



Journal of Economic Studies

Microenterprise financing preference: Testing POH within the context of Ghana's rural financial market

Eric Osei-Assibey, Godfred A. Bokpin, Daniel K. Twerefou,

Article information:

To cite this document:

Eric Osei-Assibey, Godfred A. Bokpin, Daniel K. Twerefou, (2012) "Microenterprise financing preference: Testing POH within the context of Ghana's rural financial market", Journal of Economic Studies, Vol. 39 Issue: 1, pp.84-105, <https://doi.org/10.1108/01443581211192125>

Permanent link to this document:

<https://doi.org/10.1108/01443581211192125>

Downloaded on: 19 September 2018, At: 03:45 (PT)

References: this document contains references to 36 other documents.

To copy this document: permissions@emeraldinsight.com

The fulltext of this document has been downloaded 10359 times since 2012*

Users who downloaded this article also downloaded:

(2016), "Does finance solve the supply chain financing problem?", Supply Chain Management: An International Journal, Vol. 21 Iss 5 pp. 534-549 https://doi.org/10.1108/SCM-11-2015-0436

(2011), "The potentials of mushārahah mutanāqisah for Islamic housing finance", International Journal of Islamic and Middle Eastern Finance and Management, Vol. 4 Iss 3 pp. 237-258 https://doi.org/10.1108/17538391111166476

Access to this document was granted through an Emerald subscription provided by emerald-srm:534301 []

For Authors

If you would like to write for this, or any other Emerald publication, then please use our Emerald for Authors service information about how to choose which publication to write for and submission guidelines are available for all. Please visit www.emeraldinsight.com/authors for more information.

About Emerald www.emeraldinsight.com

Emerald is a global publisher linking research and practice to the benefit of society. The company manages a portfolio of more than 290 journals and over 2,350 books and book series volumes, as well as providing an extensive range of online products and additional customer resources and services.

Emerald is both COUNTER 4 and TRANSFER compliant. The organization is a partner of the Committee on Publication Ethics (COPE) and also works with Portico and the LOCKSS initiative for digital archive preservation.

*Related content and download information correct at time of download.



Microenterprise financing preference

Testing POH within the context of Ghana's rural financial market

Eric Osei-Assibey

*Graduate School of International Development,
Nagoya University, Nagoya, Japan and Department of Economics,
University of Ghana, Legon, Ghana*

Godfred A. Bokpin

*Graduate School of Economics, Osaka University, Osaka, Japan and
Department of Finance, University of Ghana Business School,
Legon, Ghana, and*

Daniel K. Twerefou

Department of Economics, University of Ghana, Legon, Ghana

Abstract

Purpose – The purpose of this paper is to investigate the determinants of financing preference of micro and small enterprises (MSEs) whilst distinguishing a broader range of financing sources beyond what is typically the case within the corporate finance literature.

Design/methodology/approach – Under the framework of ordinal logistic regression, the paper also tests whether there is evidence of hierarchical preference ordering as predicted by pecking order theory (POH) using field survey data for 2009.

Findings – The authors relate that new enterprises are more likely to prefer low cost and less risky or less formal financing such as internal or bootstrap finances. However, as the enterprise gets established or matures, its capacity to seek formal financing increases, thereby becoming more likely to prefer or being in a higher category of formal financing. While the paper affirms the POH, it is argued that this order is a consequence of severe persistent constraints other than sheer preference. The findings further reveal that, microentrepreneur's and MSE's-specific level socio-economic characteristics such as owner's education or financial literacy status, households tangible assets, ownership structure, enterprise size, as well as sensitivity to high interest rates in the credit market, to be important determinants of either past (start-up), present or future financing preference.

Originality/value – The main value of this paper is to analyse the determinants of financing preference of MSEs within the context of rural financial market (RFM) from a developing country perspective.

Keywords Ghana, Developing countries, Financing, Financing preference, Micro enterprises, Small enterprises, Pecking order theory

Paper type Research paper

1. Introduction

Modern financial intermediation in Ghana dates back to late nineteenth and early twentieth centuries. But the financial services sector was characterised by a myriad of problems embodying internal weaknesses and external setbacks. In 1983, the Government initiated the Structural Adjustment Program aimed at reversing more than



a decade of poor economic conditions and downturns in Ghana. The policy reform in respect of the financial sector, however, began in 1988 and was referred to as the Financial Sector Adjustment Programme (FINSAP). Prior to this, the country's financial system can best be described as shallow, fragmented and almost on the verge of collapsing as a result of excessive state control and weak institutional framework (Aryeetey and Udry, 1997). Mainly driven by liberalisation policies, FINSAP has led to enhancing the soundness and competitiveness of mainstream banking system through an improved regulatory and supervisory framework, restructured and capitalised distressed banks; deregulated interest rates, developed capital market, and allowed massive entry of foreign banks among others. However, the rural financial market (RFM), in particular, is still faced with a number of market imperfections that have characterised it with high risk, high transaction cost and uncertainties (Nissanke and Aryeetey, 2006). These have resulted in substantial market segmentations, where the formal institutions co-exist alongside, semi-formal and informal traditional institutions with very little linkages. In the paragraphs that follow, we briefly discuss key developments in each segment and the challenges they face in meeting the financing needs of microenterprises in Ghana.

The first is the conventional formal banking sector. This sector has experienced some tremendous growth both in number and expansion of branch network resulting in competitions since the FINSAP. For example, the number of banks has increased from nine at the time of the reforms to 26 (with about 750 branch networks) at the end of 2009. In addition to this are the Rural and Community Banks (RCBs). The RCBs have the main objective of bringing the rural population into mainstream banking system under rules designed to suit their socio-economic circumstances and the peculiarities of their occupation in farming and microenterprise activities. Together with their branches, the RCBs constitute the largest banking network in rural Ghana, now numbering 129 units with more than 486 branches scattered across all the ten regions of the country. However, despite this phenomenal growth, micro and small enterprises (MSEs) access to formal finance is still very restricted. A recent study by the World Bank (2008) indicates that the formal banking sector in Ghana reaches just about 5 percent of the population and even much less for the smaller enterprises. Mensah (2004) attributes this low use of formal finance in the country to the relatively undeveloped financial sector with low levels of intermediation, lack of institutional and legal structures that facilitate the management of small enterprise lending risk, high cost of borrowing and rigidities in interest rates.

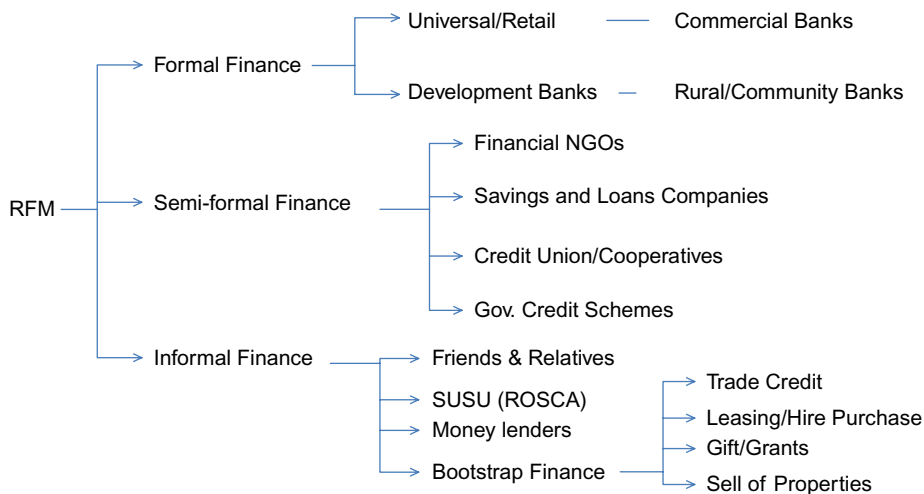
The next in the category is the Semi-Formal Finance. This mainly belongs to the non-bank financial institutions (NBFIs) that are registered under the NBFIs Acts 2008. There are about nine categories of financial institutions under the NBFIs. Among them are the Savings and Loans Companies, Credit Unions and some specialised MFIs, which even though are restricted to a limited range of services, are most active in micro and small-scale enterprise financing. These lenders, unlike conventional banks, appear more willing to accept the greater screening and monitoring costs involved in overcoming information asymmetry. For example, it is known that when formal banks lent to the rich, these microbanking lent to the poor. When banks lent to men, they lent to women. When banks made large loans, they made small ones. When banks required collateral, their loans were collateral free. For these reasons, governments and development agencies have persistently supported either directly or indirectly the promotion of these MFIs to stimulate

the flow of funds to MSEs. However, these efforts have largely failed to reach the majority of the intended beneficiaries. Among some of the underlying reasons are limited coverage, over-dependence on government and donor funds, pervasive political patronage and influence in as well as high default rates among the recipients (Mensah, 2004).

