



## Durham E-Theses

---

### *Entrepreneurship and bank credit rationing in Ghana*

Kingsley Akuetteh, Charles

#### How to cite:

---

Kingsley Akuetteh, Charles (2009) *Entrepreneurship and bank credit rationing in Ghana*, Durham theses, Durham University. Available at Durham E-Theses Online: <http://etheses.dur.ac.uk/2244/>

#### Use policy

---

The full-text may be used and/or reproduced, and given to third parties in any format or medium, without prior permission or charge, for personal research or study, educational, or not-for-profit purposes provided that:

- a full bibliographic reference is made to the original source
- a [link](#) is made to the metadata record in Durham E-Theses
- the full-text is not changed in any way

The full-text must not be sold in any format or medium without the formal permission of the copyright holders.

Please consult the [full Durham E-Theses policy](#) for further details.

Entrepreneurship and Bank Credit Rationing in Ghana

Charles Kingsley Akuetteh

Thesis submitted in fulfilment of the degree of Doctor of Philosophy

Durham Business School  
Durham University  
Durham, United Kingdom

2009

## **Abstract**

Previous researchers have empirically investigated the existence or otherwise of credit rationing of small businesses in both developed and developing economies. Particularly lacking are the study on the evidence of credit rationing on the individual entrepreneurs as founders and/or owner-managers of these small businesses. To fill this gap, this study examines two sets of data from the entrepreneurs of small businesses and the credit managers of commercial banks in Ghana.

This study aimed at investigating the extent to which the entrepreneurs of small businesses were able to access bank credit they required for working capital and long-term investment projects. The performance and success of the entrepreneur is largely dependent on the entrepreneur's level of human and social capital. Entrepreneurs with a higher level of education, prior work experience and social networking are considered to possess a higher competitive advantage over inexperienced entrepreneurs in terms of information search, opportunity identification, exploitation and pursuance of resources including finance. This thesis contributes significantly to the development of this accession.

The overall results lend support to the argument that the habitual entrepreneur is more likely to have access to external finance at the start of a new venture compared to the novice entrepreneur. Secondly, the habitual (experienced) entrepreneurs for reasons of higher levels of human and social capital are less likely to be credit rationed compared to the novice (inexperienced) entrepreneurs. Thirdly, experienced entrepreneurs located further away from their banks are less likely to be credit rationed compared to novice entrepreneur. This study has several implications for commercial bank managers (practitioners) and policy makers in Ghana in particular and in general for all developing countries.

## Contents

Abstract	iii
Contents	iv
List of appendices	ix
List of tables	x
List of figures and maps	xii
Acronyms	xiii
Acknowledgement	xiv
Declaration and statement of copyright	xv

### PART ONE

Chapter 1	Introduction and overview	1
1.1	Introduction	1
1.2	Definition of small businesses	2
1.3	The contributions of small businesses to national development	3
1.4	Statement of the problems	7
1.5	Gaps in the knowledge base	11
1.6	Focus and purpose of this study	12
1.7	Significance of this study	15
1.8	Thesis structure	16
1.9	Conclusion	19

## PART TWO

Chapter 2	Entrepreneurship theory	21
2.1	Introduction	21
2.2	Types of entrepreneurs	23
2.3	Entrepreneurial activities	25
2.4	Human capital theory	30
2.3	Social capital theory	39
2.4	Conclusion	52
Chapter 3	Financing micro, small and medium-sized enterprises	55
3.1	Introduction	55
3.2	The capital structure of businesses	57
3.3	The capital structure of small businesses and start-ups	63
3.4	Determinants of the capital structure of small businesses	65
3.5	Sources of finance for small businesses	69
3.6	Obstacles to bank lending to small business entrepreneurs	82
3.7	Conclusion	100
Chapter 4	Credit rationing	102
4.1	Introduction	102
4.2	The concept of credit rationing	103
4.3	Definition of credit rationing, credit constraints and discouraged borrowers	106

4.4	Equilibrium credit rationing	110
4.5	Information and bank lending decisions	117
4.6	Relationship lending and bank lending decisions	122
4.7	Collateral and bank lending decisions	129
4.8	Small business entrepreneur and access to credit	135
4.9	Geographical distance and bank lending decisions	143
4.10	Uncertainties and trust characteristics in bank lending decisions	154
4.11	Empirical evidence on credit rationing	158
4.12	Conclusion	163

### PART THREE

Chapter 5	Research methodology	165
5.1	Introduction	165
5.2	The rationale for the choice of the study	166
5.3	Time frame	167
5.4	Theoretical framework	168
5.5	Operationalisation	172
5.6	The data collection instrument	190
5.7	Measures	193
5.8	Piloting and Screening	214
5.9	Questionnaire administration	215
5.10	Examining non-response bias	221
5.11	Data presentation and analysis	224

5.12	Validity and reliability of survey findings	227
5.13	Problems encountered during the fieldwork	231
5.14	Conclusion	233
PART FOUR		
Chapter 6	Entrepreneurs and sources of start-up capital	236
6.1	Introduction	236
6.2	Empirical findings	238
6.3	Conclusion	264
Chapter 7	Credit rationing of novice, serial and portfolio entrepreneurs	268
7.1	Introduction	268
7.2	Empirical findings	271
7.3	Conclusion	299
Chapter 8	Entrepreneur-bank distance and geographical credit rationing	302
8.1	Introduction	302
8.2	Empirical findings	305
8.3	Conclusion	319
Chapter 9	The role of trust in bank-entrepreneur lending decisions	322
9.1	Introduction	322
9.2	Empirical findings	325
9.3	Conclusion	334

## PART FIVE

Chapter 10	Summary, conclusion and recommendations	338
10.1	Introduction	338
10.2	Summary of literature review	340
10.3	Summary of empirical findings	346
10.4	Theoretical and practical implications of the findings of the study	352
10.5	Recommendations for commercial bank managers (practitioners) and policy makers for the improvement of small business entrepreneurs financing	360
10.6	Limitations of the study and implications for future studies	368
	References	370



## **List of Appendices**

### **Appendix**

- |   |     |
|---|-----|
| 1. Definition of credit rationing                                 | I   |
| 2. Screening and clarification questionnaire for small businesses | II  |
| 3. Questionnaire for small business entrepreneurs                 | III |
| 4. Questionnaire for bank credit managers                         | IV  |

## List of Tables

### Table

5.1	Summary of the key characteristics of interviewees	209
5.2	Coding schemes for bank lending process	210
5.3	Coding schemes for developing trust relationship lending	211
5.4	Coding schemes for developing trust in collateral lending	212
5.5	Summary of coding schemes for responses to the questions uncertainties and trust in lending decisions	213
6.1	Sources of finance and the most important source of finance at start-up stage	239
6.2	Estimates of a logit model of the probability of using sources of finance at start-up sources.	249
7.1a	Credit rationing by type of key founder: novice and habitual entrepreneurs	274
7.1b	Credit rationing by types of key founder: novice and habitual entrepreneurs	275
7.2	Estimates of a logit model of credit rationing in the last year	281
7.3	Estimates of a logit model of credit rationing in the last 1-2 years	282
7.4	Estimates of a logit model of credit rationing in the last 2-3 years	283
7.5	Applied for finance and received no external finance in the last year	296
7.6	Applied for finance and received no external finance in the last 1-2 years ago	296
7.7	Applied for finance and received no external finance in the last 2-3 years ago	297
7.8	Applied for finance and received a reduced amount of external finance in the last year	297
7.9	Applied for finance and received a reduced amount of external finance in the last 1-2 years ago	298
7.10	Applied for finance and received a reduced amount of external finance in the last 2-3 years ago	298

8.1	Estimates of a logit model of credit rationing in the last year	308
8.2	Estimates of a logit model of credit rationing in the last 1-2 years	309
8.3	Estimates of a logit model of credit rationing in the last 2-3 years	310
8.4	Applied for finance and received no external finance in the last year	316
8.5	Applied for finance and received no external finance in the last 1-2 years ago	316
8.6	Applied for finance and received no external finance in the last 2-3 years ago	317
8.7	Applied for finance and received a reduced amount of external finance in the last year	317
8.8	Applied for finance and received a reduced amount of external finance in the last 1-2 years ago	318
8.9	Applied for finance and received a reduced amount of external finance in the last 2-3 years ago	318

## **List of Figures and Maps**

### **Figures**

- |     |   |     |
|-----|---|-----|
| 4.1 | An equilibrium credit market with asymmetric information          | 113 |
| 9.1 | Decision tree showing the role of trust in bank lending decisions | 328 |

### **Maps**

- |     |                             |     |
|-----|-----------------------------|-----|
| 5.1 | Map of Ghana                | 188 |
| 5.2 | Map of Greater Accra Region | 189 |

## Acronyms

AGI	Association of Ghana Industries
EVCA	European Private Equity and Venture Capital Association
FINSAP	Financial Sector Adjustment Programme
FAGE	Federation of Associations of Ghanaian Exporters
GAC	Ghana Association of Consultants
GAWE	Ghana Association of Women Entrepreneurs
GEPC	Ghana Export Promotion Council
GNCCI	Ghana National Chamber of Commerce and Industry
IFC	International Finance Corporation
ISSER	Institute of Statistical Social and Economic Research
MSME	Micro, Small and Medium Enterprise
OECD	Organisation for Economic Cooperation and Development
NBSSI	National Board for Small Scale Industry
SME	Small and Medium Enterprise
UNECA	United Nation Economic Commission for Africa
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organisation
UPS	United Parcel Services

## **Acknowledgements**

I would like to thank the Almighty God who provided me with wisdom, knowledge and understanding, strength and resources to begin and complete this study. Sincere thanks to Durham Business School for paying part of my tuition fees enable me study in Durham University. My profound indebtedness to my supervisor Dr. Paul Robson for his patience, guidance, advice and commitment towards my studies. I am also profoundly grateful to my supporting supervisors Prof. Simon Parker and Prof. Paul Westhead for their support and advice.

In particular, I would like to thank all the managing directors and heads of credit departments and Small and Medium-Size Enterprises (SMEs) units of the various banks in Ghana, leaders of associations, groups and government agencies working with SMEs. My sincere appreciation to all entrepreneurs who supported my studies by providing vital information to the questions posed to them during the fieldwork.

I remain greatly indebted to my family for their contributions and support towards my education to this level. The following in particular deserve mention; my parents Mr. Joshua Akuetteh and Mrs. Adelaide Akuetteh, my auntie Mrs. Lydia Johnson, uncles Victor, John (deceased), James (deceased), Andrew and Emmanuel (deceased) Quaye-Foli for their assistance and support over the years. I am also grateful to my sisters Mrs. Felicia Ofosu and Grace Johnson (deceased), brothers Philbert Johnson, Samuel, Emmanuel and Joshua Akuetteh for their moral support. I am also grateful to all my cousins, nephews and nieces for all the support.

My deepest gratitude goes to my wife, Mrs Mercy Akuetteh and children Adelaide Akuetteh and Michael Akuetteh for their inspiration and support. I am also grateful to them for admirably bearing the challenges of separation with hope and determination.

### **Declaration**

I certify that the material contained in the thesis has previously not been submitted for a degree in this or any other university. I also hereby guarantee that no part of this research has been published in any institution of higher learning in this or any other country.

.....

**Charles Kingsley Akuetteh**

### **Statement of copyright**

The copyright of this thesis rests with the author. Due acknowledgement must always be made of any material contained in, or derived from this thesis.

In spite of the teamwork which has produced this thesis, I take ultimate responsibility for any outstanding errors of omission and commission.

# Chapter 1

## Introduction and overview

### 1.1 Introduction

Previous research has empirically investigated the existence or otherwise of credit rationing of small businesses in both developed and developing economies (Aryeetey et al., 1994; Baydas et al., 1994; Levenson and Williad, 2000; Okurut et al., 2005; Voordeckers and Steijvers, 2005; Tagoe et al., 2005; De Meza and Webb, 2006; Craig et al., 2007; Blumberg and Letterie, 2008). Particularly lacking are studies on the evidence of credit rationing on individual entrepreneurs as founders and/or owner-managers of these small businesses. To fill this gap, this study examines two sets of data from entrepreneurs of small businesses and credit managers of commercial banks in Ghana. The study has several implications for commercial bank managers and policy makers in Ghana in particular and in general for all developing countries.

The aim of the study was to investigate the extent to which entrepreneurs of small businesses with 4-50 employees in Ghana over the three year period January 2004 – December 2006, were able to access bank credit they required for working capital and long-term investment projects. With the launch of the 'Golden Age of Business' by the Government of Ghana in 2001, most policies of the Government have been geared towards the development of small businesses with employees of between 4 and 50 (Sowa, 2003). It is therefore appropriate to limit the study to small businesses with this employment level where much attention is being focused.

