CREDIT ACCESS AND WOMEN ENTREPRENEURSHIP IN ZIMBABWE'S INFORMAL SECTOR

Julius Mukarati, University of Limpopo
Itumeleng P.Mongale, University of Limpopo
Makombe Godswill, University of Pretoria's Gordon Institute of Business Science

ABSTRACT

Despite government's huge investments in the informal sector activities, women are constrained in the credit market mainly due to culture; norms and lack of collateral securities as majority of women do not have control over productive capital. As a way of improving access to credit by women, the Government recently launched a number of women empowerment policies among them is the improved access to credit from financial institutions. Using individual firm level data and a methodological approach consisting of endogenous switching regression approach, this study intends to empirically investigate whether the improved credit access by women is justified in Zimbabwe. An endogenous switching regression is appropriate to deal with individual heterogeneity and examine whether access to credit is gender-based. The results showed that there is no discrimination in the credit market as there is no significant difference in access to credit between male and female entrepreneurs. However, there is a slight significant improvement in firm performance due to access to credit. The study recommends that Micro-credit be made more flexible and to incorporate special relief non-financial intermediations to meet so as cater for the gender needs of household and community.

Keywords: Credit Access, Women Entrepreneurship, Endogenous Switching Regression.

INTRODUCTION

Informal sector plays a key role in economic development especially in developing countries where formal sectors are poorly performing due to economic constraints. The informal sector provides employment opportunities and is an avenue for income mainly for unemployed females. A large population now depends on the informal sector for its livelihoods with their income coming from the operation of small enterprises. These enterprises include trade in markets, selling of cooked foods, hairdressing, steel works and carpentry and these small enterprises according to some studies are most likely to be informal. Despite the importance of the informal sector to economic growth, the sector is largely underdeveloped and faces a number of constraints chief among them is credit constraint. Though the size of the informal sector varies across nations, the growth of and productivity of the informal sector have be largely hindered by limited productive capital especially for women. The informal businesses require capital in form of credit for improved productivity (Amemiya, 1985).

Between 2005 to 2008, Zimbabwean economy has experienced its highest decline in economic activity resulting in the shrinking of the formal sector, company closures and job losses through retrenchment. This decline in economic activity gave rise to the growth and dominance of the informal sector which became the safety net for survival. The informal sector can be defined as a way of doing business characterized by family ownership, small scale activities operations and unregulated and competitive markets (ILO, 2013). Like in many developing countries, it is widely agreed that the informal sector represents a growing proportion of economic activity Asiedu et al. (2013). The Zimbabwean informal sector could be the sixth largest in sub-Saharan African contributing between 40-50% to gross domestic product between 2010-2014. The micro, small and medium enterprises survey (2014), estimated that there are 3.5 million businesses in the informal sector being operated by 57000 households. However, there survey mainly focused on informal business in Harare, with limited focus on other cities.

In Zimbabwe women make up about 61% of the population, hence empowering women by promoting female entrepreneurship tends to be associated with both economic and social gains. Thus government policies aimed at encouraging women in the business sector has a potential to enlarge the productive capacity of a nation by just adding into both the active population and the number of business firms (Becker, 1971).

The main objective of the National Transitional Stabilization Programme (2018-2020) instituted by the ministry of finance is to stimulate growth and productivity through creation a conducive environment for investment through fiscal consolidation, economic stabilization and employment creation. The government has since prioritized the informal sector growth as a means for addressing women unemployment and entrepreneurship. However, the informal sector has not experienced the anticipated growth due to a number of constraints chief among them is the limited access to credit. In light of mixed empirical results as far gender discrimination in the credit market is concerned and its implications for firms' performance, only country-specific studies could help analyses the extent to which female entrepreneurs are discriminated against credit market in the country.

Despite government effort on women empowerment, female entrepreneurs especially in the informal sector are constrained financially. The results of this study will determine whether or not improved access to credit to women is justified. The study will also evaluate the impact on employment, income distribution and poverty in the informal sector. This will help inform policy makers whether or not the desired outcomes on women credit accessibility in the informal sector are realized and if complementary policies are required to achieve women empowerment and entrepreneurship (Charnes et al., 1978).

Research Objectives and Scope

The study was carried out to assess the effect of access to credit on women empowerment in Zimbabwe focusing on three main cities in the country, Harare, Bulawayo and Gweru which have the greatest number of informal activities in the country. The research focused on the following areas among others, financial constraints, gender disparities, informal sector performance and income distribution. Only activities that involved informal sector performance and access to credit were investigated and analysis of firm efficiency was based on the current firm profitability system (Coelli & Perelman, 1999).

METHODOLOGY AND DATA

Research Design and Setting

A descriptive cross sectional study was used and according to Aamir Omair (2015), descriptive studies are designed to gain more information about characteristics within a particular field of study and in this case, the informal sector. Descriptive study provides a picture of situations as they naturally happen. It also provides an adequate tool to assess respondents' opinion on the research problem (Garba, 2011).