The third in the category is the informal financial institutions. By this, we refer to an array of financial institutions that are not regulated and fall outside all the banking laws of Ghana. These are the money lenders, pawnshops, SUSU, etc. The commonest one, however, is the SUSU scheme. This is a long-time traditional saving scheme currently undertaken by over 4,000 operators in Ghana and each serving between 400 and 1,500 customers daily (Barclays Press Release, 2005). The collectors offer very flexible financial services to their clients, which are patronised mainly by small traders at the market or roadside stalls. Beyond the provision of financial services, the informal finance is said to offer stronger social capital that MEs derive enormous social benefits which the formal financial institutions cannot offer (Alabi *et al.*, 2007). However, although it is the most patronised form of external financing, several studies (Nissanke, 2001; Aryeetey and Udry, 1997) have found their services to be inimical to small enterprises with growth potential. According to these studies, because the informal financial institutions are underdeveloped, fragmented, disorganised and charges astronomically high interest rates. They also offer short repayment periods and limited loan size that do not meet the financing needs of MEs.

In sum, however, as diverse as the formal, semi-formal and informal finances are, microborrowers in the country are preoccupied with the same issues as easiness, flexibility, affordability, availability and successful outcomes of loan demand. Thus, the majority are still constrained and often resort to unorthodox form of financing or what is now known as “bootstrap financing”. Generally, bootstrap financing has been defined as a variety of alternative routes or ingenious methods that owners can take to meet businesses’ financial needs without borrowing or without any traditional institutional commitments (Neeley, 2009). This is where business owners are encouraged to exploit personal resources such as selling of properties, or to request funding from relatives, to barter for services, to lease or hire equipment, or to obtain trade credit, etc. Although Clark (1994) finds three forms of credit utilised among market traders in Kumasi (Ghana), namely, advances of goods (i.e. trade credit or delayed payment), advances of capital (like angels funds) and cash loans, she points out that the most widespread is the advance of goods. This, according to her, is a form of advancement seen as less risky and less shameful since cash indebtedness is perceived to reflect a shaky financial condition. Figure 1 shows the structure of a wide range of financing preferences available to a microentrepreneur within the RFM in Ghana.

However, existing empirical literature on financing preference of a small enterprise has not taken these varieties of financing options and the access constraints they face into consideration. In particular, as it is well acknowledged that access to mainstream formal finance by MSEs in most developing countries is woefully limited, it is therefore difficult to tell whether a particular financing pattern is just an issue of preference or desperation borne out from limited access or constraints to formal finance. This further raises two main questions. Does the relatively limited use of mainstream formal finance (as proven in myriad of studies) a supply-side constraint or an issue of microentrepreneurial preference? What determines MSE financing pattern, does it conform to a hierarchical order as POH predicts?



Source: Authors

Figure 1.
The structure of financing
sources within the
RFM in Ghana

This study attempts to answer these questions by going beyond the conventional capital structure theory of debt-equity decision of the firm to investigate the drivers of the entire gamut of financing options available to a microentrepreneur within the rural financial system of Ghana. The study also departs from the previous studies by utilising both qualitative and quantitative analytical approaches not only at the enterprise start-up and working capital financing levels, but also their *exantes* or desired future financing needs. Our unique dataset also allows us to compare these preferences for any evidence of hierarchical preference ordering as predicted by POH. The study proceeds as follows: Section 2 briefly discusses the theoretical and empirical literature, and formulates the study testable hypotheses. Section 3 presents data description and some qualitative analysis while Section 4 presents econometric specification and discussion of the estimation results. Finally, Section 5 concludes and highlights policy and further research implications of the findings.

2. Theoretical and empirical review

A large body of theoretical and empirical literature have emerged on firm's external financing preference in the last three or more decades especially after the seminal work of Modigliani and Miller (1958). However, most of these studies have been developed within the corporate finance and capital structure frameworks of large and medium firms with very little attention paid to the small and microenterprises. The most popular among the theories are the static trade-off theory (STT) of capital structure pioneered by Kraus and Litzenberger (1973) and the pecking order theory (POH) of capital structure developed by Myers and Majluf (1984). The former explains the idea that a company chooses how much debt finance and how much equity finance to use by balancing the costs and benefits. This is done by considering a balance between the dead-weight costs of bankruptcy and the tax saving benefits of debt. Although, this Static theory has been vital and a sensitive research area for academics and practicing managers alike, Gebre (2009) points out that its application for MSEs in particular is limited.

This is because the STT requires a microentrepreneur to have financial sophistication and substantial reliable data in application of such techniques as value optimization and others, which is impracticable due to the peculiar nature of MSEs.

The POH, on the other hand, states that firms adhere to a hierarchy of financing preference, where internal finance is first preferred to any form of external finance. This is because internal finance incurs neither security issuing or flotation costs nor disclosure of financial information and, thus no transaction cost. According to the POH, if the external finance is needed, then debt, which is associated with less severe information asymmetry, is preferred over equity or bond issue. The simplicity of this hypothesis and the fact that SMEs are more faced with information asymmetry problem seem to suggest that financing decisions of MSEs are better explained by the POH than by the STT. Consequently, many recent studies (Gebru, 2009; Abor, 2008; Green *et al.*, 2002) of MSEs in Africa by exploring MSEs' financing preference, have attempted to explain in the context of POH. The conclusions, however, have been mixed. Whereas some have found their preference to be consistent with POH, others have not. For example, Green *et al.* (2002) studying MSEs' debt-equity and gearing decisions reach a conclusion that MSEs in Kenya obtain debt from a wide variety of sources. Likewise, a recent study by Gebru (2009), which investigates the determinants of financing preference of MSE's owners in Tigray state of Ethiopia also within the context debt-equity decision of the firm, concludes that MSE's financing preference generally conforms to the POH. However, Murray and Goyal (2003) have shown among other things that POH fails where it should hold, especially for small firms where information asymmetry is most probably an important problem.

However, the majority of these studies have paid little or no attention to the heterogeneity of the socio-economic status of these MSEs and the diverse nature of their economic activities. Neither have they considered the varying financing sources, constraints nor the "bootstrap financing" that the majority of MSEs often resort to when they are financially constrained. They have rather concentrated more narrowly on the debt-equity financing preference as if their preferences also fit squarely into the capital structure theories originally developed for corporate firms in developed countries. Selvavinayagam (1995), for example, argues that such diversity among MSEs would mean that their demand for external finance and financing pattern may not be determined by a unique financial structure or a uniform approach. He points out that much more focus has to be on the institutional mix, the product variety and the operational approaches that is compatible with the characteristics of different socio-economic categories if their demands for financial services are to be met satisfactorily. This view point appears to be supported by Hamilton and Fox (1998). They also argue that the diversity of small business and entrepreneurial firms suggests that managerial beliefs and desires will play an especially important role in determining capital structure and so "[...]models must include the role of management preferences, beliefs, and expectations if we are to better understand capital structure policy". In the same vein, Gebru (2009) concludes that there are elements that could determine MSE owners' financing preferences that require better understanding before a reliable prescriptive position on MSE's financing can be reached.

In the light of the above, we argue that to better understand MSE's financing preference and for POH to better explain these preferences, it is important that research is done within the context of the rural financial system and the access constraints

emanating from information asymmetry and the complex socio-economic circumstances of MSEs. Whereas in industrialised countries debt levels of MSEs have been shown, in some cases, to reflect a demand-side preference ordering and are not just the manifestation of severe supply-side deficiencies (Hamilton and Fox, 1998), the same cannot be said of MSEs in developing countries.