There is not a universal standard for the definition of small businesses; they are often content specific and they vary from country to country (OECD, 2002;





Ayyagari et al., 2003). As a result of the diverse set of definitions on small businesses, it is important for studies to adopt a unique definition of small businesses based on the specific purpose and for the specific usage of the study rather than on a universal or national standard (Harper, 1984; Levitsky, 1989). The next section therefore provides the definition of small business to be used in this study.

## **1.2 Definition of small businesses**

The definition of micro, small and medium-size enterprises (small businesses) varies within countries and within different markets (Auciello et al., 1975) and depending on the purpose for which the definition is being carried out (Liedholm and Mead, 1987) and also the level of national development in the country (UNIDO, 2006). Defining what a small business is has always been a difficult issue amongst scholars and policy makers, often generating unresolved debates. The challenges include the terminology, the form and the scope to adopt and use.

In Ghana, the most used criterion in defining small businesses in surveys is the quantitative characteristics (Statistical definitions) using mainly the number of employees (Steel and Webster, 1992; Sowa et al., 1992; Okoh and Ping, 2000; Aryeetey, 2001; Quartey, 2001; Amonoo et al., 2003; Wolf, 2004; Mensah, 2005). This study therefore adopts the definition of a small business as an *enterprise employing not less than 4 employees and not more than 50 employees*. Enterprises with less than 4 employees are excluded because they are more likely to be oriented towards income for survival or subsistence and are best seen in the informal sector (Steel and Webster, 1992). Similarly, enterprises with over 50 employees are excluded because they are regarded as large enterprises (Boon, 1989; NBSSI, 1997) and are not likely to encounter credit constraints with the banks (Parker, 2002).

A number of scholars and policy makers have described small businesses in varying ways as being the backbone of the economy (Green, 2003; Wattanaputtipaisan, 2003), as an engine for growth in both developed and developing countries (Boocock and Shariff, 2005), as the principal driving force for economic development (Szabro, 1996) and the lifeblood of most economies (Luetkenhorst, 2004). Based on these descriptions the next section reviews the contributions of small businesses to national development.

### **1.3 The contributions of small businesses to national development**

The contributions of small businesses to the growth and development of the economies of developing countries have been widely recognised (Kayanula and Quartey, 2000). Small businesses have over the years contributed substantially to economic growth, the creation of employment opportunities, the advancement of innovation, social cohesion, poverty reduction, the generation of export revenue (Mensah, 1996; Harvie and Lee, 2001; Lerner 2002) and local, national and regional development (Smallbone and Welter, 2001). Small businesses are considered a major contributor to national output in Ghana. They provide employment (Steel and Webster, 1991) and income to a large portion of the urban labour force (Aryeetey, 2001). Cook and Nixson (2000) emphasised the importance of small businesses in socio-economic development and in particular their major role in poverty alleviation in Africa.

- *Employment generation*

In both developed and developing economies, small businesses tend to use more labour-intensive production processes and thus generate more employment compared to large enterprises (Santos, 2003). In most developing countries it is estimated that small business are a potential source of employment and generate employment of between 50-60% of the total labour force (Kennedy and Hobohm, 1999; Chen, 2001; Luetkenhorst, 2004). In a survey conducted in some African nations including; Botswana, Kenya, Lesotho, Malawi, Swaziland, Zimbabwe and South Africa, Liedholm (2002) observed that small businesses employs between 17% and 27% of the working age group. Small businesses in most developing countries are said to generate employment mainly for novice and nascent entrepreneurs, as well as the unskilled labour force (Albaladejo, 2002; Biggs, 2003) and in terms of sector, small businesses generate more employment within the service and agriculture sectors compared to that of the manufacturing sector (Liedholm and Mead, 1999).

In spite of the pivotal role played by the small businesses in employment generation, a number of questions have been asked about their effectiveness and efficiency in employment creation. Little (1988) argued that the size of employment and level of productivity is not commensurate. Besides, the employment generated by the small businesses are seasonal or temporary, and also the level of remuneration, job satisfaction, working conditions and productivity are low compared to those of the large enterprises (Rosenzweig, 1988).

- *Contribution to national output*

Small businesses are considered major contributors to national output in Ghana, providing employment and income to a large portion of the urban labour force

(Aryeetey, 2001). The contributions of small businesses to job creation have been well noted, accounting for about 85% of manufacturing employment in Ghana (Okoh and Ping, 2000). Small businesses also contribute over 70% of Ghana's Gross Domestic Product (GDP) (Steel and Webster, 1991). Cook and Nixson (2000) emphasised the importance of small businesses in socio-economic development and in particular their major role in poverty alleviation in Africa.

- *Equitable distribution of income and opportunities*

Small businesses in a region or local community provide employment for the labour force in a region. The generation of employment provides the labour force and their dependents with an opportunity to enjoy goods and services and also earn an income (Albaladejo, 2002). The inter-related small business activities which are widely dispersed reaches the remote areas of the region; thus providing a redistribution of income and livelihood opportunities for the region and thereby reducing the income gap (Manuh and Brown, 1987; Luetkenhorst, 2004).

- *Promotion of entrepreneurial skills*

The promotion of entrepreneurial skills through the education and training of employees within the small business sector provide a platform for the development of new methods instead of using standard procedures (Born and Altink, 1996). These entrepreneurial skills also brings along entrepreneur's initiative, risk taking and opportunity recognition (Kourilsky, 1995). The creation of new jobs means the provision of new opportunities for entrepreneurs to employ new hands, offer more training and thereby lead to an increase in entrepreneurial skills (Albaladejo, 2002).

- *Mobilisation of resources*

Most small businesses in developing countries adopt labour intensive methods of production and are therefore more flexible in their choice of production methods. Also, by using simple technology and local raw materials, small businesses are able to mobilise the required resources to support themselves within a cluster (Sandee and Rietveld, 2000). Entrepreneurs within a cluster are able to share or use machinery, tools and equipment belonging to other businesses (Sverrisson, 1994), share technical skills and knowledge (Meyer-Stamer, 2000) and produce components, goods and services to meet each others needs (Sverrisson, 1997).

Small businesses are also able to produce goods and services primarily for the domestic market (Szabro, 1996). Besides, small businesses also serve as either a source of raw materials utilisation or as a raw materials producer and thus they play a pivotal link between small and large enterprises (Luetkenhorst, 2004).

- *Innovation and technology transfer*

Innovation involves the introduction of a new product, a qualitative change in existing product, the opening of a new market, the development of a new supply source and a change in productive and technological processes (OECD, 1997; Boer and During, 2001; Goswami and Mathew, 2005). An entrepreneur's ability to innovate depends on the available skills and knowledge required to effectively absorb, master and improve existing technologies and create new ones (Lall, 1992). Entrepreneurs of small businesses are well noted for their innovative ideas as they may be faster at recognising opportunities, are more flexible in adjusting to changes in production process (Rogers, 2004) and are more reliable in the creation, adaptation and fusion of new ideas (Mitra, 2000).

Technology can be defined as ‘a systematic body of knowledge about how nature and artificial things function and interact’ (Itami and Numagami, 1992 pp. 119). Technological knowledge is tacit in nature and requires learning before it can be transferred, imitated or mastered (Nelson and Winter, 1982; Nahapiet and Ghoshal, 1988; Reed and De Fillippi, 1990). Entrepreneurs requiring the transfer of technological knowledge are expected to build up their skills, put in much effort and invest considerable resources to acquire it (Nonaka, 1994). Entrepreneurs lacking the resources and skills needed for this transfer will have their businesses deficient in technological transfer (Hitt et al., 2000). Again, entrepreneurs of small businesses are more likely to adopt technological skills from their counterparts at a much easier and less expensive way (Rogers, 2004).

In spite of the numerous contributions of small businesses to the growth and development of both developed and developing nations, small businesses in many countries face a myriad of challenges (Sowa et al., 1992; Levy, 1993; Aryeetey et al., 1994; Kayanula and Quartey, 2000; Hall, 2002). The next section briefly presents the problem statement to be examined in this study.

#### **1.4 Statement of the problem**

The availability of credit is a major factor for the promotion of rapid economic growth in many nations (Ikhide, 2003; Omonona, et al., 2008) and this has important economic implications (Crook, 1996) for policy makers and practitioners (Berger and Udell, 1992; Pruteanu, 2004). The existence of financial constraints and credit rationing in the entrepreneurship and finance literature has long been recognised (Fazzari et al., 1988; Evans and Jovanovic, 1989; Johansson, 2000). Entrepreneurs have encountered many difficulties in accessing finance from lending institutions in

support of their working capital and fixed capital investments (Meyer 1989; Cruickshank, 2000). The activities of entrepreneurs are hindered by limited access to external finance (Blumberg and Letterie, 2008). Entrepreneurs with opportunities to invest into profitable ventures do face a number of challenges in accessing bank credit because of adverse selection and moral hazard problems (Green, 2003).

Generally small business entrepreneurs encounter many constraints to their growth and development. These include: input and labour constraints (Steel and Webster, 1992; Levy, 1993; Aryeetey et al., 1994; Parker et al., 1995); legal constraints (Pinheiro and Cabral, 1999; Kumar et al., 1999; Collier and Gunning, 1999); regulatory constraints (Johnson et al., 1998; Hoshi et al., 2003; Ting, 2004; UPS, 2005); administrative constraints (Kayanula and Quartey, 2000; Ayyagari et al., 2003); managerial constraints (Trulsson, 1999; Rauch and Frese, 2000; Davidsson and Honig; Santos, 2003; Dimov and Shepherd, 2005); technological constraints (Anderson, 1985; Neck and Nelson, 1987; Stewart, 1987); macroeconomic constraints (Smallbone and Welter, 2001; Mcmillan and Woodruff, 2002; Monge-Naranjo and Hall, 2003); globalisation, liberalisation, technological changes and competition (Sarder, 2001; Moy and Luk, 2003).

In addition to the constraints mentioned above many studies have also cited financing as the main obstacle to the growth in small businesses (Sowa et al., 1992; Parker et al., 1995; Wolf, 2004; Tagoe et al., 2005). In their study on the barriers to growth in Ghana among small business entrepreneurs, Robson and Obeng (2008) observed that a high rate of inflation; a high interest rates and the high depreciation of the Ghanaian cedis are the main obstacles to growth. Wolf (2004) examined 100 small businesses in Ghana and noted that interest rates, access to credit, depreciation and inflation were the main obstacles to their growth.

Access to external finance can be limited by the presence of informational problems (Guiso, 1998). The asymmetric flow of information between the entrepreneur and the bank leads to market failure in the provision of finance to small business entrepreneurs (Levitsky and Prasad, 1987). This market failure creates an excess demand for bank credit over supply resulting in an imperfect market situation. The banks for reasons of optimal interest rate and profitability will ration credit to its borrowers rather than increase interest rates to resolve the increase in bank credit, hence leading to credit rationing among some business (Blinder and Stiglitz, 1983; Wette 1983; Gale and Hellwig, 1984, Voordeckers and Steijvers, 2005). As a result of these information asymmetry problems between banks and entrepreneurs, banks are reluctant to offer credit to these small businesses (Stiglitz and Weiss, 1981) as they regard them as high risk ventures (Nissanke, 2001; Tagoe et al., 2005). Credit rationing therefore occurs if in equilibrium the demand for bank credit exceeds the supply at the ruling interest rate (Voordeckers and Steijvers, 2005).

Banks are unable to clear the credit market of excess demand by raising their interest rates beyond their optimal point because when they do, credit risk will increase because of the problems of adverse selection and moral hazard. Banks will therefore prefer to reduce the credit volume, ration credit or increase collateral requirements to clear the increased demand (Berger and Udell, 1990; Coco, 2000; Elsas and Krahn, 2000; Manove et al., 2001; and Inderst and Muller, 2007). Again due to these imperfect information flows, banks very often restrict the provision of credit to specific projects as well as the business size, entrepreneurial experience, business track record, provision of collateral and geographical location of applicants (Schiffer and Weder, 2001; Lieholm, 2002; Atieno, 2001; van Eeden et al., 2003; Ogujiuba et al., 2004; and Okurut et al., 2004). Information is a vital tool in any



relationship. The presence of asymmetric information has two main effects on the bank-entrepreneur relationship, and they are adverse selection and the moral hazard effects (Stiglitz and Weiss, 1981).

The literature has also demonstrated the importance of distance to the availability and pricing of bank loans (Petersen and Rajan, 2002; Wolken and Rohde, 2002; Degryse and Ongena, 2005; Brevoort and Hannan, 2006; and Carling and Lundberg, 2005). There is also the centralization of business lending decisions which is now reducing the discretionary roles of branch managers (Bannock and Doran, 1991; Binks et al., 1992). Asymmetric information with its effects of adverse selection and moral hazard affect small businesses access to bank credit. The problem of asymmetric information and the resulting adverse selection and moral hazard are further complicated by the increasing banking competition leading to greater concentration (Petersen and Rajan, 1995).

