Networks and credit characteristics of small scale women business operators in the Mfanstiman district of Ghana

James Atta Peprah
Department of Economics University of Cape Coast Cape Coast, Ghana.

ABSTRACT

The objective of this paper is to explore the role networking play in making small scale business activities more sustainable. Using a sample of 320 women small scale business operators from the Mfantsiman district of Ghana, the study adopts the multinomial logit as well as ordinary least square (OLS) estimation techniques to determine the effects of number of network on start-up capital and credit amount. The central focus of the paper is to discuss the role of networking in making women more innovative in sourcing for start-up and top-up capital for business activities. The paper establishes that belonging to more than three networks significantly reduces the quantum of credit that women business operators can access thus it is one network that significantly determines credit size for business expansion but at the start –up stage, more networks is vital in sourcing for start-up capital from other sources. The paper recommends that networking should be used by women not only at the start-up stage but also the later stages when financing needs becomes more crucial for business expansion, it is important for women to stay with an established network. Besides networking, the paper offers recommendations on 'flexible' repayment schedule as a way of increasing credit duration for greater access to loans. The paper offers policy recommendations to assist in building stronger entrepreneurial network in order to ensure sustainable entrepreneurship.

Introduction

What determine or create entrepreneurship have long been researched into globally (Sri, Shariff & Saud, 2011; Rauch & Watson, 2005). In recent times, it is not what determines entrepreneurship that matter but more importantly what makes a successful entrepreneur. In this regard sustainable entrepreneurship demands that entrepreneurs use networking as a means of building social capital. Hatala (2007) has recognized the need and the ability to access social capital as an important component to upward mobility, both personally and professionally.

Whether it is for the purpose of finding a job, starting a business or seeking a promotion, accessing network resources represents the needed advantage to achieving success through networking. Networking may be conducted in different contexts as in job, social life, religious, political set ups as well as many in life situations. In enterprise, networking is studied excessively for the role of supporting the entrepreneurial success (Lechner, Dowling & Welpe, 2005). The authors argue that maintaining networking is strongly needed to develop enterprises. Besides learning, the entrepreneurs should also be able to open or have internal networking within their enterprises or external networking with other parties.

Networking with others is carried out because the entrepreneurs mostly depend on the information, raw materials, technology or knowledge, in order to make their enterprises continuously develop and be acceptable to societies. Numerous research done found that networking provided many benefits and encourages success of an enterprise. Hite & Hesterly (2001) in their research found that networking increases profit from investment and access to growth, particularly for new founded companies and made dynamic relationship to these companies.

Hatala 92007) argue that it is not just networking per se that matters but the individual's position within the network. The implication is that an individual's social position within a network may help to determine the utility of the network itself. What happens when a person's position within a network is not favourable? It is inferred from the latter that is a person's position in a network is not strong; even though the network will be there it cannot be used effectively and efficiently to achieve desired results. The utilization of network resources thus will affect the start-up of growth and latter stages of enterprises. Network position describes the pattern of interaction between firms clustered in a particular community, district or region. The degree to which an individual actor is connected to others in a network is called centrality (Borgatti et al., 2002). Centrality is used to obtain the positional features of an individual firm within networks. An individual firm's centrality captures the extent of its access to knowledge.

The importance of networks in society cannot be overemphasized as a result of its role in developing the private sector in contributing to gross domestic product (GDP), employment creation, and raising income levels through its spill-over effects. An entrepreneur's network position reveals its ability to access external information and knowledge. This knowledge is transformed into production of new products and improving upon existing ones. By occupying a central position in the network, a firm is likely to access desired strategic resources including finance, knowledge and skills. Such resources will again fuel the enterprise's production activities by

Tele:
E-mail addresses: peprahjames@rocketmail.com

providing the external information necessary to generate new ideas. These relations may also extend across professional networks, reaching friends, and colleagues from earlier jobs. Entrepreneurial networks span relations to organizations, clusters of firms, as well as to other people that help them set up the firm. For these reasons, it is important for entrepreneurs to locate themselves in a central position in order to gain access to information benefits from their network linkages.

In Ghana there seem to be lack of such networking and innovativeness among especially women entrepreneurs particularly those in the rural districts. As a result of this most businesses established today are likely to have low survival rates in the future. There also seem to be lack of connections among these businesses thus hampering the linkage effects which could have promoted the use of inputs and output, marketing and promotion. In the literature of the Ghanaian entrepreneurship much seem not have been discussed with regards to networking and innovations and how they contribute to sustainable entrepreneurship.

The thrust of this current paper is to analyze the extent to which networking contribute to sustainable entrepreneurship. In this regard the paper answers three key research questions: (1) what characteristics do women entrepreneurs possess? (2) How does the number of networking influence source of start-up capital? (3) Does networking influence access to credit for business expansion? In answering these questions we also focus on and explore the factors that contribute to the sustainable entrepreneurship in Ghana. As a contribution, the paper sets a new inroad into what makes a successful entrepreneur instead of what makes an entrepreneur. Furthermore, the paper contributes to the inadequate literature on the subject matter in the Ghanaian context as far as entrepreneurship is concerned. The rest of paper is organized as follows: review of related studies is considered in section two, section three looks at the study area and the study methods, section four presents findings; discussion of the results is presented in section five and section six concludes.