2.1 Is there hierarchical preference ordering?

In this respect, as mentioned in Lean and Tucker (2001), we postulate that the rural financial credit system exist on a continuum whereby their lending criteria can be measured anywhere from purely non-commercial through to purely commercial or purely formal to purely informal. At the commercial extreme, exists conventional or mainstream formal and semi-formal banks whereas towards the informality or non-commercial extreme exist informal or bootstrap finance to self-finance. According to the POH, as also cited in Abor (2008) and Hussain and Matlay (2007), the order of the preference is from the one that is least sensitive (and least risky) to the one that is most sensitive (and most risky) that arise because of asymmetric information between corporate insiders and less well informed market participants. Evidence abounds that microentrepreneurs tend to rely heavily on their past savings, followed by informal sources of credit from family and friends, particularly at business start-up stage (Paul *et al.*, 2007; Aryeetey *et al.*, 1994).

From this discussion we hypothesized for the purposes of incremental preference ordering as follows:

- H1.* At the very start of microenterprise establishment without any reputation or collateralable assets, internal finance would be preferred to external finance as it is of zero cost and has no problem whatsoever with problems relating to information asymmetry. Or in a bid to avoid intrusion or external control internal finance will also be preferred even for established enterprises.
- H2.* If internal finance depletes or is non-existent, as in some cases, and MSE decides to hold any debt or borrow externally, non-cash debt such as suppliers' credit or other forms of bootstrap finance will be preferred over the traditional informal sources of financing, not only because of the least cost or almost the non-existence of information problem, but also because it is a traditionally well patronised practice which is less perceived to be shameful.
- H3.* If there is the need to borrow money, informal type of financing would first be preferred over the semi-formals because of familiarity, flexibility, easiness and the social benefits it offers regardless of the cost as well as the system inherent mechanisms of overcoming information problem such as application of social sanctions.
- H4.* Over time as enterprise gets established, shows prospects of growth and gains some experience, but still not having enough collateral or the capacity to borrow from mainstream finance, then semi-formal financing becomes the best option. Since most of the MFIs relax, while accepting some part of screening and monitoring cost.
- H5.* As more time passes, enterprise matures, reputation is built and confidence is gained, the desire for long-term finance for growth and expansion becomes

more irresistible. Working capital or long-term finance for investment would then be preferred or desired from mainstream formal finance, since the enterprise then becomes more acceptable to the banks.

3. Econometric analysis

3.1 Model specification

From the discussion, we can assume an ordinal or incremental financing preference based on the degree of formality or speed and ease of access as relates to information asymmetric problem. Accordingly, we investigate this hierarchical or incremental preference ordering in three important stages of firm's financing, namely start-up, working capital/on-going financing and exante or desire future financing preference. Thus, our dependent variable for this analysis can be assumed as ordinal. When the dependent variable is ordinal, its categories can be ranked from low to high allowing us to apply ordered probit or ordered logit model (also known as ordered logistic regression or PLUM). Greene (2008) observes that ordered probit or logit models have come into wide use as a framework for analysing responses that can be ranked or inherently ordered.

Providing a simple explanation to ordered logit model, Aaron (2005) shows that the ordered logit model depends upon the idea of the cumulative logit, which also in turn relies on the notion of the cumulative probability. We can then think of the cumulative probability C_{ij} as the probability that the i th individual is in the j th or higher category:

$$C_{ij} = \Pr(y_i \leq j) = \sum_{k=1}^j [\Pr(y_i)] = K \quad (6.1)$$

This cumulative probability can then be converted into the cumulative logit:

$$\text{Logit}(C_{ij}) = \log\left(\frac{C_{ij}}{1 - C_{ij}}\right) \quad (6.2)$$

This ordered logit model can simply model the cumulative logit in a form of a linear function of explanatory variables as:

$$\text{Logit}(C_{ij}) = \alpha_i + \beta x_i \quad (6.3)$$

The coefficient, β suggests that a one-unit increase in the explanatory variable leads to an increase in the log-odds of being higher than category j . We therefore apply an ordered logit model to explore the determinants of MEs financing preference and to examine whether there is incremental preference ordering among MSEs. We simply re-write equation (6.3) as:

$$Y_{ij}^* = \beta x_{ij} + \varepsilon \quad (6.4)$$

Where Y^* represents the latent variable denoting the unobserved propensity of microentrepreneur i for choosing external financing j . The variable \mathbf{x} is a vector of explanatory variables representing specific enterprise level and microentrepreneur's demographic characteristics which we have explained in the subsequent section. The coefficients β is the parameters to be estimated.

Although Y^* is unobserved, we do observe an ordinal relationship as:

$$Y = \begin{cases} 0, & \text{if } Y^* \leq 0 & = \text{internal finance} & (6.6) \\ 1, & \text{if } 0 < Y^* \leq \mu_1 & = \text{bootstrap finance} & (6.7) \\ 2, & \text{if } \mu_1 < Y^* \leq \mu_2 & = \text{informal finance} & (6.8) \\ 3, & \text{if } \mu_2 < Y^* \leq \mu_3 & = \text{semi - finance} & (6.9) \\ 4, & \text{if } Y^* > \mu_3 & = \text{formal finance} & (6.10) \end{cases}$$

The μ_i 's are unknown parameters to be estimated with β a.

Where, 0 = internal finance; 1 = bootstrap finance; 2 = informal finance; 3 = semi-formal finance; 4 = formal finance. A positive (negative) value indicates that a one unit change in any of the explanatory variable increases (decreases) the odds of being in a higher category. Equation (6.11), therefore, represents the final substantive equation to be estimated with ordered probit model. Hereafter, we explain in detail the explanatory variables and their hypothesized signs:

$$Y_{ij} = \beta_0 + \beta_1 \text{Age(New, Established, Mature)} + \beta_2 \text{Size} \\ + \beta_3 \text{Financial Viability} + \beta_4 \text{Asset Structure} \\ + \beta_5 \text{Ownership Structure} + \beta_6 \text{Interest Sensi} \quad (6.11)$$

3.2 Description of explanatory variables

Within the context of information asymmetry and RFM, credit evaluation literature suggests five traditional characteristics that can be related to microenterprise creditworthiness, which are five C's: Capacity, Capital, Collateral, Character, and Conditions (Wu and Guan, 2008). Accordingly, in what follows, we endeavour to explain MSEs' financing preference within the context of capital structure literature and the peculiar institutional environment in the informal economy.

Age. Consistent with Hamilton and Fox (1998) classification of firms and in order to test the hypothesis that there is a hierarchical preference ordering in microenterprise financing, we model three age categories of microenterprises as "New" (i.e. aged 3 or less, $i \leq 3$), "Established" (i.e. aged between $4 \leq i \leq 10$ years) and "Mature" (i.e. aged more than 10, $i \geq 11$ years). Firm's age has long been seen as a standard measure of reputation within the capital structure literature (Diamond, 1989; Abor, 2008). As a firm age, it establishes itself as a continuing business and it therefore increases its capacity to take on more debt or external finance (Green *et al.*, 2002). Thus, established and matured enterprise's preferred working capital or exante future financing preference are expected to correlate positively with the likelihood of accessing funds from formal banks, whereas the "New" enterprises are expected to be negative correlating more with informal finance.

Size. With regard to size of operation, the smaller the business the more likely owner/managers will utilise or prefer internal finance or a less formal financing source (Abor, 2008). The number of paid employee is therefore considered as a proxy for enterprise size and it is expected to positively correlate with higher category of formality ($\beta_i > 0$).

Financial viability. Enterprise's profit status or past sales growths is often a good proxy for financial viability and loan repayment capacity of the enterprise. Theoretically, whereas the POH predicts an inverse relation between profitability and external financing preference because it is less risk relying on retained earnings, the STT postulates a positive relationship. This is because STT model predicts that profitable firms will employ more debt since they are more likely to have a high tax burden and low bankruptcy cost (Abor, 2008). In this regard, the relationship could be described as ambiguous ($\beta_i > < 0?$).