To resolve the asymmetric information problems, banks may resort to the use of a non-price rationing mechanism (Stiglitz and Weiss, 1981; Binks and Ennew, 1996; Bester 1987; Bester and Hellwing, 1989). One example of this mechanism is the request by banks for entrepreneurs to support their credit applications with a collateral security (Stiglitz and Weiss, 1986; Clemenz, 1986; and Chan and Thakor, 1987). Another technique in resolving this asymmetric information problem is the application of a credible bank-entrepreneur relationship (Boot, 2000; Berger and Udell, 2002; Cardone et al., 2004). Banks use both the interest rate and the collateral to clear the market of the excess demand and to reduce credit risks. However, not all entrepreneurs or their businesses have the requisite collateral and are therefore credit rationed. This creates a financial gap in the debt market (Storey, 1994).

## **1.5 Gaps in the knowledge base**

Despite the large body of theoretical literature concerning credit rationing, there is little evidence to show about the economic significance of credit rationing in the economies of developing countries (Bigsten et al., 2000; Atieno, 2001; Azam et al., 2001). Empirical tests on the theories of equilibrium credit rationing in developing countries are scant. This is mainly due to the paucity of micro data on the contractual terms of individual commercial bank loans. Most empirical tests have used macro data sets rather than micro data in their investigation of the existence and significance of credit rationing, and this has led to inconsistent results (Berger and Udell, 1992).

Besides, the main empirical tests conducted within the last decade have focused mainly on the United States and Europe. Notably among these works are: Steijvers and Voordeckers (2005) for SME's in Belgium; Lehmann and Neuberger (2001) for SME's in Germany; Capra et al. (2002) for SME's in Spain; Carling and Lundberg (2005) for businesses in Sweden; Blumberg and Letterie (2008) for businesses in Holland, Freel (2007) for businesses in Scotland; Russo and Rossi (2001), Trovato and Alfo (2006) and Piga and Atzeni (2007) for businesses in Italy; and Berger and Udell (1992), Petersen and Rajan (2002) and Mushinski and Pickering (2007) for small businesses in the USA. The studies on Africa are mainly focused on the informal sector. Examples include Okurut et al. (2005) for SME's in Uganda and Azam et al. (2001) for manufacturing businesses in Cote D'Ivoire.

However, this study differs from previous studies on credit rationing, in that micro data was applied. This allows the study to analyse the empirical implications of the credit rationing results. One other way in which this study differs from other studies is that it used data on the entrepreneur's access to bank credit rather than the business (Baydas et al., 1994). Parker (2002) has called for more empirical research

on the existence of credit rationing, its impact and extent among socio-economic groups.

This study, therefore, attempts to fill the academic gap in the African region and empirically investigate the empirical significance of credit rationing of entrepreneurs of small businesses in a Ghanaian context. This study also attempts to replicate and extend previous research by focusing on the human and social capital profile of entrepreneurs and their access to external finance. Also, this study attempts to investigate which type of entrepreneur is actually more likely to be credit rationed. Based on this background, the next section outlines the objectives of this study.

#### **1.6 Focus and purpose of this study**

This study explored the presence of credit rationing in Ghana and explain its impact on bank credit availability to small business entrepreneurs. Secondly, the key unit of this study is to examine how the experienced entrepreneur compared to the novice and start-up entrepreneur utilises general and specific human capital and social capital to access external finance in the presence of credit rationing situations. Specifically, this study with respect to extending previous studies, aims at exploring entrepreneurs prior ownership experience, education, location, reputation and trust and how these factors influences an entrepreneur's access to external finance at the start and growth stages of their businesses.

A number of studies have examined the resources of the entrepreneur and how these resources influence the entrepreneurial access to external resources (Westhead and Wright, 2000, Ucbasaran et al., 2001). The performance and successes of entrepreneurs are largely dependent on their level of education, training, prior work experience and the social ties, social bonds and social networking skills they possess

(Wright et al., 1997a). Entrepreneurs with higher levels of education, productivity skills and work experiences are considered to possess a higher competitive advantage over inexperienced entrepreneurs in terms of information search, opportunity identification, exploitation and pursuit (Brüderl et al., 1992; Davidsson and Honig, 2003; Dimov and Shepherd, 2005). The presence of social ties and bonds between two parties facilitates information flow and generates trustworthy behaviours (Aldrich and Zimmer, 1986; Gulati and Garguilo, 1999; Adler and Kwon, 2002). Together, all these factors provide the experienced entrepreneur with a much easier access to bank credit compared with the inexperienced entrepreneur (Hellmann and Puri, 2002; Hsu, 2003).

The study aimed to explore and collect adequate data to address the research questions and also test the research hypotheses outlined in the empirical chapters on entrepreneurs' access to bank credit over the three year period January 2004 – December 2006. The primary data used in this study comes from a survey of small businesses located in the 6 districts of the Greater Accra Region of Ghana. The survey started with a stratified random sample of 1200 entrepreneurs who have a banking relationship with banks in Ghana, between January 2004 and December 2006. A face-to-face administration of the questionnaires was carried out with a follow-up in-depth interview on selected entrepreneurs and senior bank officials.

Of the 1200 entrepreneurs sampled, 750 entrepreneurs were short listed for the survey. During the five month survey, 522 questionnaires were completed. Of this number 9 responses were eliminated because the businesses were found to have fallen outside the selection criteria. Another 13 responses were eliminated because almost all the responses were unsatisfactorily answered. In total, 500 valid questionnaires were obtained. From this number, 4 responses were excluded because the

respondents' responses were inconsistent. The final valid responses of 496 questionnaires were achieved and yielded a 66% response rate. This rate is considerably higher than similar surveys of entrepreneurs and small and medium-sized enterprises studies (Storey, 1994; Forbes, 2005).

From the above, this study keys into the emerging studies on entrepreneurial possession of human and social capital and its influence on access to external resources and seeks to make both theoretical and empirical contributions. Based on these, specifically, the objectives of the study are:

- i. To identify the sources of start-up finance for small business entrepreneurs;
- ii. To establish the presence of credit rationing amongst novice, serial and portfolio entrepreneurs;
- iii. To identify the impact of geographical distance on bank credit availability to peripherally located small business entrepreneurs;
- iv. To ascertain the role of trust in bank lending decisions under conditions of uncertainties.

Following from the above objectives the following research questions will be examined:

- i. What are some of the challenges entrepreneurs and small businesses encounter in accessing external finance?

- ii. What sources of start-up capital are available to experienced and inexperienced entrepreneurs at the start of their new ventures?
- iii. In accessing bank credit which of the types of entrepreneurs - novice, serial and portfolio entrepreneurs is more credit rationed?
- iv. What impact does geographical distance make on bank credit availability to experienced and inexperienced entrepreneurs in peripheral locations?
- v. What role does trust play in bank lending decisions under conditions of uncertainties?

### **1.7 Significance of this study**

In most developing countries bank credit is the main source of finance for domestic businesses (Berger and Udell, 2002; Wattanapruttipaisan, 2003). The ever increasing number of applications for commercial bank loans and the readiness of entrepreneurs to pay interest rates over and above the advertised rates is a strong indication of the excess demand for credit by small businesses (Aryeetey et al., 1994). There is also evidence that small businesses in both developed and developing countries have experienced some difficulties in accessing credit from the banks (Levitsky and Prasad, 1989; Berger and Udell, 2002). Bigsten et al., (2000) observed that about 90% of small businesses' credit applications are declined because they are unable to meet the credit application requirements such as collateral security.

In spite of the increasing demand for bank credit, commercial banks are unable to supply the required credit to small businesses because of higher transaction costs,

high default rates, a lack of collateral and the perceived risks associated with small businesses lending (Binks and Ennew, 1996; Levitsky, 1997, Vogel and Adams, 1997; Nissanke, 2001). Additionally, the acquisition of reliable information on small businesses is difficult to collate and the high probability of default deters banks from lending to small businesses (Aryeetey et al., 1994). Binks et al., (1992) asserted that small businesses experiencing difficulty in accessing bank credit may not be due to their size but due to the problems associated with information available on the success of their investment project. The findings of this study will provide additional guidance to entrepreneurs, practitioners and policy makers.

### **1.8 Thesis structure**

This thesis is organised into five parts which together consists of ten chapters. Part one consists of chapter one which provides the introduction and overview of the study. Part two consists of three chapters. Chapter two, the first of the three chapters in part two, will provide the theories of entrepreneurship. This is followed by chapter three which will provide a review of the literature on the financing of small business entrepreneurs. Chapter four, the last chapter in part two will also provide a literature review on the credit rationing of small businesses. Part three contains chapter five as the methodology chapter. Part four consists of four chapters which present the empirical results. Part five contains chapter ten as the conclusion.

Chapter two will evaluate the theories of entrepreneurship. Beginning with an introduction, the chapter will review the types of entrepreneurs in section two, and discuss the entrepreneurial activities in section three. The chapter will also examine the human capital theory in section four and the social capital theory in section five. Section six will conclude the chapter.

Chapter three will begin with an introduction. This will be followed by an examination of the capital structure of businesses in section two and the capital structure of small businesses and start-ups in section three. The fourth section will examine the determinants of the capital structure of small businesses and section five will examine the sources of finance for start-up businesses and set up the relevant hypotheses. Section six will discuss the obstacles to bank lending to small businesses and will also evaluate the factors affecting the availability and accessibility of credit to small business. Section seven will conclude the chapter.

Chapter four will review the theoretical and empirical evidence of credit rationing. The chapter begins with an introduction, and this will be followed by a discussion of the concept of credit rationing in section two. Section three will review the definition of credit rationing, credit constraints and discouraged borrowers. This will be followed in section four by an examination of the equilibrium credit rationing, the Stiglitz and Weiss (1981) credit rationing model and the criticisms of this model. A literature review will be carried out on information and bank lending decisions in section five, and relationship and bank lending decisions in section six. Section seven will review the literature on collateral and bank lending decisions. Section eight will examine small business's access to bank credit and set up the relevant hypotheses. Section nine will also review the literature on geographical distance and bank lending decisions and set up the relevant hypotheses. Section ten discusses the issues relating to uncertainties and trust in bank lending decisions and also set up the relevant propositions. The literature on empirical credit rationing will be reviewed in section eleven. Section twelve concludes the chapter.

Chapter five outlines the methodology. The chapter will begin with an introduction, followed by the rationale for the study in section two. The third section



will outline the time frame for the study and section four will discuss the theoretical framework. The operationalisation of the research will be outlined in section five and the data collection instruments in section six. Section seven will provide the measures on the variables to be used. Section eight will outline the piloting and screening process to be used in the survey. Section nine will describe the questionnaire administration. Section ten will examine the non-response bias. Section eleven will provide the data preparation procedures and analysis. Section twelve will present the validity and reliability of the survey and section thirteen will outline the problems encountered during the fieldwork and section fourteen concludes the chapter.

Chapter six will investigate the entrepreneur's use of internal and external sources of start-up capital in Ghana. The entrepreneurs' choice of start-up capital, the type and amount of finance used is influenced by the entrepreneur's background, level of education, prior business ownership experience and social network ties. More specifically, the chapter will aim at examining the differences between habitual entrepreneurs and novice entrepreneurs, their level of human capital possession and how this influences their sources and use of start-up capital. To achieve this objective, the survey questionnaire asked entrepreneurs to indicate their sources of start-up capital and also indicate the principle source among the sources used.

Chapter seven will examine empirically small business entrepreneurs' access to external finance in Ghana. The chapter will take into consideration the human capital resources possessed by the entrepreneur and how the allocation of this capital influences their access to bank credit. To achieve the desired results the survey questionnaire asked entrepreneurs to indicate whether they applied for bank credit within the three year period. The survey questionnaire also asked the entrepreneurs to indicate whether they were successful or not in their credit application, whether they

had the full amount or a reduced amount or were rejected outright. They were also asked to indicate their level of education and number of years in business.

Chapter eight will presents an analysis on the impact of geographical distance on small business entrepreneurs' access to bank credit. The chapter will present empirical findings on small business entrepreneur's access to bank credit using geographical distance variables and location variables.

Chapter nine will evaluate the lending decisions of banks in Ghana under conditions of uncertainty. The chapter specifically will examine the role of trust in bank lending decisions under conditions of uncertainty. To achieve this objective, indepth interviews of heads of credit or SME departments will be carried out among the various banks in Ghana. The chapter will then present the findings on how trust characteristics are able to influence bank lending decisions on small business entrepreneurs.

Chapter Ten will conclude the thesis. In this chapter a summary of the thesis findings will be presented. Discussions and conclusions on the thesis will also be drawn. Finally a number of recommendations will be made to support the financing of small businesses in Ghana.

## **1.9 Conclusion**

The introduction and overview chapter introduces the thesis to the reader. In this chapter a general overview of small business contributions, and the challenges they encounter in accessing bank credit are briefly discussed. In addition to this, the structure of the thesis was provided. Depending on the purpose of a study, many countries have different forms for the definition of small businesses (Auciello et al., 1975). It is well acknowledged that small businesses have made significant

contributions to economic development of many nations in terms of employment generation, income generation and poverty reduction (Harvie and Lee, 2002, Albaladejo, 2002).