Literature

Previous studies have identified entrepreneurial factors that contribute to the success of entrepreneurs. For example, Say (1971) proposes that a successful entrepreneur must possess outstanding qualities, especially in decision making, while McClelland (1961) suggests that an entrepreneur should feel a need for achievement. Other outstanding qualities include an internal locus of control (Rotter, 1966), self-confidence, independence (Hisrich and Gracher, 1995) and innovativeness as well as good communication and decision-making skills (Cox and Jennings, 1995). An entrepreneur also must be able to face any possibilities effectively during the formation of a new venture. This means that entrepreneur is a risk taker (Cox and Jennings, 1995). Risk taking is an important factor in developing strong entrepreneurial personality, which is useful for business activities (Wadhaw et al., 1998). Other characteristics of successful entrepreneurs include high self-efficacy, opportunity recognition, perseverance and social skills (Markman and Baron, 2003). In the face of global financial meltdown the ability to network contribute to finance acquisition. In view of the latter, entrepreneurs with smaller enterprises who tend to maintain solidarity networks that are small, homogeneous, cohesive and best suited to reducing information asymmetries and thus supporting informal credit and risk-sharing arrangements.

One important theory that underpins networking is the social network theory. According Kadushin, (2004) social network theory is a social science concept that discusses the connection and relationship in a social structure. The theory attempts to find something that might connect people in their group or communities. According to Brass (1992), a social network is a generic way and set of nodes or actors that are connected by a set of social relationships, ties, or a specified type of ties. The term "network" is generally used for the structure of ties among the actors in a social system (Nohria and Eccles, 1992). These actors could be roles, individual persons, organizations, industries, or even nation states. Their ties may be based on conversation, affection, friendship, kinship, authority, economic exchange, information exchange, or anything else that forms the basis of a relationship. In a network, flows between objects and actors and exchanges, which might contain an advice, information, friendship, career or emotional support, motivation, and cooperation, can lead to very important ties (Kadushin, 2004).

In all environments, entrepreneurs must build reputation-enhancing relationships with outside resource providers who are willing to share valuable information, technology, and finance. In this regard entrepreneurs use their own informal business and personal networks to establish new firms and the extent of the network determines the success of many entrepreneurs. For example, social network contacts are the most needed by new and small businesses to overcome their difficulties in getting suppliers and customers at the early stage of business formation. Network relationship refers to a strategy that focuses on creating and maintaining a lasting relationship between entrepreneurs and their network (Premaratne, 2002).

Networks could be religious, political, financial, technical or business. Religious networks are found in religious organizations to bring people together. The main objective of religious networks is to ensure that church religious group members come together to achieve a particular religious objectives. Dana (2007) observes that religious networks ensure that members basically focus on religion and family work. In some Islamic communities, women for example are not permitted to establish their own businesses.

The size of network indicates the number of different people an entrepreneur is communicating to during the business establishment process and even after the business has been established. A higher number of people in one's contact means receiving diversified information and increases the chances of receiving and using useful information for the growth of the business. Therefore the size of network may be one of the most important factors explaining successful establishment new businesses. The size of the network indicates entrepreneur is t

The theory of economic development as proposed by Joseph Schumpeter indicates that, for development to occur there have to be new innovations. These innovations produce supernormal profits in the economic sense for further investment. Once the new innovation becomes successful and profitable, other entrepreneurs follow it. Since investment is assumed to be financed by creation of bank credit, it increases money incomes and prices to help to create a cumulative expansion throughout the economy. The relevance of Schumpeter's model of "breaking the circular flow" lies on the reliance of bank credit to finance investments, however, the problem most entrepreneurs face is inadequate finance (Siringi, 2011). This notwithstanding however a dynamic entrepreneur does not see lack of access to credit from financial institution as a barrier in developing the entrepreneurial talents in them.

The early development of capitalism in economics deepens our understanding of typical entrepreneurs. Capitalism depends on harnessing private motives to produce the goods and services that the public wants as efficiently as possible. In the capitalist world entrepreneurs are considered as change agents who bring new concepts into active commercial use. The early capitalists believed that innovation and creativeness distinguished entrepreneurs from other business people. They observed that innovation and entrepreneurship are closely interwoven. They argued that the entrepreneur was at the very center of all business activity and they create "clusters of innovations" that are the causes of business cycles because their actions create disruptive dislocations and arrive in huge waves. In the capitalist world entrepreneurs also exploit in novel ways what has already been invented and seek opportunities including networking to take advantage in the market. In this direction five types of entrepreneurial activities could be identified namely: new product innovation or the introduction of a new service, new process innovation or new methods of production, market innovation or opening of new markets, input or resources innovation, and organizational innovation, which is the complete restructuring of an entire industry or the breaking up of a monopoly. The ability to seize market opportunities displays a strong entrepreneurial character. The entrepreneur also plays the role of driving the market forces. In this regard the ability to network is very fundamental.

Wood (2005) has observed that the market is a process of creation, discovery, competition, and adjustment. According to him, the market is not merely a "dynamic entrepreneurial-competitive discovery process", in which "what is out there" is first "discovered" by the alert entrepreneur after having been missed by previous others who failed to see it. Rather, the smart entrepreneur first creates that which will be discovered, and chooses from the multiple alternative not-yet-existing possibilities the one which he will pursue: the one-among-many-alternatives which are both the best attainable and the one most likely to succeed in the world which presently exists, here too ability to network is also crucial.

