 1 shows the socio-economic characteristics of the farmers. The mean value of respondents' age is 42.6 years. The number of male persons is 4.45 in the selected household while female persons are 1.53. These statistics are used to show labor supply for performing various crop-related activities. Similarly, family size is 8.11. Mean years of schooling (6.33 schooling years) shows that the respondents have considerably higher years of schooling along with a rich farming experience of 23.31 years. Livestock namely buffalo, cow, goat/sheep, etc. are taken to see the financial liquidity available to the respondents. A wealth of farmers is indicated by the availability of refrigerators, electric coolers, televisions, washing machines, motorcycles, tractors, and cars.

Table 1. Socio-economic characteristics of the respondents.

Variables	Mean	SD.
Age(years)	42.6	7.92
Male (no.)	4.45	1.53
Female(no.)	3.67	1.25
Family size (no.)	8.11	2.07
Year of schooling	6.33	2.66
Farming experience(years)	23.31	7.77
Livestock		
Buffalo	1.14	1.03
Cow	1.87	1.31
Goats/sheep	1.65	1.73
Hen/duck	2.03	3.15
Household assets		
Refrigerator	0.60	0.49
Electric cooler	0.65	0.47
Television	0.68	0.46
Washing machine	0.45	0.49
Motorcycle	0.64	0.48
Cycle	0.28	0.45
Tractor	0.07	0.25
Car	0.02	0.13

Estimates of the Logit Model

The results of logit model are given in Table 2. The variables namely year of schooling, land size, farming experience and distance from the foundation are significant factors affecting demand-supply gap. Distance from Akhuwat Foundation is significant but has a negative relation with the micro credit demand and supply gap. It indicates that as the distance from the office of the foundation increases, the probability of

the gap decreases. Variables of age, marital status, tractors, and no. of buffalos, home accessories and family size are insignificant.

Table 2. Estimates of logit model.

Variables	Coefficient	S.E	Wald	Sig	Exp(B)
Age	-.04	.03	1.45	.23	.96
Marital status	.75	.76	.99	.32	2.12
Year of schooling	.11	.06	2.62	.01	1.11
Land size	3.86	.48	63.82	.00	47.38
Tractor	.62	.73	.73	.39	1.86
No of buffalo	.06	.16	.16	.68	1.07
Farming experience	.07	.03	4.1	.04	1.07
Distance	-.15	.05	7.93	.00	.86
How access credit	.29	.38	.61	.43	1.35
Family size	.12	.08	1.82	.18	1.13
Constant	-10.82	2.18	24.52	.00	.00
-2 Log likelihood	238.68				
Cox & Snell R Square	.43				
Nagelkerke R Square	.57				

Year of schooling, land size, and farming experience positively affect the amount applied and received. The results of land size are according to the results of Akerele et al. (2018), Okurut (2006) and Oluwasola and Alimi (2008). The distance from the Akhuwat Foundation is contrary to the results of Bakhshoodeh and Karami (2008) and Okurut (2006). The results regarding farming experience is in line with those of Ijioma and Osondu (2015), Bakhshoodeh and Karami (2008) and Magbul and Hassan (2017), and Bashir et al. (2007). The schooling year effect in the present study coincides with Asghar (2018). We found that 70% of the respondents reported that the micro-credit did not meet their needs and just 22.7% of farmers are satisfied with the loan amount offered per acre by the AF. Microfinance provided by the Akhuwat Foundation not only affects crop productivity, it also plays a crucial role in reducing poverty (Khan et al., 2018). Widening the net of the micro-finance program can have a significant effect on enhancing the welfare of rural households.

CONCLUSIONS AND RECOMMENDATIONS

The study concludes that interest-free micro-credit provided by the Akhuwat Foundation is crucial for improving the crop productivity of small landholders. However, there exists a demand-supply gap of the micro-credit. Important factors affecting this gap are education, farm size, and distance from the office of Akhuwat Foundation. It is, therefore, necessary to widen the network of branch facilities in the study area so the farmers can have more easy access to interest-free micro-credit facilities. This can be achieved by encouraging other micro-financial institutions to initiate such programs to uplift the living standards of small landholders. The results of the study could not be generalized because the study area is limited to only one district. Future studies should be planned on a larger scale with a large sample size.