Entrepreneurs of small businesses lack the financing required to move their business forward (Levy, 1993; Pissarides, 1999; Beck and Demirguc-Kunt, 2006). As such they rely on external financing such as banks to support their growth drive (Aryeetey et al., 1994; Nissanke, 2001). However, small businesses are unable to meet the bank requirement of information and collateral (UNCTAD, 2001; Wagenvoort, 2003; Aberejjo and Fayomi, 2005; Beck and Demirguc-Kunt, 2006). As a result, the problems of information asymmetry arises making bank lending to these small businesses unprofitable. Banks resolve this information asymmetry problem by demanding collateral, which the entrepreneur lacks (Cowling and Mitchell, 2003; Malhotra et al., 2006; Inderst and Muller, 2007). Hence most of these entrepreneurs are credit rationed by the banks (Stiglitz and Weiss, 1981; Zeller, 1994; Das, 2004).

Small businesses encounter many challenges in accessing bank credit. The objective of this study is to identify these challenges and offer relevant recommendations to policy makers, management of banks and entrepreneurs of these small businesses in Ghana specifically, and developing countries in general. This study therefore investigates the sources of start-up capital, explores entrepreneurial access to bank credit, evaluates the impact of geographical distance on entrepreneurial access to external finance and ascertains the role of trust in bank lending decisions under conditions of uncertainty. To achieve these objectives, the study begins with the review on the theories of entrepreneurship in the next chapter.

## Chapter 2

### Entrepreneurship Theory

#### 2.1 Introduction

Scholars in entrepreneurship have over the last two decades attempted to present a modern theory of entrepreneurship. However, these attempts have not yielded any meaningful conclusion mainly because of the lack of consensus on what must be included in the theory of entrepreneurship (Gartner, 2001; Alvarez, 2005). One significant role of the entrepreneur is the identification and exploitation of innovative ideas and the transformation of these ideas into economic opportunities. Entrepreneurship is about change, creativity, knowledge, innovations and flexibility. Entrepreneurs are therefore considered risk-takers who pursue economic opportunities that others either fail to recognise or view as problems or threats (UNCTAD, 2004).

This chapter specifically examines the types of entrepreneurs, their key resources and their impact on the entrepreneur's access to finance. In addition, the chapter discusses the human capital theory and the social capital theory possessed by the entrepreneur and how these resources impacts on the entrepreneurial performance and access to resources including finance. This chapter therefore provides the theoretical contextualisation for the study and also provides the basis for the comparison of the various types of entrepreneurs and their access to bank credit in the empirical chapters.

The functional role of entrepreneurship includes coordination, innovation, uncertainty bearing, capital supply, decision making, ownership and resource allocation (Barreto, 1989; Jääskeläinen, 2000; Friijs et al., 2002). Of these functional

roles of the entrepreneur, innovativeness, opportunity seeking and risk taking, are considered the major functions (OECD, 1998; Carree and Thurik, 2002). Wennekers and Thurik (1999 pp. 46) summed up the functional role of the entrepreneur in their definition of entrepreneurship as “the manifest ability and willingness of individuals, on their own, in terms within and outside existing organisations, to perceive and create new economic opportunities (new products, new production methods, new organisational schemes and new product market combinations) and to introduce their ideas in the market, in the face of uncertainty and other obstacles, by making decisions on location, form and the use of resources and institutions”.

The origin of entrepreneurship is seen at the individual level, with innovative ideas and initiatives achieved at the firm level and the general entrepreneurial contribution to the economy is seen at the industrial and macro economic level (Carree and Thurik, 2002). The economic development of every nation is dependant to a large extent on the role played by the entrepreneur in the economy. The generation of new ideas, the results of innovation, the implementation of these ideas into new products, process or services by the entrepreneur, leads to employment generation, income generation, and the growth and development of the nation (Schumpeter, 1942; Dejardin, 2000; Jääskeläinen, 2000; Thurik and Wennekers, 2001).

The motives and actions of an entrepreneur are generally influenced by both internal and external factors. These factors include the macro economic conditions, the entrepreneurs' level of education, and the amount of experience (*human capital*), and cultural and social network ties (*social capital*). Theories of entrepreneurship have identified entrepreneurial successes and achievements such as human capital in the form of education and experience of the entrepreneur and the social and cultural

approaches such as norms, values, rules, kinship relationship and social ties as primary determinants of entrepreneurial actions and activities (Butler and Herring, 1991).

Policy makers have been confronted with the major task of formulating and implementation policies that would create an enabling environment to enhance entrepreneurial skills, ideas and initiatives for an effective and efficient utilisation of their innovative ideas and resources into social and economic products for economic growth (UNCTAD, 2004). In the light of this, three significant domains - access to finance, facilitation of entry and exit of businesses and government support schemes have been identified (OECD, 2002).

This chapter examines the various factors influencing the theories of entrepreneurship that have attempted to explain the entrepreneur's actions and activities. The chapter is organised as follows. Section two discusses the types of entrepreneurs and section three discusses entrepreneurial activities. Section four reviews the human capital theory of the entrepreneur. Section five examines the social capital theory of the entrepreneur, the criticisms of social capital and the role of trust. Section six concludes the chapter.

## **2.2 Types of entrepreneurs**

In explaining the activities of entrepreneurs and their businesses, a number of theories have been developed (Cuevas, 1994; Westhead and Wright, 2000). However, there is no clear cut acceptable definition for the entrepreneur. To date there is no universally acceptable definition of what is entrepreneurship (Westhead and Wright, 2000; Wennekers et al., 2002). Some scholars have attempted to define an entrepreneur on the basis of who the entrepreneur is or what the entrepreneur does

(Gartner, 1990; Kolvereid and Bullvåg, 1993; Birley and Westhead, 1993). However, various studies have shown that entrepreneurs are not homogeneous entities and are of different types: novice, serial and portfolio entrepreneurs (Birley and Westhead, 1993; Kolvereid and Bullvåg, 1993; Hall, 1995; Westhead and Wright, 1998b). This study has therefore adopted the definition of the entrepreneur in these three forms: novice, serial and portfolio (Ucbasaran et al., 2001; Westhead et al., 2005a; Westhead et al., 2005b).

Novice entrepreneurs are defined as those “individuals with no prior business ownership experience but are presently having shares in businesses they have inherited, purchased, acquired or founded” (Ucbasaran et al., 2001 pp. 59). Serial entrepreneurs are defined as those “individuals who had closed or sold previous business in which they had shares and presently have shares in a new business they have inherited, purchased, acquired or founded” (Westhead et al., 2005b pp. 394). Portfolio entrepreneurs on the other hand are defined as those “individuals with prior business ownership experience and shares in several businesses they have inherited, purchased, acquired or founded” (Westhead et al., 2005c pp. 111). Habitual entrepreneurs are “those individuals with prior business ownership experience who have the capacity to start new businesses and launch new products” (Westhead et al., 2005b pp. 394). Generally, entrepreneurship theorists have viewed the entrepreneur as the key element in any analysis (Davidsson and Wiklund, 2001; Shane, 2000). Entrepreneurship is not only the creation of businesses (Birley and Westhead, 1993; Reynolds et al., 1994), but also involves the inheritance (Westhead, 1997) and purchase of already founded businesses (Cooper and Dunkelberg, 1986; Birley and Westhead, 1990, 1993, Robbie and Wright, 1996). The Organisation for Economic Cooperation and Development (OECD, 1998) has stressed the importance of

entrepreneurship in creating competition and also reducing unemployment. Regarding economic growth, entrepreneurs are seen as drivers (Casson, 1982; Reynolds et al., 1994). According to Bygrave and Hofer, (1991) the entrepreneurship process consists of imagination and creativity, idea generation, opportunity identification and exploitation, assembling and utilisation of resources.

Over the last two decades, studies have looked at the entrepreneur in various dimensions including their personal background, work experience, reasons for establishing businesses (Rosa, 1998; Westhead and Wright, 1998a; Ucbasaran et al., 2003), assets and liabilities (Starr and Bygrave, 1991), cognition of novice, serial and portfolio entrepreneur (Westhead et al., 2005a), entrepreneur behaviour and contributions (Westhead et al., 2005b). Regarding their search for information (Cooper et al., 1995) and their behaviour towards opportunity identification (Shane, 2000), entrepreneurs are seen as heterogeneous. The differences in their heterogeneity are as a result of the varying nature of their human capital such as skills and attributes (Becker, 1975, 1993), and cognitive characteristics (Alvarez and Busenitz, 2001).

## **2.3 Entrepreneurial activities**

### **2.3.1 Entrepreneurial prior business experience**

Prior business ownership experience of entrepreneurs may contribute to both assets and liabilities of the business. Business ownership experience, acquired through skills in management, technical, financial and marketing may lead to an improvement in the growth potential and profit margins of businesses (Starr and Bygrave, 1991; Teece et al., 1997). The experienced entrepreneur therefore gains a competitive advantage over the inexperienced entrepreneur in building reputation, developing



expertise, opportunity identification and exploitation and accessing external finance. Additionally, the experienced entrepreneur gains further assets through network development, information search and knowledge acquisition to facilitate opportunity identification and exploitation (Cooper et al., 1995; Shane, 2000). Habitual entrepreneurs who have experienced some challenges in their prior business, such as accumulating debts and higher repayment costs are also likely to benefit from prior business ownership experience (Starr and Bygrave, 1991). Prior business ownership experiences are beneficial to experienced entrepreneur (Ucbasaran et al., 2003).

Kirzner (1973) has noted that experienced entrepreneurs in possession of prior knowledge and relevant information have a better access to business opportunities compared to inexperienced entrepreneurs even if they are not actively searching for these opportunities. These experienced entrepreneurs do apply their imagination, understanding and knowledge of the business world to identify this business opportunities (Witt, 1998). Thus, prior business ownership experiences have the advantage of providing the entrepreneur with specific human capital skills making them more alert than novice entrepreneurs in business opportunity identification (Gaglio and Katz, 2001). This alertness of the habitual entrepreneur which is often gained through knowledge and experience is likely to be influenced by the level of information processing (Kaish and Gilad, 1991; Ucbasaran et al., 2006). Gaglio (1997) has noted that novice entrepreneurs apply a simple basic method in information search compared to habitual entrepreneurs who adopt a much complex method in search of information.

### **2.3.2 Entrepreneurial information search**

The extent to which an entrepreneur seeks business information and identifies business opportunities is determined by the prior business experience of the entrepreneurs (Cooper et al., 1995; Fiet et al., 2000; Shane and Venkataraman, 2000). Venkataraman (1997) noted that the differences in entrepreneurial opportunity recognition may occur as a result of the variation in an entrepreneur's knowledge base, information acquisition, cognitive and behavioural differences. Cooper et al., (1995) found that novice entrepreneurs do seek more information than habitual entrepreneurs. In contrast, Westhead et al. (2004) found that both portfolio and serial entrepreneurs in view of their prior business experience have a wider source of business information compared to the inexperienced novice entrepreneurs.

### **2.3.3 Prior knowledge and opportunity identification (recognition)**

One of the key elements of a successful entrepreneur is the identification of opportunities (Soo et al., 2002; Ardicivili et al., 2003). For entrepreneurs to excel and survive rigorous competition, they need to always identify over and above their capabilities, new opportunities to meet these challenges (Hamel and Prahalad, 1989; McGrath et al., 1996). Prior knowledge can be described as an entrepreneur's distinctive information about the business environment which provides the required capabilities to recognise business opportunities (Venkataraman, 1997; Shane, 2000). Prior knowledge consists of the entrepreneurs work experience (Cooper et al., 1994; Evans and Leighton, 1989), education (Gimeno et al., 1997; Ucbasaran et al., 2003a), and other capabilities (Shane, 2000). Entrepreneurs with prior experience on business operations concern themselves with the essential information regarding the potential

opportunity to achieve a more efficient business opportunity (Shepherd and DeTienne, 2005).

Gaglio and Katz (2001 pp. 95) have asserted that “understanding the opportunity identification process represents one of the core intellectual questions for the domain of entrepreneurship”. Recently, much concern have been shown by researchers on ‘why’, ‘when’ and ‘how’ some entrepreneurs have been able to identify opportunities while others have failed (Shane and Venkataraman, 2000). A number of factors have been recognised as an important element in an entrepreneur’s opportunity identification. These include the entrepreneur’s alertness (Kirzner, 1973; Kaish and Gilad, 1991; Busenitz, 1996; Gaglio and Katz, 2001), entrepreneur’s prior knowledge (Hayek, 1945; Venkataraman, 1997; Shane, 2000), entrepreneur’s cognitive abilities (Baron, 1998; Alvarez and Busenitz, 2001, Baron and Ensley, 2003), entrepreneur’s network abilities (Birley, 1985; Low and MacMillan, 1988; Floyd and Wooldridge, 1999; Singh et al., 1999), entrepreneur’s learning abilities (Corbett, 2002; Dimov, 2003) and entrepreneur’s creativity (Long and McMullen, 1984; Amabile, 1988). The level of prior knowledge the entrepreneur possesses is a determining factor in the number of opportunities identified (Shepherd and DeTienne, 2005).