In the context of innovation, the entrepreneur must be engaging in the production by exploiting an untried technological possibility for producing a new commodity or producing an old one in a new way, by opening up a new source of supply of materials or a new outlet for products, by reorganizing an industry. Thus, we identify the attributes of innovation as the business activity that brings about a new production function as a result of one or more of the following five economic activities namely introduction of a new good, adoption of new inputs to produce a new good or the previously produced good, introduction of new technology, opening of a new market; and creating a new economic organization. Of course without innovation, one cannot be called entrepreneur in this context. Innovation is underpinned by active networking and networks further create more innovations.

A more recent work on entrepreneurship and networking sees networking as very important for successful entrepreneurial ventures. Setyawati, Shariff & Saud (2011) studied what makes successful entrepreneurs in Indonesia; they observed that networking is an important factor for developing a successful entrepreneurship. In another study by Lechner, Dowling & Welpe, (2005) networking is strongly needed to develop entrepreneurial capabilities since networking enhances learning. Besides learning, the entrepreneurs should also be able to open or to have internal networking within their enterprises or external networking with other parties including individuals and existing firms. They argue that networking with others is carried out because the entrepreneur mostly depends on the information, raw materials, technology or knowledge, in order to make their enterprises continuously develop and be acceptable to societies.

What drives entrepreneurship? Why do entrepreneurs emerge? The Global Entrepreneurship Monitoring (GEM) report 2010 proposes two important theories underlying the emergence of entrepreneurs globally. First, entrepreneurs emerge as a result of necessity-driven. Necessity-driven entrepreneurs emerge because they have no other option for work. These groups of people just become entrepreneurs in order to earn a living. Necessity driven entrepreneurs start new businesses due to the unfavorable circumstances they find themselves in. It is very difficult for such business owners to become successful entrepreneurs because they lack the entrepreneurial spirit. As a necessity business owner, the objective is to make ends meet. Second, there are the improvement-driven entrepreneurs who seek opportunity to become entrepreneurs as opposed to finding no other option for work. This group of entrepreneurs search for the opportunity to become independent and or increase their income than just maintaining their income. These are the category of entrepreneurs who are to make proper networking.

Another aspect of entrepreneurs in the advanced countries as reported by GEM (2010) report is entrepreneurs who expect to employ at least 20 employees five years from when the business was started. A weak measure of entrepreneurial ability is those who expect at least five employees five years from the time their business was established. The limitation of the GEM research is that less attention is given to networking a factor which determines the success of entrepreneurs.

Besides networking, the literature documents the effect of flexible loan schedule as an important factor that influences greater access to loan amount by micro-entrepreneurs. A model of flexible payment has been introduced by Grameen II and some microfinance organizations in Bangladesh offer various types of specialized, more flexible microcredit services (Al-Mamun, Wahab, Malarvizhi & Mariapun, 2011). Designing a flexible microcredit program with flexible repayment system can attract more potential clients, reduce dropouts, enable existing clients to receive more credit and retain clients for a longer period of time. Moreover, flexible microcredit services will enable clients to receive higher amount of loan and therefore increase the household's income and reduce repayment problem. The present study seeks to unravel influence of networks in accessing start-up capital and further credit.

Women in small scale business in Ghana

In Ghana more than 50% of businesses are small scale. These businesses are owned and managed by one 'man'. The areas of operation vary from manufacturing to trading with trading dominating the entrepreneurial sector of the Ghanaian economy. Many people become business owners through inheritance from parents and relatives. Initial capital provision is a necessary condition for business start-ups in Ghana because most banks are not willing to finance new businesses thus making it difficult for a majority to become businesses owners even though such people may have the business ideas. A great number of these businesses are in the informal sector and operated by women. The nature of these businesses is micro or small scale employing less than 10 people as defined by Ghana Statistical Service. The employees are family members, relatives

of close friends or children. In most cases, these women employ less than ten persons who might be unpaid workers or working for commission. In Ghana both men and women are mostly engaged in retail businesses selling non-durable consumer goods, drinking bars, restaurants (chop bars), fuel stations, barbering shops, and many more.

Recent empirical study in Ghana on women entrepreneurs by Dzisi, Buckley, Selvarajah and Meyer (2008) reveals that Ghanaian women are engaged in seven major business sectors such as trading (26%), services (21%), agro-processing (16%), manufacturing (12%), textiles and fabrics (12%), agriculture (5%) and construction (4%). The limitation of this study is that the authors failed to look at networking that Ghanaian women belong to and how these networks determine their access to capital for start-up and business growth. It must be emphasized that networking is very important in developing entrepreneurial potentials (Sherer, 2003). Of course it is true that Ghana has ever produced successful women entrepreneurs who have made immense contribution to the economy yet these people constitute a handful. A quick scan through the Ghanaian economy shows that numerous businesses created by women were out of necessity and with 'hand to mouth' motives. In Ghana there are several institutions and networks such as Women World Bank (WWB), Aglo for Women (AW), Ministry of Women and Children Affairs (MoWAC), Abantu for Development (AD), African Women Development Fund (AWDF) and many more.