Sampling Technique

Entrepreneurs in the informal sector were considered and qualified for sampling. The three cities were classified in three strata and in each stratum; an alphabetical list of all firm owners was generated. Within each stratum simple random sampling using the computer generated random number tables was used. Simple random sampling was chosen as it minimises selection bias allowing each participant to have an equal chance of participating in the study Hansen and Rand (2011).

Data

A well- structure questionnaire was designed to obtain relevant information. The survey was conducted in the three major cities which are considered to be dominated by informal sector activities in Zimbabwe with a total sample size of 425 households. The survey collected detailed information on various aspects of the informal sector activities including firm characteristics, size and activities, sectorial distribution, gender of owner, whether the firm have applied for credit, type of lenders, duration of credit. The research intended to use firm-level data to analyses and investigate the impact of access to credit on women entrepreneurship and firm productivity in Zimbabwe's informal sector. The survey data to be collected contained extensive and detailed information on ownership, firm activities, and detailed information of income, credit from different sources and also socio-economic and demographic aspects of households (Heckman, 2011).

Estimation Technique

To assess the effect of credit access on women entrepreneurship in the informal sector, a parametric model was applied assuming that the choice of informal activities is orthogonal to the owner's general characteristics. Gender and credit access will be introduced in the model to analyse whether there is gender bias in accessing credit. An endogenous switching regression model was applied. Women empowerment is treated as an endogenous variable which will be specified in a system of equation and the reduced form equation for women access to credit CA_{ij} by an individual woman i at farm level j is given by:

$$CA_{ij} = \alpha^{a} X_{ij} + \beta^{a} D_{j} + \delta Z_{ij} + \gamma_{ij}^{a}$$

Where CA_{ij} represents access to credit by an individual women, X_{ij} is a vector of individual characteristics, D_{ij} represents factors influence access to credit, Z_{ij} represents farm characteristics and γ_{ij} unobserved characteristics, $\alpha^{a}, \beta^{a}, \delta$ are parameters to be estimated. This equation represents the predicted value of the probability of a women accessing credit form a financial institution (Khan et al., 2013).

The endogenous switching regression model was adopted to test firm productivity and efficiency where gender and access to credit will be introduced in the model. This was done to determine if female are less likely to obtain credit and examine whether there are differentials in terms of productivity when it comes to credit. We examined the probability of a woman being an entrepreneur conditional on access to access and other characteristics Maddala (1983). In this study, a woman is an entrepreneur if she owns and control firm operations. The reduced form equation for the entrepreneurial status WE_{ij} of individual woman i in enterprise j, conditional on access to credit and other characteristics is defined as:

$$WEij = \alpha^{a} X_{ij} + \beta^{a} D_{j} + \varphi CA_{ij} + \nu^{a}{}_{ij}$$

Women empowerment will also be treated as an endogenous variable in the standard aggregate yield function and thus the yield equation will be specified as:

$$Y_{ip} = \alpha + \psi WE_{i} + \gamma X_{ip} + \lambda P_{ip} + \kappa Z_{ip} + \varepsilon_{ip}$$

Access to credit is endogenous as the decision to access credit is influenced by some unobservable factors and due to the non-random selection criterion for eligibility of the members to qualify for credit.

Data Analysis

Data in this study was analysed using Stata statistical software. Recognising the main objective of this study- to assess the effects of credit access on women empowerment in Zimbabwe informal sector and an endogenous switching regression model was used to present the results while descriptive statistics was used to summarize all categorical data Omboi and Wangai (2011).

RESULTS

Table 1
SUMMARY STATISTICS OF THE DATA

Credit Application	Female-owned		Male-owned	
	Mean	S.D.	Mean	S.D.
	10.0	**0.2**	**9.1**	**0.29**
Reason for Non Application				
High interest rate	38.8	0.36	26.6	0.27
Collaterals	12.4	0.42	18.0	0.29
Access to credit	34.5	0.28	30.0	0.36
Interest rates	22.1	4.87	6.9	2.10
Duration	19.2	24.22	21.8	26.88

Source: Author's computations from survey data

The descriptive results showed that more women applied for credit compared to males, however the difference between the male and female owned companies is access to capital. Accessibility to loans from Micro-credit helped women to start up income generating enterprises hence the noticeable increase in female owned enterprises and increased household incomes

(Popov, 2013). It was further revealed that access to Microcredit as a result of income generating projects empowers women. Table 1 provided summary statistics related to gender and access to credit and the distribution of firms across gender shows that when it comes to credit, female entrepreneurs appear to be more likely to apply than their male counterparts. However, the main challenge to female entrepreneurs is the high cost of borrowing (high interest rates) and inadequate collaterals and incomplete application. The study results indicated that Firms' credit profile varies across gender (Stiglitz & Weiss, 1981).