#### **2.3.4 Entrepreneurial networking, opportunity pursuit, and exploitation**

One of the prior ownership experiences gained by the habitual entrepreneur over the novice entrepreneur is the ability to network. With this, the entrepreneur is able to link or connect with varied financial providers such as (banks, non-banks, venture capitalists and public sector grants), consultants and other businesses to identify an opportunity, pursue it and exploit it to their advantage (Zhang, 2007).

Networking skills gives the entrepreneur a large database of information about opportunities, access to vital resources including finance and human resources, and the ability to manage challenges (Sapienza et al., 1996; Hills et al., 1997; Floyd and Wooldridge, 1999).

Through the entrepreneurial process of cognition, discovery, understanding market opportunities and coordinating knowledge, inputs are turned into heterogeneous output (Alvarez and Busenitz, 2001). Westhead and Wright (1998a) have argued that an aspect of heterogeneity of entrepreneurship is the distinction between novice entrepreneurs and habitual entrepreneurs. This distinction raises the issue about the habitual entrepreneur's possession of cognitive abilities which will enable them to identify and exploit entrepreneurial opportunities to create competitive advantage. Researchers have argued whether entrepreneurs learn from their past experiences and whether these experiences provide the habitual entrepreneur with a better opportunity compared to the novice entrepreneur (Barney et al., 2001).

The level of education, work experience and capabilities of an entrepreneur has much influence on the entrepreneur's desires and abilities in pursuing business opportunities (Ucbasaran et al., 2006). Further, an entrepreneur's positive perception (Palich and Bagby, 1995) and representativeness (Busenitz and Barney, 1997) about a business affects the desire to exploit those business opportunities. Carroll and Masakowski (1987) have asserted that the habitual entrepreneur's ability to transfer information from the previous business to the new opportunity increases the entrepreneur's desire to pursue that new opportunity. The habitual entrepreneur's advantage over the novice entrepreneur is seen in the acquired knowledge and experience which can reduce the cost of exploitation (Shane and Venkataraman, 2000). Thus, at any given opportunity, habitual entrepreneurs have the ability to

identify more business opportunities than novice entrepreneurs (Ucbasaran et al., 2006).

From the above discussions on the entrepreneurial activities, performance and functions, there are evidences to support the notion that differences exist between novice, serial and portfolio entrepreneurs. This chapter further investigates some of the factors associated with entrepreneurs which initiate these differentials. Having examined the various types of entrepreneurs and their activities, it is essential that the study also assesses in the next two sections the relevance of human capital theory and social capital theory and their influence to both the entrepreneur and the small business. The next section therefore examines the influence of higher human capital possession and its impact on entrepreneurial performance.

#### **2.4 Human capital theory**

Human capital theory has asserted that the more an individual invests in knowledge and skills development, the more earning potential the individual possesses (Keane and Wolpin, 2001; Lochner and Monge-Naranjo, 2002). Human capital can be described as the knowledge, talents and productive skills of individuals. It is the stock of knowledge, skills and abilities which potentially is able to assist in the increase of productivity and performance. It can be measured in terms of the value of goods and services produced. Where the values of these goods and services rise or fall, the value of human capital will also rise and fall respectively (Thurow, 1970). Human capital embraces the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being (OECD, 2001).

A critical resource in small businesses is the attributes of human capital (education, experience, reputation and skills) possessed by the entrepreneur (Pfeffer, 1994) acting as a resource to the small business. The human capital resource makes entrepreneurs more efficient in their tasks (Brüderl et al., 1992) which in turn contributes significantly to the business's performance (Rauch and Frese, 2000). The human resource and capabilities an entrepreneur possesses in a business venture is the human capital of that business (Wright et al., 2001). Human capital therefore consists of the education, experiences, reputation and skills of the entrepreneur and or employees required in the business to achieve a set goal at a given opportunity and time (Boxall and Steeneveld, 1999; Rauch et al., 2005).

The social, physical, financial, and organisational resource of a business is dependent on the nature and level of the entrepreneur's human capital (Ucbasaran et al., 2003a). The key resource of a small business is the human capital of the entrepreneur (Westhead, 1995; Brown and Kirchhoff, 1997) and this has an influence on the entrepreneur's ability to undertake opportunities (Becker, 1975). In addition to the human capital possessed by the entrepreneur is the business ownership experience. Scholars have argued that two aspects of business ownership experience exist; firstly, the static aspect referring to the entrepreneurs' experience with assets and liabilities (Starr and Bygrave, 1991), and secondly, the dynamic aspect referring to the various learning techniques and cognitive behaviours the entrepreneur exhibits from a previous business ownership experience (Ucbasaran et al., 2003). Entrepreneurs can be founders of new businesses, owners of purchased or inherited businesses (Cooper and Dunkelberg, 1986; Ucbasaran et al., 2001).

The human capital theory asserts that individuals through the knowledge they possess are able to increase their cognitive abilities which allows them to be more

effective and efficient in their productive activities (Schultz, 1959; Becker, 1964; Mincer, 1974). This assertion presupposes that those individuals with higher education, more work experience and skills are likely to have superior abilities, achieve higher performance and become more successful in their economic ventures than those with a lower or less human capital (Davidsson and Honig, 2003; Dimov and Shepherd, 2005).

#### **2.4.1 General and specific human capital**

Knowledge is said to be either tacit or explicit (Polanyi, 1967). Tacit being the know-how and the explicit the know-what are both utilised by an entrepreneur in problem solving and decision making. Knowledge acquisition or its increase can be achieved through formal and informal education such as obtaining a university degree or gaining work experience (Evans and Leighton, 1989; Davidsson, 1995; Gimeno et al., 1997; Reynolds, 1997). Prior studies have made a distinction between different types of human capital categorising it into general and specific (Florin and Schultze, 2000).

General human capital is acquired knowledge and skills applicable to a broad range of activities. General human capital is acquired from one's formal level of education and general experience (Pennings et al., 1998). Specific human capital on the other hand is acquired skills or knowledge that is useful for particular context or single employer or industry. Among start-up and small businesses the specific human capital required for the operation and activities of the business resides in the skills and capabilities of the entrepreneur (Gartner et al., 1999). This implies that the success and growth of the small business is largely dependent on the entrepreneur (Cooper et al., 1994; Welbourne and Andrews, 1996).

#### **2.4.2 General human capital and entrepreneurial performance**

General human capital has traditionally been measured in terms of an individual's gender, age, education and parental background (Becker, 1975; Cooper et al., 1994). Scholars have argued that there is a relationship between human capital and superior performance in an organisation. They assert that competencies that achieve competitive advantage must be valuable, rare, inimitable, unique, non-transferable and non-substitutable (Barney, 1991; Lepak and Snell, 1999; Neal and Hesketh, 2002). These qualities can be achieved through knowledge which is evenly distributed among businesses and can be acquired within an organisation through cooperation, participation and development (Spender, 1996; Boxall and Steeneveld, 1999). The ability of entrepreneurs in identifying, integrating and accumulating new knowledge, as well as exploring new ventures is dependent on the level of human capital acquired through education and work experience (Starr and Bygrave, 1991; Weick, 1996).

Entrepreneurs during their career acquire adequate information and contacts relating to business opportunities and develop networks to their advantage (Starr and Bygrave, 1991; Hellmann and Puri, 2002; Hsu, 2003). This acquired information therefore guides them in their decision making and access to finance and labour (Hellmann and Puri, 2002; Hsu, 2003). In contrast, entrepreneurs with little or no business experience are deficient in decision making and are very often prone to making major mistakes. Gaglio (1997) has pointed out that the generation of business ideas may be facilitated or thwarted by the entrepreneur's expectation and interpretation of market stimuli. In identifying these business opportunities, entrepreneurs required some unique level of insight, aptitudes and skills (Venkataraman, 1997) and this gives them a greater advantage over other entrepreneurs who lack this qualities (MacMillan, 1986).



#### **2.4.2.1 Education and entrepreneurial performance**

In studying education under human capital theory, scholars have identified and categorised several types and means of education. Formal education is argued to consist of primary, secondary and tertiary (higher) levels (Cohn and Geske, 1990), informal education which could be acquired either at home or at the work place (Schultz, 1961), by means of apprenticeship or on the job training (Mincer, 1974) and also through vocational or technical education (Corazzmi, 1967).

Studies on the impact of education on entrepreneurial activities have been inconclusive. Some studies have found that well educated individuals are more likely to become successful entrepreneurs (Fairlie and Meyer, 1996) and also education has a positive association for both male and female entrepreneurs (Robinson and Sexton, 1994; Carr, 1996). Kilkenny et al. (1999) suggested that the success of a business is positively related to the entrepreneur's level of education, training, and business experience.

In contrast, Butler and Herring (1991) found that education was negatively related to self-employment. Greene (2000) also found that education had either no effect or a negative effect on entrepreneurship. In spite of these findings some scholars have found education to impact positively on entrepreneurial activities. Formal education is said to provide the entrepreneur access to social networks and an easier access to resources, increased opportunity recognition and entrepreneurial success (Anderson and Miller, 2003; Davidsson and Honing, 2003).

#### **2.4.2.2 Gender and entrepreneurial performance**

Female entrepreneurs have generally been associated with lower levels of human capital regarding education and training indicators (Becker, 1993). Female

entrepreneurs generally have fewer opportunities to develop relevant experience, have fewer contacts and have greater difficulty in assembling resources. Brush (1992) has also asserted that women entrepreneurs are less likely than male entrepreneurs to solely pursue economic goals. Due to the disadvantages they face, as well as the industrial sectors they select, some female entrepreneurs are unable to access finance (Verheul and Thurik, 2001; Cavalluzzo et al., 2002; Fletschner, 2006; Muravyev et al., 2007).

### **2.4.3 Specific human capital and entrepreneurial performance**

#### **2.4.3.1 Work experience and entrepreneurial performance**

The background and business ownership experience of the entrepreneur, the level of education, age, sex, track record and reputation, size and sector of the business are significant determining factors in the type and amount of finance used by the entrepreneur (Becker, 1993; Westhead et al., 2003b; Westhead et al., 2005b). Financial institutions do perceive entrepreneurs with proven track records as being more credible than those having failed in their initial venture or start-ups. Entrepreneurs who possess substantial business ownership experience and successful track records are expected to have made adequate personal savings, and with greater reputations, have better access to external sources of funds than the inexperienced entrepreneurs (Wright et al., 1997a). Additionally, experienced entrepreneurs rely on their networking abilities and availability of collateral in accessing funds from external sources including co-investors.

On the other hand, entrepreneurs who lack proven track records, business reputation and collateral are expected to rely more on internal sources of finance such

as having personal savings, gifts and loans from relations and friends to start or expand their businesses (Westhead et al., 2003b). Entrepreneurs with higher levels of human capital have less binding constraints in starting new ventures. Most small business entrepreneurs have difficulties accessing formal credit because they lack the proven track record, business information and collateral to support their credit application (Acs, 1985; Hernandez-Trillo et al., 2005; Kutsuna and Honjo, 2006; Bhaird and Lucey, 2006).

Wright et al. (1997a) argued that experienced entrepreneurs rely mostly on their past business ownership experience, reputation, ability to identify appropriate networking, and the adoption of new techniques in running a new business. The business ownership experience of entrepreneurs gives them an added advantage in terms of information and knowledge about the business world (Carter and Ram, 2003), social and economic network (Ehrenfeld, 1993; Witt, 2004) and this enables them to identify better business opportunities (Ucbasaran et al., 2003). Shane (2000) pointed out that the extent and depth of knowledge and experience the entrepreneur possesses influences the entrepreneur's ability to identify diverse business opportunities.

#### **2.4.3.2 Innovation and entrepreneurial performance**

The survival and growth of any business is dependent on the ability of management to learn, change the production process and to develop or introduce new ideas and/or products. The achievement of this innovative process by and large is dependent on the business' human capital resources, access to financial resources, organisational skill and capabilities, technology and marketing skills. There is also the need for the entrepreneur to invest a substantial amount of capital into new plant and

equipment, research and development, cooperation and networking, marketing research, new production techniques, new and innovative ideas, product and service innovation (Baldwin et al., 2002). Studies have shown that the factors that distinguish failed enterprises from surviving ones are the attainment of basic skills relating to human resources, finance, production, management and marketing by the entrepreneurs (Johnson et al., 1998).

In developing countries, access to finance is cited as a major challenge to small businesses. Unlike large businesses, small businesses are described as constrained in raising debt and equity finance. For the growth and development of any businesses there is the need for the entrepreneur to invest a substantial amount of capital into new plant and equipment, research and development, firm cooperation, marketing research, new production techniques, new and innovative ideas, and product and service innovation (Baldwin et al., 2002).