REFERENCES

Akerele, D., Adetoyi, O. V., Ogunmola, O. O. & Aminu, F. O. (2018). Factors influencing meat consumption among households in Odeda local government area, Ogun State, Nigeria: Does "cholesterol risk perception" really matter? Ife Journal of Agriculture, 30(1), 8-19

Asghar, N. (2012). Microfinancing for poverty reduction: An empirical study of rural areas of Tehsil Gujrat-Pakistan. International Journal of Advances in Management and Economics, 1(4), 14-19.

Bakhsh, K., Akhtar, M. H. & Adhikari, R. (2024). Forecasting prices and production of pulses in Faisalabad market, Pakistan. Bulletin of Business and Economics, 13(1), 105-109.

Bakhshoodeh. M., & Karami, A. (2008). Determinants of poor accessibility to microcredits in rural Iran. International Conference on Applied Economics – ICOAE. https://drive.google.com/file/d/1cAgsUkvTlAEcnZggv5xu708pYHdUdaRG/view.

Bashir, M. K., Gill, Z. A., Hassan, S., Adil, S. A. & Bakhsh, K. (2007). Impact of micro-credit disbursed by commercial banks on the productivity of sugarcane in Faisalabad district. Pakistan Journal of Agricultural Sciences, 44 (2), 356-360

Ibrahim, H. A. & Bauer, S. (2013). Access to micro credit and its impact on farm profit among rural farmers in dryland of Sudan. Global Advanced Research Journal of Agricultural Science, 2(3), 88-102.

Ijioma, J. C., & Osondu, C. K. (2015).Agricultural credit sources and determinants of credit acquisition by farmers in Idemili Local Government Area of Anambra State. Journal of Agricultural Science and Technology B, 5(1), 34-43.

Iqbal, Z., Mushtaq, M. A, & Iqbal, S. (2015). Impact of microfinance on poverty alleviation: The study of District Bahawalnagar, Punjab, Pakistan. Management and Administrative Sciences Review, 4(3): 487-503.

Khan, A., Naveed, K., Yousafzai, I. A. & Khan, K. (2018). Role of Islamic micro credit activities of Akhuwat in poverty alleviation in District Nowshera. Journal of Business School, 1(2), 47-59.

Khapayi, M. & Celliers, P. R. (2016). Factors limiting and preventing emerging farmers to progress to commercial agricultural farming in the King William's town area of the Eastern Cape Province, South Africa. African Journal of Agricultural Extension, 44(1), 25-41.

Magbul, A., & Hassan, R. (2017).Microcredit supply under Islamic Banking in Khartoum State, Sudan.Southern African Business Review, 21(1), 407-428.

Nawaz, R., Bakhsh, K. Ullah, S. Rehman, S., Azeem, M., & Hayat, A. (2021). Drivers of ICT Adoption in Small and Very Small Businesses in Technologically Least Developed District of Southern Punjab. International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies, 12(1), 12A1K, 1-10.

Noreen, U., Imran, R., Zaheer, A., & Saif, M.I. (2011). Impact of Microfinance on Poverty: A case study of Pakistan. World Applied Sciences Journal, 12(6), 877-883.

Okurut, F. N. (2006). Access to credit by the poor in South Africa: Evidence from Household Survey Data 1995 and 2000. Department of Economics, University of Botswana Stellenbosch Economic Working Papers, 13(06). https://www.ekon.sun.ac.za/wpapers/2006/wp132006/wp-13-2006.pdf.

Oluwasola, O., & Alimi, T. (2008).Determinants of agricultural credit demand and supply among small-scale farmers in Nigeria. Outlook on Agriculture, 37(3), 185-193.

Rahji M. & Adeoti, A. (2010). Determinants of Agricultural Credit Rationing by Commercial Banks in South-Western, Nigeria. International Research Journal of Finance and Economics, 37, 1450-2887.

Ullah, S., Iqbal, T., Yaseen, N., Mohsin, Z. & Bakhsh, K. (2024). Impact of family involvement and longevity goals on small family firm performance in Southern Punjab, Pakistan. Pakistan Journal of Humanities and Social Sciences, 12(3), 2801-2811.