Asset structure. Enterprise with title to assets such as land, building, etc. is more likely to seek external finance, but using land ownership as a proxy for asset tangibility, Green *et al.* (2002) argue otherwise. According to them, ownership of or ability to rent tangible assets is an indicator of wealth, which makes them more likely to use their own equity or internal finance, at least to start a business. Consequently, the expected relationship between the asset structure and financing preference is ambiguous ($\beta_i > < 0?$).

Ownership structure. It is often the case that many microentrepreneurs do not seek external finance because they fear intrusion or do not want to lose ownership control over their businesses. Gebru (2009) argues that MSE owners that are established as either sole proprietors prefer to exhaust internal sources of finance before going for debt or equity in conformity with POH. Using the proportion of profit that is kept by the owner as a proxy for ownership type, we expect a negative relation with a higher category of financing.

Interest sensitivity. Besides the above factors, the order of preferences is also widely believed to reflect the relative costs and risk of various financing options (Myers and Majluf, 1984). Likewise, among the local traders in Ghana, Clark (1994) contends that the main determinants of each type of loan demand are interest rates, risk, terms of repayment, and moral connotation which relates to one's cultural or religious beliefs towards the use of credit. Thus, we use microentrepreneur's sensitivity to the prevailing market interest rates to measure risk aversion. Interest sensitivity is expected to have a negative relation ($\beta_i < 0$) with the higher category of preferences since interest rates in the country is generally believed to be much higher than the relative returns of MSEs.

Heterodox factors. The above factors are particularly important for ongoing finance (i.e. working capital) or future financing preference. However, for start-up capitals, since the owner may be unable to provide evidence of good financial performance, track record or reputation, owner's character or demographic characteristics, which are seen as heterodox in corporate finance models, then becomes an important measure of repayment ability (Hamilton and Fox, 1998; Green *et al.*, 2002). Hamilton and Fox (1998) maintain that such characteristics include their diversity, and the stage of development of their location. Thus, we consider such variables as owner/manager's in educational attainment, gender, having bank deposit account (as a measure of relationship), keeps records of business activities (proxy for transparency), location (proxy for proximity or traveling cost), etc.

3.3 Data source

The data for this paper was based on a field survey conducted in the Ashanti region of Ghana, in August 2009. As described in detail the data sampling procedure in Chapter 5, the choice of Ashanti region was appropriate in that besides being the most populous region in Ghana, its capital, Kumasi has one of the highest informal economic activities

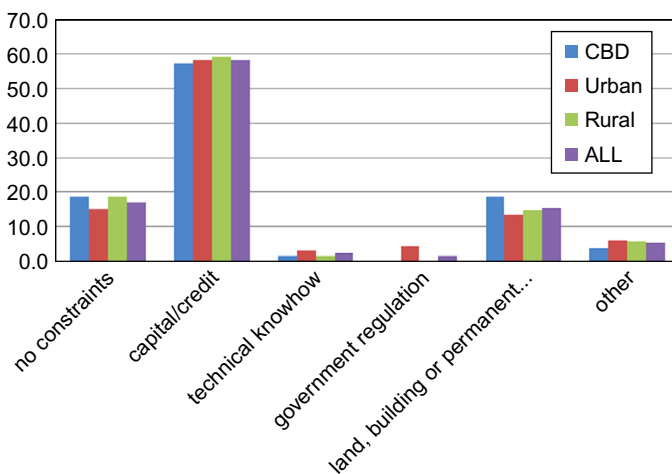
second only to the capital, Accra (Aryeetey and Udry, 1997). Geographically, being on the middle belt of the country, the region's unique centrality makes it a traversing point for migrants and traders from all parts of the country. The region also displays additional character of modernity and tradition, the extreme poor and the wealthy, the highly educated and the illiterates as well as a very large representation of both informal and formal financial institutions.

Using a simple random sampling technique, we collected data based on the following three strata – sector of activity, geographical location and enterprise size. We first divided the enterprise population into three sub-strata – services, manufacturing (including construction), and primary-related activities. On geographical distribution, three socio-economically important locations were stratified namely the central business district, sub-urban and rural location. Using structured questionnaires, we collected quantitative usable data on some 176 microenterprises which employs ten or less persons within the Kumasi metropolis and from ten villages across the region. To achieve the study objectives, we obtained data on enterprise and owner's socio-economic characteristics, financial performance, choice of financing sources, perception of access to and use of credits, collateral, etc.

4. Primary results and descriptive statistics

4.1 Enterprise start-up: what is the most binding constraint?

Limited access to finance is often mentioned as the greatest constraint to start-up capital and growth of microenterprises. This was confirmed by our field survey as capital was cited by microentrepreneurs as the greatest constraint (58.2 percent) they faced in setting up their businesses (Figure 2). However, Figure 2 also shows that MSEs in the rural areas (59.3 percent) are more likely to have problems raising capital than their counterparts in CBD and suburb. This is not surprising; in that, the generally low income of rural dwellers coupled with limited number of financial institutions and the high risk often associated with them mean that they are more likely to be financially constrained (GSS, 2008)[1].



Source: Field Survey, August 2009

Figure 2.
MEs' start-up constraints

4.2 Sources of start-up capital

Given the overriding evidence of MSEs' limited access to mainstream formal finance, due to the perceived high risk often associated with the sector and the inability of the microentrepreneurs to provide viable business plan or collateral, especially at the start-up, MSEs have to rely on personal or household savings and/or informal credit or bootstrap financing sources. The survey results show that the most important source of start-up capital is personal or household savings (67 percent), followed by financing from informal financial institutions (19.3 percent) such as friends and relatives, SUSU and money lenders (Table I). Among all MSEs only few sourced credit from the formal commercial banks (3.4 percent) and semi-formal financial institutions (1.1 percent). Start-up capital from bootstrap finance (9.1 percent) such as supplier's credit is also quite significant compared to the other sources.

4.3 On-going finance/working capital

With regard to working capital, only about three in 20 (15.9 percent) actually borrowed money to finance their working capital needs. The majority, 65.9 percent, utilised internal or self-raised finance, while a significant percentage (18.2 percent), used bootstrap finance such as trade credit, leasing, etc. Among those who sought external finance, the majority (53.5 percent) came from the formal financial institutions with 35.8 and 10.7 percent sourced from the semi-formal and the informal financial institutions, respectively (Table I).

4.4 The desired or ex ante future financing preference

Looking forward, we asked microentrepreneurs what kind of finance (both in terms of price non-price term and conditions as well as institutional sources) they believed would help their businesses to grow, or they would choose if they were to make a choice in the future. Beginning with non-price terms and conditions, the greater number of the respondents (42.5 percent) mentioned long-term loan with the least been an overdraft facilities (0.6 percent) (Table II). This should be expected since overdraft facilities are rarely offered by any of the banks in Ghana. If it is even offered at all, it is usually given to the large companies (Abor, 2008).

4.4.1 Price term: interest sensitivity. Interest rate or cost of borrowing in Ghana is one of the highest in West Africa. At the time of the survey, lending rates within mainstream credit market was averaging 35 percent, and even much higher those charged by the informal financial institutions. The primary evidence reported here indicates that the current high level of lending rates in the country is a major concern or a disincentive for external financing preference. Almost all (82.6 percent) of the microentrepreneurs

Finance type	Start-up capital (%)	Working capital (%)	Future preference (%)
Formal finance	3.4	8.5	42.6
Semi-formal	1.1	5.7	19.3
Informal	19.3	1.7	11.9
Bootstrap finance	9.1	18.2	17.0
Self-finance	67.0	65.9	9.1

Table I.
MSEs' preferred source
of finance

Source: Field Survey, August 2009

Type of loan needed	%	Purpose for the loan	%
Long-term loan	42.5	Fixed capital for land, tools, stall	28.7
Short-term loan	12.5	Renovation	6.8
Over draft facilities	0.6	Working or operating capital	34.2
Easy and faster access	15.6	Emergency needs	5.5
Suppliers credit, hire purchase	11.9	To support cost of living	15.1
Indifferent	3.8	To pay past debt	4.1
NA	9.4		
Other	3.8	Other	5.5
Total	100.0	Total	100
No. of observation	160.0	No. of observation	73