Innovation is of central importance in entrepreneurship (Marvel and Lumpkin, 2007; Zahra and Covin, 1995). Entrepreneurs who invest in creativity and innovation can enhance their technological and market opportunities. Innovation output studies have found that innovators are more likely to be credit rationed (Freel, 2007). Hewitt-Dundas (2006) argued that because small businesses often lack the technically qualified labour, and have a poor management of business information they face several constraints. These constraints are even more pronounced when these small businesses are undertaking innovative products or services as a result of their inability to raise the requisite finance, spread risks and also manage the high cost of production.

### **2.4.3.3 Exporting and entrepreneurial performance**

For the reasons of generating foreign exchange which could be used as collateral for borrowing (Tornell and Westermann, 2002), trading on the international market signifies efficiency and competitiveness (Ganesh-Kumar et al., 2001), and the achievement of economies of scale and an increase in sales and profitability, exporting businesses are considered more creditworthy than non-exporting businesses in accessing finance (Gelos and Werner, 2002). Export financing is the provision of credit facilities to meet the export requirements of exporters (Branch, 1995, Albaum et al., 1998). Branch (1995) noted that for any exporter to perform creditably in the export market, that exporter will in addition to relying on the quality, price and timely delivery of product will also consider the availability of credit or access to export finance as a major determining factor.

The work experience of entrepreneurs increases their network opportunities into developing customer and supplier relationships, accessing information, finance and requisite labour. Similarly, managerial experiences of entrepreneurs are useful for the identification, exploitation, coordination and utilisation of resources for the establishment of start-up businesses (Aldrich et al., 1998; Boden and Nucci, 2000).

Most small business entrepreneurs have managed to overcome these challenges regarding access to external finance through their interaction with social groups including family ties, friendship, financial institutions, other businesses and entrepreneurs and government agencies with the view to benefiting from these interactions. The next section therefore considers the relevance of social capital to the entrepreneur and its impact on performance and access to resources.

## 2.5 Social capital theory

A number of researchers have questioned why some entrepreneurs have had the ability to exploit opportunities and some have failed to do so (Sexton and Bowman, 1984; Begley and Boyd, 1987; Cooper and Dunkleberg, 1987). Various attempts have therefore been made to explain this phenomenon. Some scholars have proposed that the major differences in entrepreneurial abilities are the results of psychological variables, personal traits and some demographic factors (Low and MacMillan, 1988; Shaver and Scott, 1991).

An entrepreneur's human capital in the form of education, experience and financial capital provides the entrepreneur with greater capabilities to recognise, exploit and utilise varying opportunities in their business venture. However, the entrepreneur's human capital is inadequate to ensure a successful venture without the collaboration and connectivity to other social ties such as family and friends, community-based or organisational relationships (Bourdieu, 1983; Loury, 1987; Coleman, 1988, 1990). This social relationship is broadly referred to as social capital. Different Scholars have attempted to define social capital since Loury (1977) and Coleman (1988) introduced the topic.

Social capital is defined "as the resources embedded in social network accessed and used by actors for action" (Lin 2002 pp. 25), "accruing to the entrepreneur through social structure" (Gabbay and Leender, 1999 pp. 2), "facilitating the attainment of entrepreneurial goal" (Coleman, 1988 pp. 304), "for mutual acquaintances and recognition" (Bourdieu, 1986 pp. 249). These embedded resources entails trust, norms, networks (Putnam et al., 1993), share of knowledge, understanding, feeling of gratitude, reciprocity, respect and friendship (Burt, 1992; Adler and Kwon, 2002). The embedded resources shared between entrepreneurs

should of a necessity be of positive values such as telling the truth, the meeting of obligations and reciprocity to produce social capital as negative values are more likely to produce disaffection and non-cooperation among entrepreneurs (Fukuyama, 1997; Putnam, 2000).

Putnam (2000) suggested that social capital is the connection between individuals, their social networks, their norms of reciprocity, and the trust arising from the connection. Similarly, Cohen and Prusak (2001) describe social capital as a set of connections between people, which covers the trust, mutual understanding, and shared values and behaviours that binds the group. There is no clear cut definition of social capital as various scholars have attempted to define it. Thus, social capital definitions can be categorised into two groups: structural dimension and content dimension. Structural dimension refers to the basic elements of the network such as types of social ties, and connections (Bourdieu, 1983; Coleman, 1988; Nahapiet and Ghoshal, 1998; Woolcock, 1998). On the other hand, content dimension of social capital includes the types of norms, trust, shared understanding and those variables that bind the group (Fukuyama, 1999; Putnam, 2000; Cohen and Prusak, 2001).

### **2.5.1 Benefits of social capital**

The entrepreneur can generate numerous benefits from social capital. Amongst these are: access information, influence, control, power, contacts, connections, discovery and exploitation of opportunities, knowledge acquisition, trust and collective obligations. Firstly, information is critical to an entrepreneurial opportunity identification and exploitation. The informational benefits of social capital to the entrepreneur are not only seen in the access to the information, but also its quality, relevance and timeliness (Coleman, 1988; Adler and Kwon, 2002).

The process and utilisation of business information will not only enhance the entrepreneur's chances but also will facilitate business opportunities (Shane and Venkataraman, 2000). Through the social capital network, the amount of time and resources required by the entrepreneur to search and collect the necessary information is greatly reduced (Nahapiet and Goshal, 1988; Cohen and Prusak, 2001; Davidsson and Honig, 2003). This process creates advantages for the entrepreneur in a competitive environment thus providing higher rates of returns to the entrepreneur's business (Burt, 1992). Besides, the informational benefits of social capital are not only limited to the entrepreneur, but also to the business as a whole. An inter-business network of social capital also enhances business's access to relevant information and skills, allowing businesses to exchange vital information which are mutually beneficial (Powell and Smith-Doerr, 1994; Uzzi, 1997; Podolny and Page, 1998). Social capital also promotes a better knowledge sharing as a result of trust relationships and shared goals (Prusal and Cohen, 2001).

Secondly, social capital through its network ties also facilitates the entrepreneur's access to scarce resources. The entrepreneur gains access to vital information and contacts from their social relationship to identify, collect and utilise scarce resources (Birley, 1985; Greene and Brown, 1997; Uzzi, 1999). Again, through its social network ties, entrepreneurs gain access to vital knowledge of business opportunities (Boxman et al., 1991; Meyerson, 1994; Fernandez and Weinberg, 1997) and other innovative ideas (Burt, 1987; Rogers, 1995).

Thirdly, social capital is also beneficial to the entrepreneur through its elements of influence, control and power. Entrepreneurs are more likely to benefit from the more experienced and influential entrepreneurs in their social groups through the use of their influence, contacts and connections to get things done enabling them



to achieve their goals (Leana and Van Buaren, 1999; Shane and Venkataraman, 2000; Adler and Kwon, 2002). For example, Coleman (1988) found that some senators having built up their set of obligation from their senior colleagues, use these influences to get legislation passed, thereby achieving their goals. Burt (1992) argued that some powerful entrepreneurs can use their influential powers to secure favourable negotiations for their members in a social group.

Fourthly, social capital is also beneficial to the entrepreneur through the existence of certain vital rules and norms within the membership. Both internal and external values such as trust, truthfulness gratitude, respect, friendship and network provide the entrepreneur with confidence and mandates obligation and reciprocity (Putnam, 2000; Adler and Kwon, 2002). Putnam (2000) suggested that social capital offers the individual an opportunity to resolve their differences among themselves in a much easier way through cooperation.

Fifthly, social capital also facilitates the establishment of start-up businesses through the concept of multiple ownership (Teach et al., 1986). Entrepreneurs with varying networks abilities are able to source relevant information to their advantage. Through social network ties entrepreneurs are exposed to new and different ideas, references and suggestions to potential business information and resources for their business formation and growth (Aldrich et al., 1998).

Sixthly, one other benefit of social capital to the entrepreneur is the solidarity element between members of the association or group. With a strong solidarity existing among the members, there is a high degree of compliance on the group's values, rules and norms by the members (Adler and Kwon, 2002). Also, the solidarity element of social capital allows entrepreneurs to have a quicker resolution of disputes, grievances and grudges, thus preventing its accumulation (Nelson, 1989). However,

social capital is not only beneficial to the entrepreneur; there are associated risks that the entrepreneur may encounter. The next section assesses the risks associated with social capital.

### **2.5.2 Risk of social capital**

One major risk associated with social capital is the element of overembeddedness of individual members in the group. As Powell and Smith-Doerr (1994 pp. 393) have stated “the ties that bind may also turn into ties that blinds”. This weakness is capable of reducing the flow of information and new ideas into the group, thus resulting in discrimination and inertia among members (Gargiulo and Bernassi, 1999).

Secondly, Portes (1998) has also noted that strong norms among social groups may influence the distribution of resources among extended relations, thereby reducing capital accumulation and discouraging entrepreneurial activities. Besides, the bonding of friendship and membership obligations among entrepreneurial groups may affect their decisions in identifying and exploiting business opportunities elsewhere even if the present contracts are not entirely beneficial (Uzzi, 1997).

Thirdly, the risk of social capital can also be found in the unethical behaviour and conspiracies of the membership of a social group (Brass et al., 1998). Members of a social group can be divided into factions with ideas, values, norms and rules pushed to the background. If this situation is allowed to continue, the group is likely to degenerate into multiple groupings, hence, group members are likely to miss the benefits of social capital (Foley and Edwards, 1996).

Lastly, a very high cost is involved in establishing and maintaining relationships among members. Social capital is therefore expensive and requires effort

and time to build and maintain. Thus, the task of building social capital becomes very complex if individual members have many contacts and these contacts themselves are also ties to other contacts. This will affect membership commitment and obligations (Hansen, 1998).

### **2.5.3 Dimensions of social capital**

Scholars have argued that social capital is multidimensional and occurs at both the individual and organisational levels (Nahapiet and Ghosal's, 1988; Yli-Renko, 1999; Lesser, 2000; Puhakka, 2002; Inkpen and Tsang, 2005). Although these three dimensions of social capital are not mutually exclusive, they could be interrelated (Liao and Welsch, 2003). To gain a clearer understanding of the dimensions of social capital, the chapter adopts the Nahapiet and Ghosal's (1988) three dimensions of social capital: Structure, Cognitive and Relational.

#### **2.5.3.1 Structural dimension**

The structural dimension of social capital refers to the pattern of connections, the presences or absence of social interaction ties between entrepreneurs. This social interaction through network ties, network configuration and network abilities create opportunities for social capital transactions (Nahapiet and Ghosal's, 1988; Yli-Renko, 1999; Puhakka, 2002; Adler and Kwon, 2002; Inkpen and Tsang, 2005). An entrepreneur's investment into the acquisition of relevant business information and the amount of time required to gather this information is greatly reduced by the entrepreneurial social relations (Nahapiet and Goshal, 1998; Cohen and Prusak, 2001; Davidsson and Honig, 2003) and network ties (Coleman, 1990; Greve and Salaff, 2003). Network ties create an opportunity for social capital transactions in which the

entrepreneur gains access to information, scarce resources and finance (Birley, 1985; Green and Brown, 1997, Uzzi, 1999; Adler and Kwon, 2002). On the other hand, where the network ties are unstable, entrepreneurs are likely to miss opportunities because some members of the social group may leave the network and thus break the social ties (Inkpen and Tsang, 2005).

Through social relations and network ties, banks are able to offer products and services to meet the varying needs of their customers across differential economic sectors and locations (Batjargal, 2003). This social interaction builds customer loyalty, dependence and durable lender-borrower relation and therefore facilitates easier access to bank credit and lower loan rates (Burt, 1992; Uzzi, 1999).

#### **2.5.3.2 Cognitive dimension**

The cognitive dimension of social capital refers to the resources that represents shared representations, shared understanding of common goals, interpretations and systems of meaning (Nahapiet and Ghoshal, 1998; Yli-Renko, 1999). This dimension involves the resources providing shared meaning and understanding of common goals and proper ways of acting such as shared languages, shared culture and codes. Among members of a particular network, shared language and conversation influences the exchange of ideas, norms, shared goals and culture (Nahapiet and Goshal, 1998; Cohen and Prusak, 2001).

The shared goals of members in a particular network are the degree to which the members have a collective understanding of issues, adopt similar methods or approaches in resolving the issues, performing the tasks, or overcoming the challenges. Shared culture on the other hand is the degree to which the pattern of behaviour directs the entire relationship (Inkpen and Tsang, 2005). Banks, through the

lender-borrower relationship have succeeded in creating the norms of credit discipline (Dowla, 2006). Using the norms of credit discipline, financial transparency and on timely repayment of loans, banks have established the norms against credit defaults, by requesting for collateral security in various forms and pursuing defaulters to every length to show them that credit is not charity. By these norms and culture, banks have reduced the problems of adverse selection and moral hazard.

