Full length research paper

Factors influencing micro and small enterprises' access to finance since the adoption of multi-currency system in Zimbabwe

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Access to financial services is key to Micro and Small Enterprises' (MSEs) operation and growth in Zimbabwe. A survey was done in a small town (Bindura), medium size city (Kadoma) and the city of Harare (large city) to determine major factors influencing MSEs' access to finance since the adoption of the multi-currency system in Zimbabwe. A pilot study was done in the city of Gweru to 10 MSEs'. Structured questionnaires were administered to MSEs that have been operating for at least one year as well as registered with the respective town councils and a total of 115 responses were obtained in all the 3 urban areas. The model used was the Binary Logistic model. The best model selected was based on the Omnibus Tests of model coefficients, the Chi-Square tests, the Cox and Snell R-Sqaure and the Nagelkerke R-Squared values. The importance of each factor was determined using the Wald statistic value. The results showed that formality, value of assets, business sector, operating period, financial performance and size are all important factors in determining access to finance.

Keywords: MSEs; Finance; Multi-Currency; Logistic Regression

INTRODUCTION

The dollarization of the Zimbabwean economy at the end of year 2008 brought with it an increase in the number of micro and small enterprises with financing challenges with some having to cease operating due to shortage of working capital and viability problems. The death of the Zimbabwean dollar (ZW$) meant that most MSEs lost all the savings which they had in the domestic currency. As a result there was much need and pressure than any other time for the enterprises to look for external sources of finance to reconstruct their statements of financial position. The latest records maintained by Small Enterprise Development Corporation (SEDCO) indicate that there is an estimated 500 000 small and medium enterprises operating in Zimbabwe as of 2008(G. Gono, Reserve Bank of Zimbabwe, personal communication).For an enterprise to acquire a loan it has to pledge over business and household assets plus a guarantor. Almost all micro institutions require collateral ranging from title deeds, vehicles, electronic gadgets, jewellery and movable and immovable property. However, these institutions give loans at very prohibitive terms, exorbitant and uneconomic rates which make business viability to be difficult for the small firms. The qualifying business should be at least one year old and should have proven business records. The purpose of

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this research is to determine the factors influencing access to finance by MSEs since 2009, the period when the country ceased using the Zimbabwe dollar as a legal tender. The objective of this explanatory study is to establish if the micro and small enterprises' access to finance after the dollarization of the economy depends on the business sector in which the MSE operates, its level of formality, its asset base, its performance as well as its ownership structure. According to Saunders *et al.,* (2003) the emphasis of explanatory research is to study a situation or problem in order to explain the relationships between variables. Although there is a lot of literature which address some of these issues, none of it specifically focus on a country that has gone through economic meltdown such as Zimbabwe and which had to give up its currency for other nations currencies mainly the United States dollar and to some extent the South African rand.

Literature Review

There is no commonly accepted definition of micro and small enterprises. According to Borgarello *et al.,* (2004) and Malhotra *et al.,* (2006) definition of a micro and a small enterprise vary from country to country and from sector to sector. They also agree on the criteria to define small enterprises and say it may include turnover, assets, employment numbers, and management characteristics. The European Commission (2005) defines a small enterprise as a firm with 10-50 employees and a micro enterprise is defined as one with less than 10 employees. Chigumira and Masiyandima (2003) say, "In Zimbabwe a micro enterprise refers to an enterprise with less than 10 employees and a small enterprise refers to an enterprise with between 10 and 50 employees."

The capital structure of a firm depend on the age of the firm, size of the firm, asset structure, profitability, growth and risk (*Hall et al.*, 2004). A World Bank survey confirms that large firms everywhere generally have more access to bank credit than small firms (Cull *et al.*, 2005).This is also confirmed by Dawson (1993) who found that formal sector credit was out of reach for smaller enterprises in Ghana and Tanzania. Gebru (2009) also found that compared to large firms, MSEs face a relative disadvantage to raise finance from formal institutions such as banks because they are considered to have higher financial risk.

Smaller firms also find it relatively more costly to resolve information asymmetries with lenders, thus, may present lower debt ratios (Castanias, 1983). Empirical evidence from other studies shows that there is a positive

relationship between firm size and bank financing (Cassar and Holmes, 2003). According to Abor and Biekpe (2009) there is empirical evidence of a positive relationship between size and capital structure of SMEs and smaller firms are more likely to depend on equity while larger firms are more likely to use debt. In the case of small firms with more concentrated ownership, it is expected that high growth firms will require more external financing and therefore would display higher leverage (Heshmati, 2001).   Banks tend to respond to MSEs' financial risk by adopting a capital-gearing rather than an income-gearing approach to lending (Tucker and Lean; 2003). This view is also supported by Gebru (2009) who highlights that rather than focusing attention on evaluating income streams flowing from an investment project, banks may focus more on the value of collateral available. Collateral poses an obstacle for the MSEs because many banks only accept very limited types of tangible fixed assets such as buildings or lease of land as collateral and these factors influence the access of MSEs to bank loans. (Wu *et al.*, 2008).In terms of the trade-off hypothesis, businesses with mostly tangible assets (like construction and manufacturing) should borrow more because of the collateral provided by their assets (Jordan *et al.*, 1998).