Table 2
ENDOGENEOUS SWITCHING REGRESSION MODEL RESULTS

	Log efficiency (credit)	**Log efficiency (No credit)**	**Access to credit**
Characteristics Female owned	0.0105 (0.014)**	-0.082 (0.2000)	0.09 (0.188)
Education	0.0824* (0.079)	-0.067 (0.149)	-1.311*** (0.000)
Company Profile Firm age	0.00637 (0.188)	-0.00325 (0.423)	0.0009 (0.329)
Performance	-0.003 (0.134)	0.000345 (1.98)	-0.004 (0.94)
Instruments Interest rate			0.325
Credit access rate			0.015**
Constant	-2.227	-1.756***	-7.1
Sigma 1	0.623		
Sigma 0	0.725***		
Rho 1	-0.334**	Rho 0	-0.218

*Source: Author computation from survey data, note *, **, *** denotes* $\rho \prec 0.1, \rho \prec 0.05, \rho \prec 0.01$

The results of the model showed that majority of the firms are not constrained in the credit market. The correlation coefficient ρ_1 in the efficient model is statically significant and negative in the equation for firms with access to credit indicating that those firms who are credit constrained have a higher efficiency that the other firms from the sample. The model however, is validated as the correlation coefficient ρ_0 is statically significant and different from zero shows in Table 2.

The regression results indicated that there is no discrimination in accessing credit between male and female entrepreneurs as the coefficient of female ownership on credit access is not significant. From the model results, factors such as firm's size, workforce and performance do not matter much in determining the likelihood to access to credit by firms. However, education does significantly increase the likelihood to access credit as education can help in familiarization with the application process.

The results also point out a significant positive impact on the efficiency of female owned firms compared to their counterparts without credit. Hence these results showed that access to credit is a significant determinant of efficiency among female owned firms. The model results indicated that efficiency among firms is found to be sectorial as clothing enterprises were found to be significant and more efficient compared to groceries.

CONCLUSION

The paper intended to empirically assess the contribution of credit access to women empowerment in the informal sector and identify the major determinants of accessing credit by female entrepreneurs in the informal sectors in Zimbabwe. Using firm-level data, the paper adopted an endogenous regression technique and the findings indicated that accessing credit is not based on gender and firm performance but mainly by meeting the credit application requirements. This notion was supported by education being a significant determinant of credit access. The positive effect of access to credit on efficiency clearly showed that firms which accessed credit have a higher efficiency than other randomly selected firms from the sample.

The above findings, the study recommended that the service provider incorporate special relief non-financial intermediations and schemes in order to meet the deliberate gender needs within the household and the community and to incorporate gender impartial strategies into male facilities. There is need to improve access to information and gender mainstreaming by introducing gender and empowerment issues to microfinance credit borrowers.

REFERENCE

Asiedu, E., Kalonda-Kanyama, I., Ndikumana, L., & Nti-Addae, A. (2013). Access to credit by firms in Sub-Saharan Africa: How relevant is gender? *American Economic Review*, *103*(3), 293-97.

Becker, G.S. (2010). *The economics of discrimination*. University of Chicago press.

Black, S.E., & Strahan, P.E. (2002). Entrepreneurship and bank credit availability. *The Journal of Finance*, *57*(6), 2807-2833.

Charnes, A., Cooper, W.W., & Rhodes, E. (1978). Measuring the efficiency of decision making units. *European Journal of Operational Research*, *2*(6), 429-444.

Coelli, T., & Perelman, S. (1999). A comparison of parametric and non-parametric distance functions: With application to European railways. *European Journal Of Operational Research*, *117*(2), 326-339.

Garba, A.S. (2011). Stumbling block for women entrepreneurship in Nigeria: How risk attitude and lack of capital mitigates their need for business expansion. *European Journal of Economics, Finance and Administrative Sciences*, *36*, 38-49.

Hansen, H., & Rand, J. (2011). *Another perspective on gender specific access to credit in Africa* (No. 2011/14). FOI Working Paper.

Heckman, J., Tobias, J. L., & Vytlacil, E. (2001). Four parameters of interest in the evaluation of social programs. *Southern Economic Journal*, 211-223.

Khan, M.N., Khan, M., Abassi, S.S., Anwar, S., Ali, M., & Naheed, S. The Effect of Zarai Taraqiati Bank in Enhacing Farm Productivity through Agricultural Credit-A Case Study of District Lakki Marwat, KPK-Pakistan. *Research Journal of Agriculture and Forestry Sciences*, *1*(8), 1-4.

Maddala, G.S. (1986). *Limited-dependent and qualitative variables in econometrics* (No. 3). Cambridge university press.

Omboi, B.M., & Wangai, P.N. (2011). Factors that influence the demand for credit for credit among small-scale investors: a case study of Meru Central District, Kenya.

Popov, A. (2014). Credit constraints and investment in human capital: Training evidence from transition economies. *Journal of Financial Intermediation*, *23*(1), 76-100.

Stiglitz, J.E., & Weiss, A. (1981). Credit rationing in markets with imperfect information. *The American Economic Review*, *71*(3), 393-410.

Takeshi, A., & AMEMIYA, T.A. (1985). *Advanced econometrics*. Harvard university press.