### **2.5.3.3 Relational dimension**

The relational dimension of social capital refers to the behavioural assets such as trust and truthfulness (Yli-Renko, 1999; Kohtamaki, 2003), norms and sanctions (Coleman, 1988), obligations and expectations (Granovetter, 1985; Coleman, 1988; Burt, 1992) rooted in a relationship that influences the entrepreneur's behaviour. This dimension involves the nature of the personal relationship that develops between particular entrepreneurs such as weak or strong ties (Nahapiet and Ghoshal, 1998). The focus of the relational dimension of social capital is the particular relationship existing between members of a social group such as trust, respect, friendliness and trustfulness (Liao and Welsch, 2003).

Relational trust plays a key role in the lender-borrower relationship where both parties irrespective of their position, do expect a mutual benefit in their relationship (Saparito et al., 2004). Banks build trust for small businesses through the development of durable relationships overtime (Dunkelberg et al., 1984) and other interactions such as regular visits to the business premises of the borrower and constant business contacts to seek the welfare of the borrower (Yli-Renko et al., 2001; Dowla, 2006). The banks provision of services and advice to the borrower signifies an act of 'goodwill' and 'intimacy' on the part of the borrower (Das and Teng, 1998 pp. 505).

Borrowers also develop some confidence and trust in their banks through the interactions they receive from their bankers (Doz, 1996; Ring and Van de Ven, 1994) and the products and services the bank offers the borrower (Berlin and Mester, 1998; Binks and Ennew, 1997). Thus the relational trust between the bank and the entrepreneur is enhanced through the provision of bank services and the acceptance of these services by the entrepreneur.

The above review of social capital theory has demonstrated that entrepreneurs in possession of this capital have some advantages in terms of identification and exploitation of opportunities. Additionally, accessibility of resources and performance of the business is also enhanced with the possession of social capital resources. However, in spite of these advantages of social capital, some scholars have criticised the concept. The next section therefore reviews some of these criticisms.

#### **2.5.4 Criticisms of social capital**

The varying definitions put across in the social capital literature have not been without criticisms. The vagueness and inconsistency in the definition of social capital has been questioned (Portes, 1998; Dasgupta, 2000; Durlauf, 2000; Manski, 2000) with Arrow, (2000) advocating its abandonment. In recent times, scholars have questioned the ambiguity regarding the precise definition of social capital (Portes, 1998; Manski, 2000; Kadushin, 2004; Fischer, 2005). As a result of this ambiguity, Fischer (2005), has asserted that social capital is counterproductive because it's difficult to describe it as a capital.

The concept of social capital has been criticised as being too broad in that, it fails to provide a definite concept for any theoretical framework (Putzel, 1997). In spite of the numerous benefits associated with social capital, there is no clear cut

definition of social capital, and also there are too many different aspects, characteristics, indicators and dimensions of social capital making the concept of social capital difficult to understand (Van Deth, 2003). Similarly, Arrow (2000) argues for the concept of social capital to be abandoned. He asserted that capital has three forms; usage over time, investment of the present for future benefits, and alienability. Arrow (2000) argues that reputation and trust can be beneficial over time. However, a little trust is almost useless and therefore cannot be regarded as capital. The use of social capital has been associated with the entrepreneurial process. Social capital provides the entrepreneur with network facilities that provide business information, opportunity identification, entrepreneurial exploitation process, identification, collection and allocation of resources (Cohen and Prusak, 2001; Davidsson and Honig, 2003).

The availability and cost of credit to a small business entrepreneur is dependent on the degree to which the entrepreneur is socially attached to the external sources of finance. Previous studies have shown that the more socially attached entrepreneurs are to their banks the greater the pool of financial resource made available to them (Eccles and Crane, 1988; Baker, 1990). Credit availability is also dependent on the characteristics of the entrepreneur and the business as well as the social network ties existing between the entrepreneur and the bank (Uzzi, 1999; Biggs et al., 2002; Storey, 2004). The literature on trust have examined the role it plays in risk and uncertainty situations (Hohmann and Malieva, 2005; Nguyen et al., 2006). The next section therefore assesses trust and ascertains its importance in bank lending decisions.

### **2.5.5 Trust**

The usefulness of trust can be found in the role it plays in lubricating the inevitable frictions of social life (Putnam, 2000), in economic and financial transactions and the promotion of organisational forms (Uzzi, 1996; Gulati and Garguilo, 1999). A review of the literature reveals the existence of numerous definitions of trust (Zand, 1992; Ring and Van de Ven, 1992; Mayer et al., 1995; Boersma et al. 2003). There is however no single universally accepted definition of trust. Several definitions exist within disciplines (Hosmer, 1995; Welter and Smallbone, 2006). It is therefore important that for this exploratory study a definition of trust needs to be made.

In this study trust is defined as *the expectation that an entrepreneur can be relied on by the bank as having the requisite experience, capacity and reputation to perform rationally and competently, irrespective of the banks ability to monitor the entrepreneur in order to meet the repayment schedules and the loan contract agreement.*

#### **2.5.5.1 Dimensions of trust**

The dimensions of trust not surprisingly, have also been diverse and subject to much debate. Trust has been considered in terms of; personal trust (Williamson, 1993; Zucker, 1986; Chen and Barnes, 2007), institutional trust (Williamson, 1993; Raiser, 1999; Hudson, 2006), emerging trust (Zucker, 1986; Ring and Van den Ven, 1992; Kumar and Becerra-Fernandez, 2007), inherited (Granovetter, 1985, Coleman, 1988; Redding, 1990; Nguyen et al., 2005), calculus trust (Lewicki and Bunker, 1996; Lewicki et al., 2005), and unconditional trust (Jones and George, 1998; Howorth and Moro, 2006).



Personal trust can be described as a record of prior exchange, which develops on the initial knowledge of others from outcomes of previous transactions to provide reliable information for future transactions (Zucker, 1986). On the other hand, institutional trust is often embedded in acceptable conventional ways (Raiser, 1999) with benefits, consequences and sanctions upon failure going beyond the agreed parties (Putnam, 2000). Trust is said to be a complex concept (Kramer, 1999; Nooteboom, 2002). It is believed to emerge from a gradual process of a relationship, often evolving from repeated business transactions (Zucker, 1986; Ring and Van den Ven, 1992). However, other studies have noted that individuals can act in faith by trusting others without much knowledge about them (Luhmann, 1988; Craswell, 1993). On the other hand, trust is also described as being inherited from previous relationships and also from other third party referrals. (Granovetter, 1985; Coleman, 1988).

Calculus trust involves the systematic development and sustenance of a relationship which is built on repeated transactions (Lewicki and Bunker, 1996) and also depending on future behaviour (Jones and George, 1998), reliability and dependability (Lewicki et al., 2005). Where transactions between parties involve risks, sanctions are applied to serve as a deterrence or punishment (Barney and Hansen, 1994) rather than promising a reward or reputation (Dasgupta, 2000). Knowledge-based trust thrives on effective communication, reputation and reciprocity between two parties (Beugelsdijk, 2006). Unconditional trust evolves around ideas, values, desires, intentions and standards of behaviour (Jones and George, 1998; Lewicki and Bunker, 1996). Unconditional trust brings out cooperation and reciprocity (Powell, 1996). Even though unconditional trust is much easier to be built on common interest, agreements, desires and ideals (Doney et al., 1998), when the

shared values and norms are violated, it is very difficult to repair (Bies and Tripp, 1996; Burt and Knez, 1996; Dasgupta, 2000). Banks draw inferences from the account operations of entrepreneurs about their trust characteristics to determine their quality as a measure of reducing uncertainties associated with lending transaction (Coulter and Coulter, 2006). The next section examines the characteristics of trust.

#### **2.5.5.2 Characteristics of trust**

The strength and form of trust is affected by the degree of risk involved in the transaction (Mayer et al., 1995). For trust to be maintained and sustained in a transaction or relationship there is the need for both the trustor (bank) and trustee (entrepreneur) to assess their level of trustworthiness. This assessment is to be based on certain characteristics between the two parties. These include; reputation, similarity, ability, integrity, benevolence and communication.

Reputation is the information about an entrepreneur's past performance (Podolny, 1994), signifying the entrepreneur's ability to perform in future ventures (Blois, 1999). An entrepreneur's reputation is a characteristic of trust in a relationship which shows the entrepreneur's integrity and reliance (Pohle, 1995; Dasgupta, 2000). Acquisition is a gradual process accumulating over time, but can easily be destroyed upon failure to perform (Dasgupta, 1988) leading to a bad reputation (Ridley, 1995; Kitcher, 1993) which may result in liquidity constraints (Martinelli, 1997). Two individuals or groups of persons are more likely to develop trust between them if they have or share similar characteristics. These characteristics could be based on shared values and norms within a social group with similar language, culture, religion or institution (Creed and Miles, 1996; Lehmann and Neuberger, 2001).

Ability involves the knowledge and skills applied by an individual to influence a transaction or a performance in a particular situation (Mayer et al., 1995; Jones, 1996; Harrison et al., 1997; Bejou et al., 1998). In transactions involving risks, trust evolves from the ability or competence of the trustee to perform or honour an obligation (Butler, 1991; Rosen and Jerdec, 1977). Integrity is an act of consistency and an adherence to rules and regulation and agreements between parties (Howorth and Moro 2006). This characteristic is built from acts of consistency based on prior performance, reliable communication and the desire to repeat such performances in the future (Butler and Cantrel, 1984; Shaw, 1997; Velez, 2000).

Benevolence is said to be a characteristic of trust in that the trustor is believed to be willing to do good to the trustee (Mayer et al., 1995). Wintoro (2000) noted that benevolence in financial transactions occurs where both parties are willing to share knowledge, ideas for mutual benefits rather than self interest gains. The act of benevolence can be recognised in actions such as showing consideration and sensitivity to the needs of the others the avoidance of exploitation of others and seeking the welfare of members in a group (McAllister, 1995). For trust to be maintained and sustained between parties there must be a regular and effective communication. This communication must be for the exchange of knowledge, information and resources for mutual benefits (Bhati, 2006).

## **2.6 Conclusion**

This chapter has provided the theoretical background for the study. The main focus has been with the types of entrepreneurs and entrepreneurial activities, the role of human capital theory, social capital theory and the influence of trust in bank lending decisions. The chapter considered the various types of entrepreneurs, their

resources and how it impacts on their performance. Entrepreneurs possessing higher levels of education and prior ownership experiences exhibits comparative advantages in terms of information acquisition, opportunity identification and exploitation as well as access to finance compared to the inexperienced novice entrepreneur (Cooper et al., 1995; Shane, 2000).

The human capital theory asserts that the more the knowledge, talents and productive skills entrepreneurs possess the more their performance and earning potential (Thurow, 1970; Lochner and Monge-Naranjo, 2002). The human capital of the entrepreneur consists of the education, training, work experience and productive skills (Boxall and Steeneveld, 1999; Rauch et al., 2005). The theory also reveals that the ability of entrepreneurs to identify, exploit, pursue opportunities and acquire resources is dependent on the level of education, training and work experience of the entrepreneur (Starr and Bygrave, 1991; Weick, 1996). The theory also asserts that the possession of these human resources is necessary for higher performance and successes. However, these resources are not sufficiently enough to give the entrepreneur the maximum output. There is therefore the need for collaboration and networking between the entrepreneur and other organisations (Bourdieu, 1993; Coleman, 1990).

The social capital theory therefore provides these networking, values and norms. A social network between two parties ensures adequate information flows (Adler and Kwon, 2002) and also facilitates the acquisition of resources (Green and Brown, 1997; Uzzi, 1999). The theory therefore asserts that entrepreneurs involved in social ties benefit from elements of influence, control and power (Shane and Venkataraman, 2000). Shared norms, values and cultures represent shared responsibilities and goals (Nahapiet and Ghoshal, 1998; Cohen and Prusak, 2001). The

social ties and bond also develops trust, truthfulness and mutual respect for both parties (Liao and Welsch, 2003). Finally, the chapter examined the role of trust in bank lending decisions.

The next chapter examines the financing of small business entrepreneurs, capital structure, sources of start-up capital and the challenges associated with small business financing.

## **Chapter 3**

### **Financing Micro, Small and Medium-sized Enterprises**

#### **3.1 Introduction**

The previous chapter has examined the types of entrepreneurs, entrepreneurial activities, and the influence of human and social capital on these entrepreneurial activities. The issues of credit availability and accessibility to small businesses have generated considerable interest in recent times among scholars and policy makers. This is due to the important role small businesses played in economic development of many countries. Previous studies have shown that in most developing countries, small business entrepreneurs encounter major challenges when accessing external finance in support of their businesses to promote growth and development (Sowa et al., 1992; Levy, 1993; Parker et al., 1995; Abor and Biekpe, 2007b). There is also evidence that small business entrepreneurs in both developed and developing countries have experienced some difficulties in accessing credit from banks (Aryeetey et al., 1994; Levitsky and Prasad, 1987; Berger and Udell, 2002).

This chapter, financing micro, small and medium-size enterprises, will examine the issues associated with the capital structure of small business, the sources of finance for small business, the factors affecting the availability of and accessibility of bank credit to small business entrepreneurs, as well as the challenges banks encounter in making lending decisions. This chapter forms the background literature on small business financing for the study.