Source: Field Survey, August 2009

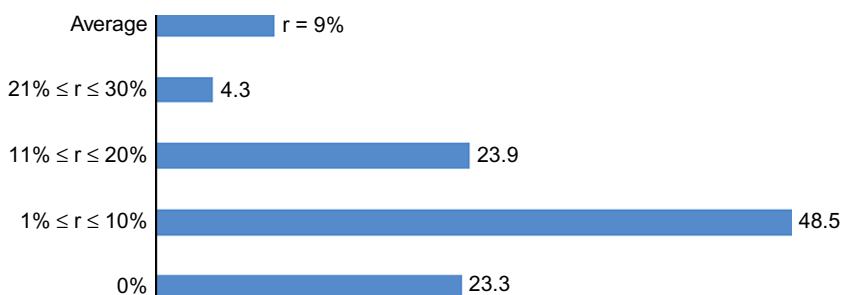
Microenterprise
financing
preference

95

Table II.
Non-price term and
conditions of preferred
loan and purpose

believed that the prevailing market interest rate for bank loans were too high for their business to afford. When they were asked to indicate the rate of interest their business can afford, an average lending rate of 9 percent were mentioned with almost five in ten (48.5 percent) microentrepreneurs indicating between 1 and 10 percent (Figure 3). Surprisingly, however, over 23 percent of ME owners or managers would prefer loans with zero interest rate. Furthermore, a little over six in ten (63.5 percent) of all cases generally disagreed with the statement that higher interest rate does not matter so long as one gets easy and flexible access to formal bank loans. The high lending rates constraint is also shown by the fact that more than seven in ten (76.2 percent) of microentrepreneurs will not hesitate to apply for a bank loan if the prevailing interest rates were to be cut by half.

4.4.2 Which of the external financing sources will MSEs prefer? Regarding a desired future financing source, the highest preferred source was formal bank finance. While approximately 45 percent of the microentrepreneurs would choose formal bank finance, only 19.3 percent would prefer semi-formal finance with informal finance (11.9 percent) being the least preferred (Table I). This outcome is quite surprising. However, if we juxtapose that on the fact the majority would prefer long-term financing in the future as mentioned above, then neither semi-finance nor the informal finance was the solution for their financing need. It is the formal commercial banks, which are known to have the capability to offer long-term debt financing (Jaramillo and Schiantarelli, 2002); and the MSEs appear to know that too well.



Source: Field Survey, August 2009

Figure 3.
Lending rates
microenterprises
can afford (%)

Quite interestingly, the most common reason (31.75 percent) for preferring a particular source was because he/she is a long-term customer of the institute or a group member (Table III). This particular reason featured most prominently (37.5 percent) among those who would choose formal banking source. This underscores the importance of relationship banking and also group membership which, as previously mentioned, helps to assuage agency problems. It is said to lead to low cost of information acquisition and peer monitoring. However, over 30 percent of the respondents who chose formal finance cited other as the reason for their choice. This may constitute those who choose either by default or were made to open an account before loan is granted. As expected, approximately half (50 percent) of MSEs who prefers informal finance, cited closeness and convenience as the dominant reason.

4.5 Is there evidence of hierarchical order of preference?

From the preliminary results discussed so far; does it point to a hierarchical preference ordering as predicted by POH? Table I reveals an emerging pattern that appears, on the face value, to support this hypothesis. The evidence here affirms our earlier believed that at the pre-start and start-up, microentrepreneurs have a strong preference for using personal and informal sources of finance, and that the use of external debt finance particularly bank loan becomes more common and most preferred once the business is up and running (Wyer *et al.*, 2007). At the start-up, besides almost 70 percent of capital raised from personal or household saving, those who decided to seek external finance, slightly more than three quarters (76 percent) obtained it from the existing informal institutions.

However, as the enterprise gets established, while formal bank debt consistently increased from 3.4 percent at start-up to 8.5 percent as working capital to a much higher 42.6 percent in the future, both the internal finance and informal finance decreased. Preference for Internal-finance decreased drastically from an average of 66.5 percent between start-up and working capital to just about 9.1 percent in the future preference. For the majority to reveal their future financing preference for formal sources is an indication that the huge percentage of MSEs that use internal finance, either as start-up or working capital, does so not because of preference, as is the case in most part of developed world. But, as a consequence of severe constraints they face either voluntarily or involuntarily in accessing external finance, particularly from the formal finance (Table IV).

Reasons	Formal	Semi-formal	Informal	Trade credit	Total
A long-time customer or a member of a group	37.5	33.3	25.0	100.0	31.7
Close and convenient	12.5	8.3	50.0	0.0	24.4
Did not require collateral	6.3	16.7	0.0	0.0	7.3
Interest rate low	0.0	8.3	0.0	0.0	2.4
Personal relationship	6.3	0.0	0.0	0.0	2.4
Offers easy and flexible service	6.3	33.3	25.0	0.0	17.1
Other	31.3	0.0	0.0	0.0	14.6
Total	100.0	100.0	100.0	100.0	100.0

Table III.
Reasons for
choosing a particular
financing source

Source: Field Survey, August 2009

Variables	Description	<i>n</i>	Mean	SD	Hypothesized sign
MSE size	Average number of paid employees	111	2.8	0.782	+
Age of the owner	Mean age of the owner	176	36.7	0.310	+/-
Educational attainment	Mean number of years spent in school	176	9.6	1.186	+
Gender	= 1, if female; 0 male	175	0.313	0.463	-/+
Bank deposit A/C	= 1; 0 otherwise	176	0.333	0.489	+
Awareness	= 1; if it is aware of alternative forms of financing; 0 otherwise	176	0.455	0.499	+
Negative perception about debt	= 1; 0 otherwise	176	0.409	0.491	-
Net profit margins	Net profit divided by total revenue profit	176	0.54	0.503	-
Interest sensitivity	= 1; if owner thinks lending rate matters more than easy access to credit; 0 otherwise	176	0.633	0.498	-
Registered	= 1; 0 otherwise	176	0.415	0.499	+
Location	= 1, if located in the CBD	176	0.250	0.475	+
	= 2, located in suburb		0.386	0.477	-
	= 3, if located in rural area		0.364	0.464	-
Household assets	= 1, if ME household owns land or building	176	0.614	0.500	+
Assets structure	Weighted index of assets of MSEs (natural logs)	168	1.9	0.698	+
Ownership structure	Percentage of profits retained/shared by the owner (100% = sole proprietor)	176	0.902	0.191	-
Age of enterprise	New (≤ 3 years); = 1	176	0.268	0.452	-
	Established ($4 \leq i \leq 10$ years); = 2		0.472	0.500	+
	Mature (≥ 11 years) = 3		0.259	0.434	+
Skill training	= 1, if owner/manager has ever received skill training	174	0.561	0.499	+

Source: Field Survey Data, August 2009

Table IV.
Descriptive statistics of
the explanatory variables
and hypothesized signs

4.6 Regression results

The ordered logit or the PLUM-ordinal regression results for determinants of start-up capital, working capital and future financing preference are presented in Tables V and VI. We used the same set of explanatory variables in both working capital and future financing models, which are both presented in Table V. However, for the start-up model, we dropped certain variables such as profitability, age, size, etc. that we believe are important only when the enterprise is on-going. Even though Green *et al.* (2002) tested some of these variables in an initial capital determinants equation, they were cautious about their interpretations since, according to them; they all tend to have retrospective and ambiguous effects.