Startup firms are likely to face financing problems if the Life cycle approach highlighted by Gebru (2009) is considered since it suggests that a firm's access to finance depends on its stage of development. New firms tend to rely on owners' initial equity because they may not initially be in the position to present an attractive investment avenue for finance providers (Berger and Udell, 1998). Abor and Biekpe (2009) suggest that a firm which has operated for long has reputation that it has built up over the years, which is understood by financial markets. Hall *et al.,* (2004) confirmed that age is positively related to long term-debt but negatively related to short-term debt. Profitability is assumed to have a positive relationship with debt. According to Atieno (2001), MSEs also must be profitable in order to grow and be able to attract more external finance. Cull and Xu (2005) suggest that Chinese banks tend to allocate funds to firms that have better performance outcomes as identified in a review of a firm's accounting statements. Gregory *et al* (2005) found reasons for failure to get loans by MSEs as their not being publicly held and thus not subject to securities and disclosure requirements, non-availability of audited financial statements and ownership structure. USAID (2010) found that being formally registered greatly enhanced the MSEs' access to bank finance in Iraq. Studies by Van Auken and Neely (1996) and Coleman (2000) revealed that businesses organized

as sole proprietorship expose the providers of capital to potential higher levels of risk as the repayment risk depends on a single owner.

RESEARCH METHODOLOGY

A descriptive survey method using structured questionnaires was used in this study carried out in Bindura town, city of Kadoma and the capital city of Zimbabwe, Harare. The city of Harare was chosen as a representative of the MSEs operating in big cities, while the city of Kadoma was chosen as a representative of MSEs in medium cities and Bindura was chosen to represent MSEs that operate in small towns in Zimbabwe. Micro and Small enterprises registered with the respective council authorities in each town were purposively sampled as respondents. A pilot study was done in Gweru to 10 MSEs and the information was used to correct the questionnaire that was to be used during data collection. Micro and small enterprises (MSEs) that were considered were those operating in manufacturing, construction, hotel and catering, transport, storage, communication, wholesale and retail, motor vehicle repair, education, health, social work and community services sector. The research considered those firms which have been operating for at least one year and are registered by the municipalities of the towns under study.

The questionnaires were hand delivered to the respondents and respondents were given about two weeks to complete the questionnaires after which the questionnaires were collected in person by the researcher. Sixty-four (64) responses were received out of the 120 questionnaires administered in Harare and 32 responses out of the 70 questionnaires administered in Kadoma. In the smaller town of Bindura, a total of 17 responses were obtained from 40 questionnaires administered.

Data on the MSEs' business sector, period of operation, value of assets held, size of MSE as measured by number of employees, financial performance as measured by number of losses in the last five years and the enterprise's level of formality was collected, entered and analysed in SPSS software Version 16.0. Level of formality of each enterprise was calculated using formality test adopted from Research ICT Africa (2006) which considers form of business ownership, registration with tax authorities, registration for VAT, number of employees with written employment contract, separation of business from personal finance and form of financial records kept. Generalised Linear Modelling using a Binary Logistic Model was used to assess if these factors

influence MSEs' access to finance. A backward stepwise (Wald) model procedure was used to select the best model on the basis of Cox and Snell R-Square and the Nagelkerke R-Square values. The above factors were incorporated into the model on the basis of the Wald statistic values.

RESULTS

Data was analyzed with the loan application outcome by MSEs as a response variable and the predictor variables were formality of business, type of business sector, length of period of business operation, assets owned, size of the enterprise as measured by number of employees, and the business financial performance measured in terms of number of losses made in the last five years. The results indicated that all the factors were important in influencing MSEs access to finance under the multi-currency system in Zimbabwe. From the Backward Stepwise logistic regression, five steps were generated with different predictor variables and the appropriate model was chosen on the basis of Omnibus tests of model coefficients (Table 2), the Cox and Snell R-Square and the Nagelkerke R-Square values (Table 1). On the basis of these statistics, the best model selected was the one with all the predictor variables (factors) which was on step 1. The model had a Chi-Square statistic of 32.007 and a p-value of 0.031 which was significant at 5% significance level. All the other four steps had Chi-Square values that were not significant at 5% level.

A negative Chi-squares value indicates that the Chi-square's value has decreased from the previous step. Step 1 had a Chi-Square statistic of 32.007 and it was significant ($p=0.013$). This is the only step which was significant compared to the other 4 steps. These results showed that this step which included all the factors was the most important in explaining access to finance by MSEs.

The estimate of the constant was -0.623 with a standard error of 0.264 (Table 3). If all predictor variables are equal to zero, the predicted log odds in favour of access to loan would be -0.623 implying that the chances of accessing loan are reduced by a multiplicative factor of -0.623.7. The constant was significant $(p=0.018)$ at 5 % level.