The Study area and Methodology
The study area

Mfantsiman is one of the districts in the Central region of Ghana. It is bordered on the west by Abura-Asebu Kwamankese (AAK) district; on the north-west by the Assin South (AS) district, on the east by the Gomoa district on the north-east and on the south by the Gulf of Guinea. The district covers about 612 sq km and the proportion of land area to the region is in the ratio 1:16. The district has Saltpond as the capital and a population of 152,855 constituting 9.6% of the total population in the region. The sex distribution of the district shows that 70,212 are males whereas 82,643 are females with sex ratio of 85%. The rural-urban proportion is almost 50-50 in the district. The 2000 population for example indicates that 50.2% of the population of 152, 855 dwell in the rural areas whereas 49.8% are urban dwellers. There is therefore no significant difference between rural-urban settlements in Mfantsiman district. The urban settlement has 54.0% females and 46.0% males whereas the rural settlement has 54.1% females and 45.9% males. The broad age structure shows that 0-14 years constitutes 43.5%, 15-64% has 49.5% and 65 and above takes 7%. From this it is crystal clear that the dependency ratio for the district is 102.1% which is fourth in the Central region of Ghana. Males tend to assume household headship at younger ages than males. At least 10% of male household heads in the district are between 25-49 years. The concentration of male household heads is in the age range 25-49 years, while that for females is 40-54years.

Farming is major economic activity in the district but is engaged by majority of men. In addition to farming most men in the district engage in fishing because of the location advantage of the district for fishing. As part of livelihood activity, a few women engage in fish processing basically on small scale. Trading activities is very common in the district. More than 50% of the women aged 18years and more engage in trading (buying and selling of wares and food stuff). Women who engage in farming sell their own farm produce whereas others buy and sell

foodstuffs. The position of major towns in the district including Yamoransa, Mankessim, Anomabo, and Essuehyia promotes trading. In this regard majority of women respondents in this study were women traders. Hairdressing and seam-stressing are other important economic activities women engage in the district.

Data source and type

The current study used a dataset of the 320 women small scale business operators from the Mfanstiman district in the Central region, Ghana. The survey instruments used for the data collection contained information about women clients and non-clients. Clients constitute women who have taken loans during the past 12 month whiles non-clients constitute women who are eligible but have not taken any credit over the past 12 months. The data was collected in May-June 2010 by well trained research assistants from the Department of Economics, University of Cape Coast, Ghana. Before the actual data for the study was collected, a pilot study was conducted to validate the instruments. A follow-up was made in February 2011 to find out more information on the reasons why a section of these women set up their own businesses.

Population and Sample

The study covered women aged 20 and above who operate small scale businesses in the selected locations. The communities selected for the study included Yamoransa, Biriwa, Anomabo, Saltpond and Mankessim. Women entrepreneurs were randomly selected from a sub-population of 500 that was randomly created using the Ghana Statistical Service Enumeration Areas (EAs). In the study area the number of women small scale business operators could not be easily determined since there are not records on them. Organized semi-formal groups were contacted to identify the sub-population because majority of these enterprises are not registered with any formal organization. Financial institutions were also contacted but were not. It is however estimated that there are more than 1000 women micro enterprises in the district. The study sampled 500 (sub-population) women entrepreneurs out of which 200 clients and 120 non-clients were selected randomly. Clients constitute those who have applied for micro-credit over the past 12 months. Non-clients constitute women who are eligible but have not applied for credit from selected MFIs in the study area. Table 1 shows the economic activity of sampled women entrepreneurs in Ghana. A pilot study was conducted on 50 women entrepreneurs in two communities in the district that did not fall within the study area. Care was taken to ensure that pre-tested respondents had similar characteristics as women in the study communities.

One major characteristic about women entrepreneurs in Ghana is that they engage in trading (78.4%) more than any other economic activity. They buy and sell consumable item including food and clothes. A number of them also engage in services including dressmaking and hairdressing. A few of them engage in farming and fishing. The study did not capture hawkers or street vendors because this category of women are not stationery and cannot be traced for the second year data collection.

Analytical methods

The study used the multinomial logit (ML) and ordinary least square (OLS) estimation techniques. Multinomial logit models are used to model relationships between a polytomous response variable and a set of regressors. The term "multinomial logit model" includes, in a broad sense, a variety of models.

Multinomial logit models are generalization of logit models for binary responses and fitting the generalized logit model requires simultaneously satisfying the J-1 equations that specify the model. The multinomial logit model is defined as:

$$log\left(\frac{\pi_{ij}}{\pi_{ii}}\right) = X_i\beta_j \; for \; j = 2, i = 1 \dots N \qquad 1$$

Where π_{ij} is $P(Y - j \,|\, X$ and $\pi_{ij} \; i \; P(Y - j \,|\, X$ 2

Where Y_i = 1= MFI
               2= Self
               3= Family/Friend
               4= Money lender
               5= other sources (include susu operators, ROSCAs, savings groups, church groups)

The probabilities or the likelihood of accessing start-up capital from any of the sources are obtained by:

$$\pi_{ij} = \frac{\exp X_i\beta j}{\sum_{j=1}^{j} \exp(Xi\beta j)}$$

The descriptive approach was used to analyze the characteristics of women small scale business operators sampled from the district. Theoretically it is assumed that demand for credit is a linear function of client characteristics and firm level characteristics. Following the traditional theory of demand, it is theorized that:

                                                 3

$$Credit = f(HH, ENT)$$

Where HH is specific household characteristics and ENT is enterprise characteristics. Empirically, credit amount was estimated using equation (2) to determine the factors that influence clients' access to amount of credit:

$$CredAmt = \beta_0 + \beta_1 SchEntpr + \beta_2 Nwk + \beta_3 OwnsavEntpr + \beta_4 Loc + \beta_5 Creddur + \beta_6 AgeEntpr + \beta_7 Freqsav + \mu$$

                                                      4

Where:
CreAmt= total credit for the past 12 months
SchEntpr=level of education of clients
Nwk=number of network clients belong to
OwnsavEntpr=whether women own saving account or not (1,0)
Loc=location of clients' business
Creddur=duration of loan or repayment period in months
Heteroscadasticity and robustness check

The data was tested for the presence of heteroscadasticity by hypothesizing H_0: constant variance for the fitted values of credit amount. Presence of heteroscadasticity was observed since p>0.000 hence we reject the null hypothesis that the variances are constant. This is corrected by taking the robust estimates as reported on table 6. In the multinomial logit equation, other variables such as age of clients and location of clients' businesses were seriously correlated with networking indicating presence of endogeneity. To correct this the age of clients and location of clients' businesses were used as instrumental variables to correct for the endogeneity problem using the two-stage least square estimation procedure. Statistically, IV methods allow consistent estimation when the explanatory variables (covariates) are correlated with the error terms.

Results
Characteristics of female entrepreneurs
Education and marital status

In this section a few demographic data about women entrepreneurs are discussed. Majority (63.8%) of women

entrepreneurs in the district are married this is consistent with Sangeeta & Meenu (2011). Never married (33.5%) women seem to be very entrepreneurial probably because most of these women are getting prepared to marry. In Ghana most men will like to marry women who have jobs or are self employed. Owning a business is assumed makes a woman a potential wife. Widows, divorced and separated women are unable to set up their own businesses for obvious reasons.

Women with primary and secondary education are more often likely to start business in the district (table 2) as compared to those with no education (2.7%), non-standard education (3.3%) and higher education (7.5%). It could be inferred from this analysis that education is relevant for starting up a business among women.

Employment

Globally entrepreneurs establish businesses to provide job for themselves and other people usually close relatives. This is one way entrepreneurship contributes to economic growth and development. Table 2 presents the number of women business operators that employ paid and unpaid workers in the district.

Only 48 (15%) women business operators employ and pay workers. Majority of women (51.6%) employ workers but do not pay them. In all categories of employees females are more than males. On the average each of these women employs two persons (whether paid or unpaid). Probably these women have large number of unpaid workers because the businesses are basically run on family basis, very small scale, or do not earn enough profit sufficient of paying workers. Another plausible reason is that lack of innovativeness is hampering the businesses to be operated on a larger scale which will merit an increase in employment.

Networking

Result of the study shows that women business operators in the Mfantsiman district belong to at least one of the four networks identified as religious, occupational, political or ethnic. Entrepreneurship requires information resources to start a business. While they hold some of these resources themselves, they often complement their resources by making other contacts. These contacts create social capital which serves as a necessary and sufficient condition for successful entrepreneurship. As network is deepened, one comes in contact with a number of people to discuss business ideas (Renzulli, Aldrich & Moody, 2000). Network enhances access to capital for setting up businesses and also for business top-up capital. Results of the study also show that the network operations of women small scale business operators are weak. More women belong to religious networks which might enhance access to credit as compared with occupational network. For example Austin et al (2006) highlight the role of networking for social entrepreneurs especially for mobilizing resources; the reason for this is claimed to be that a social entrepreneur must rely on a robust network of contacts that will provide him or her with more easy access to funds.

Loan cycle and credit amount

The study reveals that multiple clients receive lower loan amounts continuously as they apply for successive loans in subsequent periods. Table 3 shows the distribution of three cycle loans received by women clients for the past 12 months.

The number of clients decreases with further loan cycles. Less than 50% of first cycle clients receive second cycle loans and less than 50% of second cycle clients receive third cycle loans. It is clear that for all loan cycles, majority of clients

receive less than US\$ 1000 (1,400 Ghana cedis) which is lower than MSME loans obtained from MFIs and MSME financial institutions in sub-Saharan Africa according to International Finance Corporation (IFC) .

Start-up capital and networking

One important characteristic of entrepreneurs is their ability to source for start-up capital. In practice most financial institutions including MFIs are prepared to finance new businesses. It is therefore onerous on the entrepreneur to look for the initial capital financing.

The estimation results (table 5) show that belonging to just one network is significant in accessing start-up capital. At 1% level of significance (z=43.98) and controlling for self financing, one network significantly influences the likelihood of obtaining start-up capital from a typical MFI. With regards to start-up capital from traditional commercial banks, three or more networks significantly reduce likelihood of access at 1% (z= -12.89 and -11.49). Three or four networks significantly increase the likelihood of obtaining start-up capital from family and friends all at 1%. It is interesting to observe that sourcing for start-up capital from other sources (money lenders and 'susu' operators) requires a lot of network meaning all number of networks are significant in determining start-up capital at 1% level of significance. For example the money lender must know you very well or someone must introduce you to him before obtaining a loan from him . Again, to secure start-up capital from other sources, location of the business is significant (1% level, z= 2.96) and likely of likely to influence access and ownership of land by the household significantly (1%, z=14.04) influences the likelihood of getting start-up credit from other sources.