The threshold portion of the estimation results shows the constants/intercept terms. We emphasize here again that our interest is to determine the direction of the relationship between each predictor and the ordinal nature of the categorical outcome. A positive sign for the estimated parameters means higher categories are more

Threshold	Working capital estimates		Future finance estimates	
	Coefficient	SE	Coefficient	SE
Internal = 0	-4.142 ^{**}	1.993	-5.435 ^{***}	1.481
Bootstrap = 1	-3.135 [*]	1.977	-3.661 ^{**}	1.426
Informal = 2	-2.934	1.975	-2.964 ^{**}	1.411
Semi-formal = 3	-2.230	1.973	-1.599	1.384
Formal = 4				
Variables				
Asset structure	0.622	0.447	-0.182	0.331
Awareness	1.092 [*]	0.560	0.381	0.426
Book keeping	0.631	0.570	0.645 [*]	0.446
Deposit account	1.300 ^{**}	0.584	0.301	0.448
Educational Attainment	-0.328 [*]	0.202	0.408 ^{**}	0.162
Enterprise size	0.797 ^{**}	0.372	0.054	0.287
Established MSE	2.079 ^{**}	0.924	2.189 ^{***}	0.507
Gender	-0.373	0.579	-0.382	0.476
Interest sensitivity	0.176	0.551	-0.974 ^{**}	0.442
Matured MSE	3.747 ^{***}	1.002	1.895 ^{***}	0.598
Negative perception	-0.255	0.557	-1.046 ^{**}	0.438
Net profit margin	-0.135	0.848	-0.527	0.521
Ownership structure	1.161	0.933	-1.344 [*]	0.773
Registration	1.202 ^{**}	0.598	0.221	0.446
Rural location	0.101	0.634	0.315	0.536
Sub-urban location	-1.057 [*]	0.643	0.203	0.516
Cox and Snell (R ²)		0.364		0.420
-2 log likelihood		164.323		251.553
No. of observation		141		138

Table V.

Ordered probit regression results of MSEs' financing preference

Notes: Significant at: ^{*}10, ^{**}5, and ^{***}1 percent levels; NB: the estimates for age categories use the "New variable" as a reference category while the estimates for *Location* variables use CBD as a reference category

probable, whereas a negative sign means lower categories are more probable. However, where necessary, we will endeavour to explain some of the results in terms of Odds ratio (OR), which is simply by taking the exponential of the estimates.

Beginning with the age category variables, namely *New*, *Established* and *Mature*, the results are robustly significant and consistent with the study hypothesis. The positive signs reveal that for *Established* and *Mature* enterprises, compared to *New ones*, have a higher probability to be in a higher category in both ongoing and future financing sources. This also suggests that new enterprises are more likely to prefer either internal or less risky financing such as bootstrap or informal financing such as supplier's credit or SUSU schemes. However, as the enterprise gets established or matures its capacity to seek formal financing increases and thus are more likely to prefer or being in a higher category of formal financing. This result is consistent with Abor (2008)'s finding that age is an important determinant of SMEs' capital structure as older SMEs tend to depend more on long-term debt. According to him, since SMEs do not have access to the public equity market, long years of business could signify long business relationships with external debt providers and that increases their chances of acquiring external long-term debt finance. The results therefore appear to support the POH that firms adhere to hierarchical preference ordering.

Threshold	Start-up capital estimates		SE	Microenterprise financing preference
	Estimates			
Internal = 0	1.883		2.159	99
Bootstrap = 1	2.481		2.163	
Informal = 2	4.461**		2.194	
Semi-formal = 3	4.731**		2.201	
Formal = 4				
Variables				
Age of the owner	0.352		0.571	
Awareness	0.455		0.377	
Bank deposit account	1.344***		0.425	
Education attainment	0.664***		0.228	
Gender (Female = 1)	1.007**		0.389	
Household assets	1.411***		0.383	
Interest sensitivity	0.027		0.390	
Negative perception	-0.582		0.415	
Ownership structure	-0.131		0.871	
Registration	0.369		0.376	
Rural location	-0.917**		0.461	
Skill training	-0.484		0.368	
Suburb location	0.516		0.465	
Cox and Snell (R ²)	0.261			
- 2 log likelihood			275.399	
No. of observation			157	

Note: Significant at: *10, **5, and ***1 percent levels

Table VI.
Ordered probit regression
for determinants of
start-up capital

Comparing the results of the *education attainment* variables in all the three models appears to be mixed, but interesting. Whereas it shows up significantly positive in both the start-up and future financing models, it is negative in the working capital model. The positive signs suggest that one year increase in the number of years a microentrepreneur spent in school will result in an OR, $\exp(0.664) = 1.942$ and $\exp(0.409) = 1.505$ increase in odds of being in a higher category of formal finance for a start-up capital and future financing, respectively. For start-ups, as there is no history of enterprise's performance, human capital then becomes "a collateral substitute" or a measure of reputation and competence to guarantee loans from mainstream formal finance as this may signal loan repayment ability of the would-be entrepreneur (Cressy, 1990). On the contrary, the negative sign of *education* in the ongoing finance estimation results, suggests that a highly educated microentrepreneur is less likely to prefer formal finance. This is quite surprising, counter intuitive and inconsistent with most previous studies thus making it difficult to assign any plausible reason for this outcome.

However, the *awareness* variable that also proxy for financial literacy is positive and significant in the working capital model but not in the other two. Although weakly, it may suggest that microentrepreneurs who are aware of the availability of alternative forms of financing are more likely to be in the higher category. This seems consistent with the argument that the decision on the choice of credit source is partly determined by the information available to the potential borrower on the available sources and their specific requirements (Kimuyu and Omiti, 2000). The results also reveal that *bank deposit* variable is statistically significant and positive in both start-up and working capital models,

but not in the future financing model. This finding underscores the importance of relationship banking in mitigating information asymmetry problems as microentrepreneurs who have a bank deposit account are more likely to prefer or gain access to formal banking loans. Similarly, the MSE's *registration status* variable is significant with the expected positive sign in the working capital model. This seems to suggest that if the enterprise is up and running, its legal status as proxy by *registration* becomes important for accessing formal loans. If the MSE is registered, it might reflect a compliance and more serious and organised business venture for a bank to have the confidence to advance a loan.

The results of the study show significantly positive relationship between the *book keeping* variable and formal finance in the working capital model but insignificant in both start-up and future finance models. Although weak, the result suggests that book keeping, which proxy for financial management capacity of MSE as well as a reflection of transparency within the corporate finance literature (Greene *et al.*, 2002), increases the odds of being in the higher category or preferring a more formal financing.

The results further show that the *interest sensitivity* and *negative perception* of the use of credit variables are significant with negative signs in the future financing preference, but not in either start-up or ongoing finance models. Consistent with a study by Clark (1994), these results suggest that MSEs with negative perception of indebtedness or credit are less likely to seek external finance. Likewise, MSEs who are sensitive to the high current interest rates in the credit market are less likely to demand credit from a more formal financing source or more likely to use a less risky or low cost financing such as internal or other bootstrap forms of financing. Notwithstanding the fact that the pre-existing financing sources are not significant, the ever increasing lending rates within mainstream formal financing system and even much higher within the informal markets, suggest that MSEs' future financing preference will be more sensitive to high lending rates. They are more likely to prefer using their own internal funds or at the very least bootstrap finance, if they are to seek external finance.

For *Gender*, females compared to males have a higher probability to be in a higher category as the coefficient is statistically significant and positive albeit in the start-up model only. This suggests that while at the business start-up, females are more likely to have access to formal banking credit than their male counterparts, as the business is up and running there is no major difference between the two as far as financing preference is concerned. This is not only surprising, but also an indication of the fact that many women are beginning to assert themselves in the credit market.

However, in terms of location, the results show that the rural *location* and *suburban* variables compared to *CBD* have negative and significant relationship with higher category of formal financing in the start-up and working capital models, respectively. This suggests that MSEs located in the sparsely populated and low income communities compared to those in the CBD are more probable to be in the lower category or use more low cost financing at the start-up and as ongoing finance. The outcome seems to be consistent with the POH and supports Carling and Lundberg (2005) argument that information asymmetry problem increases with distance.

Unlike Abor (2008) and Green *et al.* (2002), the results on assets do not appear to support the notion that asset structure of the firm is a significant determinant of debt or external financing preference as the results in both working capital and future financing models are not significant. However, when we used owner's household assets such

as building or land in the start-up model, the result is robustly significant and positive. The plausible reason for these outcomes is that since most MSEs only work with simple tools and movable assets which are of low collateral value and thus not acceptable by banks, asset structure is unimportant factor in their financing preference. Nonetheless, if microentrepreneur can post a title to a landed property or a building, especially at the business start-up stage, it is more likely to get access to a formal finance. On the *enterprise size*, the result is consistent with most previous studies and the study hypothesis. The significant positive sign, albeit only in the working capital model, seems to suggest that relatively bigger MSEs are more likely to be in the higher category of debt financing.