Formality of business had the highest Wald Statistic (7.549) and it was significant ($p=0.0124$) implying that it was the most important factor in determining loan outcome in MSEs. Assets factor was the second in terms of importance of explaining loan outcome in MSEs with a

Table 1: **Binary Logistic Model Summary**

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	49.509	0.398	0.549
2	57.5577	0.316	0.436
3	57.580	0.316	0.436
4	61.959	0.267	0.368
5	65.580	0.224	0.308

Table 2: **Omnibus Tests of Model Coefficients for the Logistic Regression**

Step		Chi-Square	df	Sig
1	Step	32.007	19	0.031
	Block	32.007	19	
	Model	32.007		
2	Step	-8.068	7	0.327
	Block	23.939		
	Model	23.939		
3	Step	-0.003	1	0.957
	Block	23.936		
	Model	23.936		
4	Step	-4.379	3	0.223
	Block	19.557		
	Model	19.55		
5	Step	-3.621	3	0.305
	Block	15.936		
	Model	15.936		

Table 3: Constant estimate of the logistic regression

Step	B	SE	Wald	d.f	Sig	Exp(B)
0	-0.623	0.264	5.549	1	0.018	0.537

Wald statistic of 6.798. Business sector was ranked third in determining loan outcome in MSEs with a Wald statistic of 5.328 and the least ranked factor was the size of firms as measured by the number of employees which had a Wald statistic of 0.576 (Table 4). The general binary logistic model is given below:

$$\text{Log}_e\,(\pi/1\text{-}\pi) = a\,\beta_1 X_1 + \beta_2 X_2 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\beta_n X_n$$

Where: π is chances of accessing loans; $1\text{-}\pi$ is chances of not accessing loans; 'a' is a constant; β is an estimate from the regression and X is the predictor variable.

Conclusion

The results show that all the factors investigated had to some extent an influence on the ability of MSEs to get loans. These results are consistent with the findings of Atieno (2001). However, even though all factors were important in influencing MSEs' access to loans some factors seemed to have more influence than others based on the Wald statistic. Firms' level of formality had greatest influence in enabling firms to get loans. This implies that formal enterprises were more likely to get access to loans than informal enterprises. The same

Table 4: Estimates of Parameters of Variables in the Equation

	B	S E	Wald	df	Si	Exp(B)
Step 1						
Assets			6.798	3	0.079	
Assets(1)	-2.373	1.687	5.702	1	0.0	56.104
Assets(2)	-1.934	1.544	0.035	1	0.85	0.750
Assets(3)	0.246	1.234	0.216	1	0.64	0.563
Sector			5.328	7	0.620	
Sector(1)	-3.748	2.368	2.504	1	0.114	0.024
Sector(2)	-3.484	1.996	3.046	1	0.081	0.031
Sector (3)	-3.897	2.285	3.045	1	0.081	0.019
Sector(4)	-2.633	1.942	1.839	1	0.175	0.072
Sector (5)	-3.576	2.123	2.837	1	0.09	0.028
Sector (6)	-5.856	2.831	4.279	1	0.039	0.003
Sector (7)	-22.52	2.4	0.000	1	0.99	0.000
Period			3.115	3	0.374	
Period(1)	-2.373	1.532	2.399	1	0.121	0.093
Period (2)	-1.934	1.542	1.574	1	0.210	0.145
Period (3)	0.246	1.056	0.054	1	0.816	1.279
Employee(1)	1.083	1.426	0.576	1	0.448	2.952
Formality			7.549	2	0.024	
Formality (1)	-2.534	1.777	2.035	1	0.154	0.079
Formality (2)	-5.134	-5.134	6.666	1	0.010	0.006
Losses			2.636	3	0.451	
Losses (1)	1.392	1.382	1.014	1	0.314	4.023
Losses (2)	-0.335	1.333	0.063	1	0.802	0.715
Losses (3)	0.709	1.766	0.161	1	0.688	2.032
Constant	0.709	2.280	1.697	1	0.193	19.503

results were obtained by USAID (2010). The second most important factor was value of assets held. Those enterprises with high value of assets must have been in a position to pledge the assets as security and hence obtain the loan. According to Gebru (2009) banks focus more on the value of collateral available than income streams flowing from a project. The business sector in which the enterprise is operating was also a very important factor in accessing loans. Providers of finance often assess the capacity of a firm to repay the loan on the basis of its future cash inflows and levels of these cash flows vary across industries. After business sector, the period of operation was the next important factor. This is supported by Abor and Biekpe (2009) who suggest that a firm that has operated for long is likely to get finance as a result of its reputation. Performance as measured by number of losses in the last five years was the second least important factor. These results are in contrast to Atieno's assertion (2001) that MSE's profitability was the most important factor. It seems most providers of finance were not considering the enterprise's financial performance during the hyper inflationary Zimbabwe dollar era and most of the firms' reported losses are likely to have been made during that period. The size of the MSE as measured by number of employees was the least important factor in terms of the Wald statistic but there results are statistically insignificant.

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