Networking and loan amount

In the latter stages of business growth, business operators require additional credit. The source of this credit may be formal, semi-formal or informal. Formal sources include credit from traditional commercial banks. In Ghana semi-formal credit can be obtained from credit unions (CUs) and financial non-governmental organizations (FNGOs). Informal credit sources also include among others include money lenders, ROSCAs, church groups and families and friends.

Credit in the OLS model refers to total credit received for the past 12 months. Results (table7) show that belonging to one network is very significant (z=1.68 ,   p> 0.092). This is consistent with the earlier results in the preceding section. The implication being that not only is one network relevant for start-up capital but also for subsequent loans. Credit duration, 'Creddur' significantly determines quantum of credit one would apply for. Clients were asked the repayment period for loans contracted in the last 12 months. The responses ranged 1-36 months.

Majority of clients (72.6%) preferred repayment duration of 6-12 months (table 8). Religious network is also very popular among women clients. The longer the duration, the more flexible loan contract becomes and enhances repayment. One reason why most clients default is that repayment starts even before projects begin to yield results. Again for shorter repayment schedules, clients are likely to use revenues to service loans leaving very little funds to operate thus affecting payment of last installments. Longer repayment schedule is an aspect of 'flexible loans' terms which work well for low income households. Controlling for two networks, and at 10% level of significance, belonging to one network significantly (t=1.68, p>0.092) determines the amount

of credit that a client receives form an institution. Belonging to three or four networks do not significantly determine the amount of credit but rather reduces the amount of credit one receives. Recalling Munshi (2010), networks will strengthen over time and more steeply in communities with weak outside options. In connection with Munshi's finding it is expected that in subsequent years and as business grows, network strengthens and it is assumed that clients' network will become stronger and stronger and will enhance access to credit amount. Frequency of savings, location of business, age of the entrepreneur, schooling of the entrepreneur as well as ownership of household savings do not significantly influence credit amount.

Discussion of Results

Empirical evidence has shown that during the start-up phase of an enterprise, women need just one network to source for funds to start their businesses. The implication is that assuming each woman belongs to at least one network or the other (using two networks as a base) three or more networks will reduce the likelihood of accessing start-up capital. The result confirms Minniti (2010) that both male and female entrepreneurs rely on role models and social networks for information and access to resources and that a strong positive and significant correlation exist between knowledge of another entrepreneur and a person's involvement with starting a new business. In another study by Sangeeta & Meenu, (2011) on microfinance and women empowerment in India, they concluded that women find an ease in getting finance from their personal contacts thus confirming the role of networking. This notwithstanding, MFIs have become very cautious about multiple borrowing thus one is made to believe that belonging to more than one network might lead to taking multiple loans. Whiles MFIs are very cautious about this, traditional commercial banks are not because in Ghana the use of credit referencing bureaus is rare. Thus, clients can even take multiple loans in situations where the banks themselves are poaching clients. Since MFIs are very close to clients, they ensure that clients they serve belong to just one group thus limiting their multiple borrowing. Collateralized loan is still an issue in micro-lending especially when clients source for credit other than MFIs, traditional commercial banks and family and friends. A typical example of 'tier three' financial service provider is the money lender who always demands valuable property before granting loans. It is in this regard that land enters the credit amount model with positive sign and also significant. Again, a typical money lender will only lend to clients who are in the same locality where he lives. Flexible loan repayment schedule as a way of increasing duration raises one or two questions. Pearlman (2010) for example believes it is unclear if lenders can introduce a form of cost effective, contingent repayment that meets borrowers" needs as well as their own. Mullainathan & Krishnan (2008) offer a solution which my lie in "flexible inflexibility" which grants small 'grace' periods, giving borrowers some breathing space while maintaining a fairly rigid repayment structure.

The question is which network is enhances start-up capital among women? The study was unable to establish this because of the way the data was coded. In the mist of financial meltdown, it is the networked entrepreneurs who can source for start-up capital other than self financing to start a business.

Conclusions

Drawing upon cross-sectional data survey in 2010, the thrust of the present paper was to assess the extent to which the number of networks affects start-up capital and access to

quantum of credit. It is clear that the networks are there but not being used by women entrepreneurs. There is therefore the need for the state to assist in building stronger entrepreneurial network in order to ensure sustainable entrepreneurship in Ghana. In this direction however, care must be taken in order not to politicize the use of networks. Entrepreneurial networks could be a powerful tool for women who might want to start businesses in the rural communities. Hence, development partners interested in women development need to strengthen ways of making networks very effective for the rural communities. A macro policy will thus not be beneficial to small scale business operators in general and women in particular. Access to credit must be backed by effective networking to produce more successful entrepreneurs in Ghana. Clients need to be discouraged from joining multiple networks but rather stay within a particular network in order to enhance access to credit. There is also the need for institutions to institute flexible repayment schemes to increase credit access and also minimize default. An inclusive financial strategy must therefore emphasize on just one network. The current study covered only one district in Ghana and results might not be generalized. However, the conclusions offer a basis for further study into the subject matter.