In the case of *ownership structure* variable, however, the coefficient is negative and statistically significant in the future financing preference model. This means that for every 1 percent point increase in profit that is not shared with anyone will result in $OR \text{ of exp}(1.344) = 3.88$ increase in odds of being in a lower category of the ordinal financing outcome. Consistent with the POH, the results suggests that as the level of interference/intrusion increases from sole proprietorship, partnership to company, where profits have to be shared among partners/equity holders, preference for formal finance increases. This finding supports Hamilton and Fox (1998) and Gebru (2009) studies who generally conclude that MSE owners operate without targeting an optimal debt-equity ratio, but rather reveal a strong preference for those financing options that minimise intrusion into their business.

Robustness checks

In order to check the robustness of our results, we run two other alternative regressions, using Logistic regression estimation model and ordinary least square method (OLS). The dependent variable for these estimations was the same as the one used in the ordered model, except that for the logistic model; we split the five financing preferences (i.e. formal, semi-formal, informal, bootstrap and self-finance) into two binary choice model as external versus internal finance (or like a debt-equity dichotomy). Thus, we assigned the value one, if the financing preference can be categorised as external and zero, if internal. The estimation results, as presented in the Tables VII and VIII, largely support the findings discussed above and lend credence to the fact that MSEs' financing preference within the RFM conforms to the POH.

5. Conclusion

We have analyzed the determinants of MSE's financing preference in the context of the entire gamut of financing options available to a microentrepreneur within the RFM in Ghana. We therefore categorised this range of financing choices broader than what is usually the case in the capital structure literature into formal, semi-formal, informal, bootstrap and internal finances. Basing this categorisation on the speed and ease of access, the degree of formality, cost and risk as pertain to information asymmetry problems; we tested whether there is an evidence of hierarchical ordering of financing preference as predicted by POH among MSEs.

The analyses of the preliminary results reveal that at start-up, microentrepreneurs have a strong preference for using personal, bootstrap and informal sources of finance, and that the use of external debt finance, particularly formal bank loan, becomes more common and most preferred as the business is up and running. This was somewhat confirmed by the results of ordered regression estimation for our working capital

Table VII.
Determinants of
financing preference:
OLS and logistic
regressions results

	Logistic regression		Working capital		Future preference		OLS regression		Working capital	
	B	SE	B	SE	B	SE	B	SE	B	SE
Asset structure	-0.355	0.460	-0.547	417	-0.054	0.196	0.104	0.208		
Awareness	0.245	0.668	0.912	0.615	0.159	0.247	0.324	0.262		
Bank deposit account	0.002	0.734	1.372**	0.583	0.202	0.255	0.666**	0.271		
Book keeping	0.340	0.733	0.078	0.600	0.232	0.254	0.471*	0.270		
Education attainment	0.149	0.226	-0.114	0.194	0.174**	0.087	-0.041	0.093		
Established MSE	1.158	0.832	-1.272**	0.662						
Gender	0.048	0.771	-0.332	0.616	-0.006	0.268	-0.086	0.284		
Interest sensitivity	-1.050	0.725	-0.169	0.588	-0.503**	0.256	0.034	0.272		
MSE size	-0.355	0.451	-0.370	0.386	-0.002	0.160	-0.197	0.170		
Mature					-0.275	0.291	1.153***	0.308		
Negative perception	-1.508**	0.681	0.130	0.589	-0.693**	0.251	-0.131	0.266		
Net profit margin	-0.197	0.838	-0.463	0.875	-0.204	0.293	0.180	0.311		
New MSE	-2.398***	0.841	-3.334***	1.022	-1.346***	0.273	-0.417	0.289		
Ownership structure	-3.990	2.576	2.784	1.759	-0.853	0.618	0.520	0.655		
Registration	0.435	0.693	0.827	0.611	0.147	256	0.532**	0.266		
Rural location	-0.132	0.791	0.689	0.685	-0.123	0.288	0.419	0.305		
Suburb location	0.464	0.738	-0.823	0.665	-0.217	0.293	0.353	0.311		
Constant	6.239**	2.684	-2.884	1.921	4.213***	0.706	-0.753	0.748		
Durbin Watson						2.2		2.1		
R-Square		0.204		0.305		0.446		0.369		
-2 log likelihood		72.267		93.606						
Percentage correct		87		79.6						
Observation		108		108		111				111

Note: Significant at: *10, **5, and ***1 percent levels

Variables	Start-up capital OLS regression		Logistic regression		Microenterprise financing preference
	B	SE	B	SE	
Age of the owner	-0.013	0.263	0.180	0.613	103
Awareness	0.225	0.165	0.501	0.414	
Bank deposit account	-0.522***	0.180	-1.639**	0.471	
Education attainment	0.163**	0.070	0.382**	0.196	
Gender (Female = 1)	0.485**	0.176	1.263***	0.425	
Household assets	0.556***	0.166	1.096**	0.405	
Interest sensitivity	-0.073	0.171	-0.181	0.431	
Negative perception	-0.247	0.183	-0.434	0.444	
Ownership structure	-0.488	0.419	0.978	1.049	
Registration	0.147	0.166	0.351	0.409	
Rural location	0.231	0.205	0.974**	0.504	
Skill training	-0.221	0.165	-0.333	0.404	
Suburb location	0.070	0.200	0.762	0.499	
Constant	0.628	1.074	-3.916	2.677	
Cox and Snell (R ²)		0.232		0.204	
-2 log likelihood				164.895	
Percentage correct				80	
Durbin Watson		1.91			
No. of observation		157		157	

Note: Significant at: *10, **5, and ***1 percent levels

and future financing preference models. We found that new enterprises were more likely to prefer either internal or less costly and less risky financing such as bootstrap or informal financing such as supplier's credit or SUSU schemes. However, as the enterprise gets established or matures its capacity to seek formal financing increases and thus were more likely to prefer or being in a higher category of formal financing.

While this finding seems consistent with the POH as MSEs' financing choice had revealed to follow a hierarchical preference ordering – rising from internal, bootstrap, informal, semi-formal to formal finance – we argue that this order is a consequence of severe persistent constraints other than own preferences. This is because the study found other microentrepreneur's and MSE's specific level socio-economic characteristics such as owner's education or financial literacy status, households tangible assets, ownership structure, enterprise size as well sensitivity to high interest rates in the credit market to be important determinants of either past (start-up), present or future financing preference.

The conclusion drawn from this paper is that financing preference at all stages of the MSE's life were severely constrained. Thus, policy choice should not only be at supporting further growth in established and mature enterprises, but also removing constraints that start-up and newly established firms face in accessing finance particularly from mainstream formal finance. The access to finance problem that is more binding on the latter firms should be improved by creating an integrated rural financial system that is more responsive to the varying financing needs of MSEs at all stages. This will mean that future studies should focus on the relationship between the various financing preferences, as well as strategies for creating linkage either directly or otherwise, between the continuums of financing choices ranging from formal to the bootstrap finances.

Note

1. Poverty in Ghana has remained a disproportionately rural phenomenon up until now. About 86 percent of the total population below the poverty line in Ghana lives in the rural area.