References

Al- Mamun, A, S. A. Wahab, C. A. Malarvizhi and S. Mariapun (2011), Examining the Critical Factors Affecting the Repayment of Microcredit Provided by Amanah Ikhtiar Malaysia, International Business Research Vol. 4, No. 2; April 2011

Austin, J., H. Stevenson, & J. Wie-Skillern (2006), *Social and Commercial Entrepreneurship: Same, Different, or Both?;* Entrepreneurship Theory and Practice 30(1), pp 1–22.

Boudourides, M.A (2004), A review of Networking Theories on the formation of public opinion, Electronic Journal of Communication, Vol. 13 No 3 and 4

Cox, C., & Jennings, R. (1995). The foundation of success: The development and characteristics of British entrepreneurs and intrapreneurs. *Leadership and Organizational Development Journal*, 16(7), pp. 4 - 9.

Dana, L.P. (2007), 'Humility-based Economic Development and Entrepreneurship among the Amish', *Journal of Enterprising Communities: People and Places in the Global Economy*, 1 (2), 142–54.

Dzisi, S; P. Buckley, C. Selvarajah and D. Meyer (2008), Women Entrepreneurial activities in developing economies: Ghana as a case study, AGSE.

Drucker, P. (1985), *Innovation and Entrepreneurship; Practice and Principles*. Heinemann, London 1985.

Hatala, J (2007), Assessing Social Capital Capacity: The Development of a Network Accessibility Scale, Louisiana State University

Henderson, Jason. "Building the Rural Economy with High-Growth Entrepreneurs." *FederalReserve Bank of Kansas City Economic Review*, Vol.87, No.3 (3rd Quarter 2002): pp.45-70.

Hisrich, R. D., & Gracher, M. V. (1995). The Russian entrepreneur: characteristics and prescription for success. *Journal of Managerial Psychology*, 10(2), pp.3 – 9.

Hornaday, R. W. 1992. Thinking about entrepreneurship: a fuzzy set approach. *Journal of Small Business Management*. October, Volume 30, No. 4:pp.12 - 23

Kirchhoff, B. A. (1991), Entrepreneurship's contribution to economics. *Entrepreneurship,Theory and Practice*, Vol. 16, No. 2, pp.93 - 112.

Kirzner, I. M. (1979), *Perception, Opportunity and Profit, Studies in the Theory of Entrepreneurship*. The University of Chicago Press, Chicago.

Kirzner, I (1973), Competition and Entrepreneurship. University of Chicago Press. Chicago, IL.

Kutner, Michael H., Christopher J. Nachtsheim and John Neter. 2004. Applied linear regression models. McGraw-Hill

Markman, G., & Baron, R. (2003). Person-entrepreneurship fit: why some people are more successful as entrepreneurs than others. *Human Resource Management Review*, 13(2). 281 – 301.

McClelland, D. C. (1961). *The Achieving society*, NY: D.Van Norstrand Co. Inc, 210-215.

Minniti, M (2010), Female Entrepreneurship and Economic Activity, European Journal of Development Research (2010) 22, 294–312. doi:10.1057/ejdr.2010.18

Munshi, K (2010), Strength in Numbers: Networks as a Solution to Occupational Traps, Brown University and NBER

Mullainathan, S. and S. Krishnan. (2008) "Psychology and Economics: What it Means for Microfinance." Financial Access Initiative Concept Note

Pearlman, S (2010), Flexibility Matters: Do More Rigid Loan Contracts Reduce Demand for Microfinance?, Department of Economics, Vassar College, Poughkeepsie, NY 12604, United States

Renzulli, L. A., Aldrich, H., & Moody, J. 2000. Family matters: Gender, family, and entrepreneurial outcomes. *Social Forces*, Vol.79, No.2, pp.523-546.

Rotter, J.B. (1966). Generalized Expectations For Internal Versus External Control of Reinforcement. *Psychological Monographs: General and Applied*, 80(1), 1 – 27.

Sangeeta, A. & M. Meenu, (2011), Women empowerment through microfinance intervention in the Commercial Banks: An empirical study in the rural India with special reference to the state of Punjab, International Journal of Economic Research, 2(2), 35-45

Say, J.B. (1971). A *Treatisc on Political Economy or the Production, Distribution and Consumption of Wealth*. NY: A.M. Kelley Publishers.

Sherer, S. (2003), "Critical success factors for manufacturing networks as perceived by network coordinators", *Journal of Small Business Management*, Vol. 41 No.4, pp.325-39

Schumpeter, J. A. (1943). Capitalism, Socialism and Democracy -6th. ed. Counterpoint Edition. Unwind Paperbacks, London 1987.

Lechner, C., Dowling,M., & Welpe, I. (2005), Firm networks and firm development: The role of relational mix. *Journal of Business Venturing,Vol. 20*.

Schumpeter, J. A., (1947), *Capitalism, Socialism, and Democracy*. 2nd Ed. Harper & Brothers Publishers. New York, NY

Setyawati, S.M., M. N. M. Shariff and M. B. Saud (2011), Effects of Learning, Networking and Innovation Adoption on Successful Entrepreneurs in Central Java, Indonesia, *International Journal of Business and Social Science Vol. 2 No. 5; [Special Issue -March 2011]*

Siringi, E.M (2011), Women's small and medium enterprises for poverty alleviation in Sub-Saharan Africa: Lessons from Kenya, Management Research Review, Vol. 34 No. 2, 2011. pp. 186-206

Wadhaw, R.K. et al. (1998). *Entrepreneur and Enterprise Management*, India: Karishka Publisher.

Appendices
Table 1: Economic activity of women entrepreneurs

Type of economic activity:	Trading	Value Add	Farming	Fishing	Hair Dress	Total
Sector:						
Agriculture	21	17	2	2	0	42
Industry	118	6	0	0	3	127
Services	112	9	0	0	30	151
Total	251(78.4%)	32(1%)	2(0.6%)	2(0.6%)	33(10.3%)	320

Source: Field survey, 2010

Table 2: Marital and educational status of clients

Marital status	Married	Widowed	Divorced	Separated	Never	Total
Education						
No education	2	0	3	0	3	8(2.7%)
Primary	50	2	0	1	47	100(35.6%)
Secondary	114	1	1	0	50	166(54%)
Higher	21	0	0	0	2	23(7.5%)
Non-standard	9	0	0	0	1	10(3.3%)
Total	**196(63.9%)**	**3(1%)**	**4(1.3%)**	**1(0.3%)**	**103(33.5%)**	**307**

Source: Field survey, 2010
N=307

Table 3: Paid and unpaid employees

Number of Employees	Up to 2	3-5	6-10	Total
Males				
Paid employees	15	1	0	16
Unpaid employees	36	0	0	36
Females				
Paid employees	25	4	3	32
Unpaid employees	118	7	4	129
Total	**194**	**12**	**7**	**213**

Source: Field survey, 2010

Table 4: Women entrepreneurs and Networking

Network type	Frequency	%
Religious	199	62.0
Occupational	69	21.6
Political	34	10.6
Ethnic/Tribal	18	5.6
Total	**320**	**100.0**

Source: Survey, 2010

Table 5: Loan amounts in US$

Amount (US$)	1st Cycle	2nd Cycle	3rd Cycle
Up to 500	124(70.4%)	48(57.1%)	4(30.8%)
501-1000	35(19.8%)	27(32.1%)	4(30.8%)
1001-2000	15(8.5%)	8(9.6%)	5(38.4%)
More than 2000	2(1.1%)	1(1.2%)	0
Total	**176 (100.0)**	**84(100.0)**	**13(100.0)**

Source: Field survey, 2010

Table 6: Networking and source of start-up capital
Dependent variable is source start-up capital (base outcome is self financing)

Regressors	βs	SEs	z-values	p>z-values
MFI				
Number of network (Nwk)				
One	15.01112	0.341322	43.98	0.000*
There	-0.512426	0.409665	-1.25	0.211
Four	0.1924201	0.860003	0.22	0.823
Location (Bnloc)	-0.104181	0.158362	-0.66	0.511
Land	-0.214635	0.127317	-1.69	0.092***
Traditional				
Number of network (Nwk)				
One	0.607118	1.114355	0.54	0.586
Three	-14.3365	1.112522	-12.89	0.000*
Four	-14.8794	1.294594	-11.49	0.000*
Location	-0.14058	0.213126	-0.66	0.509
Land	0.185598	0.200840	0.92	0.355
Family/Friend				
Number of network (Nwk)				
One	0.17943	0.6105842	0.29	0.769
Three	-14.7624	0.650050	-22.71	0.000*
Four	-15.0943	0.906529	-16.65	0.000*
Location(Loc)	-0.08205	0.136847	-0.60	0.549
Land	0.11188	0.113980	0.98	0.326
Other sources				
Number of network				
One	21.26355	2.086568	10.19	0.000*
Three	7.205098	1.421828	5.07	0.000*
Four	5.647322	1.528467	3.69	0.000*
Location	0.185129	0.06246	2.96	0.003*
Land	2.855636	0.20332	14.04	0.000*

*significant at 1%, **significant at 5%, ***significant at 10%
N=227

Table 7: Credit amount and networking (Dependent variable credit amount in US$)

		β	SEs	z	P>z
Freqsav		-197.4644	284.5194	-0.69	0.488
Creddur		56.50799	21.85107	2.59	0.010**
Loc		49.51873	38.16035	1.30	0.194
AgeEntpr		-.4031984	4.521562	-0.09	0.929
SchEntpr		145.9096	110.7115	1.32	0.188
OwnsavEntr		-638.447	479.1717	-1.33	0.183
Number of network					
	One	294.8062	175.1498	1.68	0.092***
	Three	-150.1892	407.131	-0.37	0.712
	Four	-240.9984	388.7124	-0.62	0.53

*significant at 1%, **significant at 5%, ***significant at 10%
 N= 89

Table 8: Loan amount and network

Network	Religious	Occupational	Ethnic	Political
Amount				
Up to 500	44	13	12	11
501-1000	**	6	1	**
1001-2000	**	**	**	**
More than 2000	**	**	**	**
Total	**44**	**19**	**13**	**11**