References

- Aaron (2005), "Multinomial and ordered logit", available at: www.uoregon.edu/~aarong/teaching/G4075_Outline/node24.html
- Abor, J. (2008), "Determinants of the capital structure of Ghanaian firms", Research Papers RP_176, African Economic Research Consortium, Nairobi.
- Abor, J. and Biekpe, N. (2009), "How do we explain the capital structure of SMEs in sub-Saharan Africa?", *Evidence from Ghana. Journal of Economic Studies*, Vol. 36 No. 1, pp. 83-97.
- Alabi, G., Alabi, J. and Tei, A.S. (2007), "The role of 'susu' a traditional informal banking system in the development of micro and small scale enterprises (MSEs) in Ghana", *International Business & Economics Research Journal*, Vol. 6 No. 12, pp. 99-116.
- Aryeetey, E. and Udry, C. (1997), "The characteristics of informal financial markets in sub-Saharan Africa", *Journal of African Economies*, Vol. 6, pp. 161-203.
- Barclays Press Release (2005), "Barclays Bank of Ghana limited launches microbanking", available at: www.newsroom.barclays.co.uk/asp?404 (19 December).
- Carling, K. and Lundberg, S. (2005), "Asymmetric information and distance: an empirical assessment of geographical credit rationing", *Journal of Economics and Business*, Vol. 57 No. 1, pp. 39-59.
- Clark, G. (1994), *Onions Are My Husband, Survival and Accumulation by West African Market Women*, University of Chicago Press, Chicago, IL.
- Cressy, R. (1990), "Commitment lending under asymmetric information: theory and tests on UK startup data", *Small Business Economics*, Vol. 8, pp. 397-408.
- Diamond, D.W. (1989), "Reputation acquisition in debt markets", *Journal of Political Economy*, Vol. 97, pp. 828-62.
- Gebru, G.H. (2009), "Financing preferences of micro and small enterprise owners in Tigray: does POH hold?", *Journal of Small Business Enterprise Development*, Vol. 16 No. 2, pp. 322-34.
- Green, J.C., Kimuyu, P., Manos, R. and Murinde, V. (2002), "How do small firms in developing countries raise capital? Evidence from a large-scale survey of Kenyan micro and small scale enterprises", Economic Research Paper No. 02/6 Centre for International, Financial and Economics Research, Loughborough University, Loughborough.
- Greene, W.H. (Ed.) (2008), *Econometric Analysis*, Pearson/Prentice-Hall, Upper Saddle River, NJ.
- GSS (2008), *Ghana Living Standard Survey (GLSS 5) Report*, Ghana Statistical Service, Accra.
- Hamilton, R.T. and Fox, M.A. (1998), "The financing preferences of small firm owners", *International Journal of Entrepreneurial Behaviour & Research*, Vol. 4 No. 3, pp. 239-48.
- Hussain, J. and Matlay, H. (2007), "Financing preferences of ethnic minority owner/managers in UK", *Journal of Small Business and Enterprise Development*, Vol. 13 No. 4, pp. 584-99.
- Jaramillo, F. and Schiantarelli, F. (2002), "Access to long term debt and effects on firms' performance: lessons from Ecuador", *Latin American Economic Policies Newsletter*, Network Working Paper No. R-460, July, available at: www.iadb.org/res
- Kimuyu, P. and Omiti, J. (2000), "Institutional impediments to access to credit by micro and small scale enterprises in Kenya", Institute of Policy Analysis and Research Discussion Paper No. DP/026, Nairobi.

-
- Kraus, A. and Litzenberger, R.H. (1973), "A state-preference model of optimal financial leverage", *Journal of Finance*, Vol. 25, pp. 911-22.
- Lean, J. and Tucker, J. (2001), "Information asymmetry, small firm finance and the role of Government", *Journal of Finance and Management in Public Services*, p. 1.
- Mensah, S. (2004), "A review of SME financing schemes in Ghana", paper presented at the UNIDO Regional Workshop of Financing Small and Medium Scale Enterprises, Accra, 15-16 March.
- Modigliani, F. and Miller, M.H. (1958), "Cost of capital, corporation finance, and the theory of investment", *American Economic Review*, Vol. 48, pp. 261-97.
- Murray, F.Z. and Goyal, V.K. (2003), "Testing the pecking order theory of capital structure", EFA 0157: AFA 2001, New Orleans, LA, available at: <http://ssrn.com/abstract=243138>
- Myers, S.C. and Majluf, N.S. (1984), "Corporate financing and investment decisions when firms have information that investors do not have", *Journal of Financial Economics*, Vol. 13, pp. 187-221.
- Neeley, L. (2009), "Entrepreneurs and bootstrap finance", doc88, available at: www.doc88.com/p-94950626823.html
- Nissanke, M. (2001), "Financing enterprise development in Sub-Saharan Africa", *Cambridge Journal of Economics*, Vol. 25, pp. 243-367.
- Nissanke, M. and Aryeetey, E. (Eds) (1998), *Financial Integration and Development in Sub-Saharan Africa*, Routledge, London.
- Paul, S., Whittam, G. and Wyper, J. (2007), "The pecking order hypothesis: does it apply to startup firms?", *Journal of Small Business and Enterprise Development*, Vol. 14 No. 1, pp. 8-21.
- Selvavinayagam, K. (1995), "Improving rural finance market for developing microenterprises", Occasional Paper Series No. 2, FAO Investment Centre, June.
- (The) World Bank (2008), *Finance for All? Policies and Pitfalls in Expanding Access*, World Bank Group, Washington, DC.
- Wu, F. and Guan, Z. (2008), "Farm capital structure choice under credit constraint: theory and application", paper presented at the American Agricultural Economics Association Annual Meeting, Orlando, FL, 27-29 July.
- Wyer, P., Ekanem, I., North, D. and Deakins, D. (2007), "Literature review for the small business service: the impact of perceived access to finance difficulties on the demand for external finance: final report", Centre for Enterprise and Economic Development Research, Middlesex University, London, available at: www.berr.gov.uk/files/file40922.pdf

Further reading

- Bank of Ghana (2007), "A note on microfinance in Ghana", Working Paper WP/BOG-2007/01.
- Bank of Ghana (2008), *Quarterly Economic Bulletins for 2008*, Bank of Ghana Publication, Accra.
- Kyereboah-Coleman, A. and Osei, A.K. (2008), "Outreach and profitability of microfinance institutions: the role of governance", *Journal of Economic Studies*, Vol. 35 No. 3, pp. 236-48.
- Myers, S.C. (1984), "The capital structure puzzle", *The Journal of Finance*, Vol. 39 No. 3, pp. 575-92.

Corresponding author

Eric Osei-Assibey can be contacted at: oassibey@yahoo.com

To purchase reprints of this article please e-mail: reprints@emeraldinsight.com
Or visit our web site for further details: www.emeraldinsight.com/reprints

This article has been cited by:

1. Patrick Ojera. Indigenous Financial Management Practices in Africa: A Guide for Educators and Practitioners 71-96. [[Abstract](#)] [[Full Text](#)] [[PDF](#)] [[PDF](#)]
2. MandHarvinder Singh, Harvinder Singh Mand, AtriMeenakshi, Meenakshi Atri, GillAmarjit, Amarjit Gill, AmiraslanyAfshin, Afshin Amiraslany. 2018. The impact of bank financing and internal financing sources on women's motivation for e-entrepreneurship. *International Journal of Gender and Entrepreneurship* 10:2, 102-115. [[Abstract](#)] [[Full Text](#)] [[PDF](#)]
3. Atsede Woldie, Bushige Mwangaza Laurence, Brychan Thomas. 2018. Challenges of finance accessibility by SMEs in the democratic republic of Congo: is gender a constraint?. *Investment Management and Financial Innovations* 15:2, 40-50. [[Crossref](#)]
4. Abiodun Anthony Eniola. Entrepreneur-SME Manager Traits and Sources of Financing 223-259. [[Crossref](#)]
5. Shasha Zhu, Xiaoqin Song, Ye Cao. Based on Multi-objective Fuzzy Decision Model to Study Tech Micro Enterprise Financing Credit Risk Evaluation System 156-159. [[Crossref](#)]
6. Eric Osei-Assibey. 2015. What drives behavioral intention of mobile money adoption? The case of ancient susu saving operations in Ghana. *International Journal of Social Economics* 42:11, 962-979. [[Abstract](#)] [[Full Text](#)] [[PDF](#)]
7. Eric Osei-Assibey, Joseph Kwadwo Asenso. 2015. Regulatory capital and its effect on credit growth, non-performing loans and bank efficiency. *Journal of Financial Economic Policy* 7:4, 401-420. [[Abstract](#)] [[Full Text](#)] [[PDF](#)]
8. Eric Osei-Assibey. 2013. Source of finance and small enterprise's productivity growth in Ghana. *African Journal of Economic and Management Studies* 4:3, 372-386. [[Crossref](#)]
9. Zangina Isshaq, Godfred A. Bokpin. 2012. Expansion and Efficiency in Banking: Evidence from Ghana. *Managerial and Decision Economics* 33:1, 19-28. [[Crossref](#)]