Depending on the growth stages of the small businesses, their financial requirement vary in size, frequency and maturity (Boomgard, 1989) and the sources of finance available to the small business changes overtime (Liedholm, 1989; 1991;

Nissanke and Aryeetey, 1998; Berger and Udell, 1998). The financing sources for the small business very often begins with the entrepreneur's personal savings, followed by gifts and loans from friends and relations (Findings Africa Region, 1994; Nissanke, 2001). As the business grows, other financing sources are sought including: banks' loans and overdrafts, co-investors, venture capitalists and lastly equity (Manigart and Struyf, 1997).

A number of factors have been identified as being the main obstacles to bank lending to small businesses. These include: a lack of entrepreneurial equity in the business, poor business information, unreliable financial data and vulnerability to market fluctuations (UNCTAD, 2001; Wagenvoort, 2003). Besides these, banks have also consistently referred to small business lending as a high risk venture in view of the high transaction costs involved in the processing of credit applications and the monitoring of credit offered (Steel, 1994; Wagenvoort, 2003; Tagoe et al., 2005), information asymmetry problems (von Eije et al., 2003), the lack of collateral to enforce repayment (Mambula, 2002; Sacerdoti, 2005). Banks are therefore reluctant in lending to small business entrepreneurs (Binks et al., 1992; Tucker and Lean, 2003). When raising finance in the formal financial market small businesses face market inequalities (Binks and Ennew, 1996; Beck and Demirguc-Kunt, 2006). These market inequalities are the results of information asymmetry that might occur between the lender and the small business (Stiglitz and Weiss, 1981; Greenwald et al., 1984).

The sources, choice and availability of finance for small businesses are a determining factor in the performance and contributions of small business to the economy of developing countries. The understanding of the financing preference of entrepreneurs of small businesses is essential as the choice of finance at varying stages of business growth affects the performance and contribution of small

businesses. Studies have shown that small businesses prefer to use internal sources of finance at the initial stages of establishment and supplement these sources with external finance at a later stage (Binks et al., 1992; Hughes, 1997; Berger and Udell, 1998). The next section of this chapter therefore reviews the capital structure of small businesses to determine their choice and preference for finance in their business life cycle.

The chapter is organised as follows. In the second section the capital structure of small businesses is presented. Section three outlines the capital structure of small businesses and start-ups. Section four discusses the determinants of capital structure of small businesses. Section five examines the sources of finance for the small business at start-up. Section six discusses the obstacles to bank lending to small business entrepreneurs and discusses the factors affecting the availability and accessibility of bank credit to the entrepreneur. Section seven concludes the chapter.

### **3.2 The capital structure of businesses**

A number of theories have emerged to explain the concept of business capital structure (Chittenden et al., 1996; Reid 2003). Modigliani and Miller (1958, 1963) initiated the discussions on capital structure and favoured the view that capital structure was irrelevant but later modified this view that debt financing alone was optimal. Subsequently, theories have emerged under the capital structure: agency, pecking order, market timing and trade-off theories. Within these theories, a number of factors or attributes are said to influence firm leverage. These include measures of firm value or size, growth, industry classification, the nature of the assets, taxation, and financial constraints, earning volatility, profitability, stock market conditions, debt market conditions and microeconomic factors (Frank and Goyal, 2003).



Studies of the financial structure of businesses typically revolve around the external sources of finance which are determined by the factors that affect the pricing and availability of the mix of debt and equity finance. The desire and readiness of the entrepreneur to pay the quoted price for the financial mix of debt and equity can also be a determining factor (Baldwin et al., 2002). The price and availability of external sources of finance for the small business is dependant on the perceived risk associated with the small business and in particular the start-up business. This perceived risk arises from the problems of information asymmetry (adverse selection and moral hazard) and transaction and monitoring costs associated with small business lending (Storey, 1994; Berger and Udell, 1998; Huyghebaert, 2003). These are likely to affect the cost and availability of credit (Huyghebaert, 2003; Kutsuna and Honjo, 2006; Huyghebaert and Gucht, 2007).

Studies have also shown that businesses in raising funds adopt different approaches including the agency approach (Jensen and Meckling, 1976; Binks et al., 1992), the pecking order theory (Myers, 1984, Myers and Majluf, 1984; Shyam-Sunder and Myers, 1999) or the financial growth cycle approach (Berger and Udell, 1998). The financial growth cycle approach contends that the firm's age, size and availability of information determines the capital structure adopted by the small businesses. These studies have been limited to established listed firms which depend on historical operating performance. Small businesses and in particular start-up businesses however are devoid of this dependency (Huyghebaert and Gucht, 2007).

The next section therefore examines the four theories of capital structure – the agency theory, the pecking order theory, the market timing and trade-off theory.

### **3.2.1 The agency theory**

The agency theory argues that under conditions of information asymmetries, self-interest and uncertainty, principals lack reasons to trust their agents and will therefore adopt measures to align the interest of agents to those of the principal (Shleifer and Vishny, 1989; Myers, 2001). The two agency problems arising from information asymmetries are adverse selection and moral hazard (Chittenden et al., 1996). Adverse selection is the condition under which the principal cannot ascertain if the agent accurately represents his/her ability to do the work for which he/she is being paid. Moral hazard on the other hand, is the condition under which the principal cannot be sure if the agent has put forth maximum effort (Eisenhardt, 1989).

Under conditions of adverse selection and moral hazard, fixed wage contracts cease to be the only means by which a relationship can be organised between banks and entrepreneurs (Jensen and Meckling, 1976). To ensure agents' cooperation principals may adopt measures such as: monitoring and rewards tied to an agent's performance (Eisenhardt, 1989; Chittenden et al., 1996). These measures are expected to reduce the problems of information asymmetries and agent opportunistic behaviour. The motives of agents are likely to differ from those of their principals. Factors such as financial rewards, labour market opportunities and other relationships outside the agent-principal relationship may influence the agent's motives.

### **3.2.2 The pecking order theory**

According to the pecking order theory, initiated by Myers (1984) and Myers and Majluf (1984) small businesses finance their investment in a hierarchical way. This implies that businesses will prioritise their sources of financing, first by preferring internal financing when available, followed by debt financing when the

internal financing is depleted and the equity financing as the last resort. Businesses therefore have three main sources of funding for investment: retained earnings, debt and equity. According to Myers (1984) capital structure has no optimal debt ratio and if there is, it is insignificant as compared to the cost of external financing. Entrepreneurs have more information about the prospects of the business than outside investors; hence, raising external finance is very costly (Baker and Wurgler, 2002).

Whilst retained earnings avoid all of the problems associated with adverse selection, debt has a minor adverse selection problem and equity on the other hand has serious adverse selection problems. Thus, in the mind of an investor, equity is considered riskier than debt; and, hence the investor will demand higher rates of return for equity investment than on debt (Myers and Majluf, 1984; Frank and Goyal, 2003). This preference is also due to the high cost and cumbersome nature of floating shares on the stock market and the possibility of under pricing the shares (Buckland and Davis, 1990). In addition to the above, small businesses will avoid the use of equity finance because share flotation requires a wider ownership which will mean entrepreneurs may lose control of their business to the new shareholders (Chittenden et al., 1996).

The ideas of the pecking order theory were refined into a testable prediction by Shyam-Sunder and Myers (1999). They noted that a large proportion of the financing deficits of businesses are made up of debts. Chirinko and Singha (2000) however, disagreed with Shyam-Sunder and Myers (1999) and have asserted that as funding requirements increase businesses move from a domain of internal finance to debt and then to equity; thus differentiating clearly the role of debt and equity in various regions. Frank and Goyal (2003) also disagreed with Shyam-Sunder and Myers (1999) on the choice of established companies and asserted that their results were

biased. They further asserted that small businesses are much more dependant on equity finance than they have suggested.

Chirinko and Singha (2000) posited that the pecking order theory is made up of two forms: strong and semi-strong. With the strong form, businesses finance their investments using internal funding and debt finance and do not issue equity. The semi-strong form however posits that businesses in this form issue equity. The pecking order theory does not ignore the issuance of new shares (Medeiros and Daher, 2004).

### **3.2.3 The market timing theory**

The theory of capital structure 'evolves as the cumulative outcome of past attempts to time the equity market' (Baker and Wurgler, 2002 pp: 27). There are basically two versions of market timing. The first version deals with entrepreneurs, investors and adverse selection costs which varies across businesses. Information asymmetry is reduced when businesses announce equity issues (Korajczyk et al., 1991). The second version involves irrational investors and time-varying mis-pricing. In this version when entrepreneurs believe the cost of equity is irrationally low, they will issue the equity. They only buy-back this equity when they believe the cost is irrationally high (Baker and Wurgler, 2002). In the survey by Graham and Harvey (2001 pp: 189) entrepreneurs have admitted to considering the importance attached to the 'amount by which their stocks are undervalued or overvalued'.

In making a financing choice for the business, an entrepreneur considers the current situation in both the debt and equity market and financing decisions are made based on the current condition which is more favourable to him or her. Where both debt and equity markets are unfavourable, the business is likely to defer fund raising.

However, where the current conditions are favourable, funds may be raised even when they are not needed (Frank and Goyal, 2003). The semi-strong form of market efficiency is not an assumption of the market timing theory. When the equity risk premium is negative it is assumed that equity issues are more costly than debt finance.

### **3.2.4 Trade-off theory**

Modigliani and Miller (1958) have shown that in perfect and efficient markets capital structure is irrelevant. In adding various imperfections, optimal capital structure is determined by the trade-off theory. The Trade-off Theory states that 'businesses decide for a certain capital structure and that they move towards it through time' (Medeiros and Daher, 2005 pp. 4). The trade-off theory argues that in building their capital structure, entrepreneurs take into consideration the costs and benefits of both debt and equity financing. The selection of a particular finance type, by an entrepreneur also involves a consideration of the balance between the dead-weight costs of bankruptcy and the tax saving benefits of debt (Kraus and Litzenberger, 1973; Frank and Goyal, 2005).

The theory further explains that businesses' choice to finance partly with debts and partly with equity is based on the advantages that accrue from each type of finance. However, questions have been raised about the empirical relevance of the trade-off theory. Miller, (1977) questioned why businesses are not having higher debt levels on their balance sheet if the trade-off theory was true. Fama and French (2002) also questioned the use of understated standard errors that leads to the clouding of inferences. The trade-off theory introduces taxation, cost of financial distress and agency costs but maintains the market efficiency and symmetric information assumption (Korajczyk and Levy, 2003; Baker and Wurgler, 2002). The theory

focuses on: (a) the trade-off between taxes and bankruptcy costs; (b) agency conflicts; and (c) stakeholders' co-investments (Frank and Goyal, 2003).

This section has examined the capital structure theories of businesses in general. The examinations of the theories reveal that entrepreneurs raise finance for their businesses taking into consideration the costs, benefits, availability and accessibility of the finance. The next section, therefore, examines the capital structure of small businesses and start-up businesses.

### **3.3 The capital structure of small businesses and start-ups**

The choice of a business' capital structure is dependent on the financing pattern (Myers, 1990), the debt-asset ratio (Rajan and Zingales, 1995) and the fixed assets of the small business (Heshmati, 2001). In explaining the relevance of the small business capital structure, three main costs are considered. These are: bankruptcy costs, agency costs and information asymmetry costs. According to Modigliani and Miller (1963), businesses increase their value through debt financing as interest payments are deducted from corporate tax. However, the probability of bankruptcy costs increases as debt finance increases and this may hinder the small business from accessing bank credit (Pettit and Singer, 1985).

As a result of imperfect information (Stiglitz and Weiss, 1981) and risk aversion, problems of agency costs arise. These problems are more prominent among small businesses (Chittenden et al., 1996). The conflicts between owners of businesses and financial intermediaries are the result of different information possession (Harris and Raviv, 1990). However, Norton (1991a) noted that bankruptcy costs, agency costs and information asymmetries have little or no influence on the capital structure decisions of small businesses. He asserted that small business

entrepreneurs finance their business's needs by following the hierarchical fashion of the pecking order theory.

The theories of capital structure has generally been focused on established businesses and more so to medium and large size businesses to the neglect of small businesses and to a large extent on start-up businesses. The determination of capital structure of a business is varied and this depends on the nature and type of the business under consideration (Harris and Raviv, 1991). The type of finance used by start-up businesses is dependant on the price and availability of internal and external finance sources (Huyghebaert and de Gucht, 2007). A number of empirical studies have shown that start-up businesses mainly use internal (informal) sources of finance as their principal source of capital and over time introduce external (formal) sources of finance to augment their expansion drive (Acs, 1985; Evans and Jovanovic, 1989; Aryeetey et al., 1994; Findings Africa Region, 1994; Manigart and Struyf, 1997; Hamilton and Fox, 1998; Hernandez-Trillo et al., 2005; Kutsuna and Honjo, 2006; Heino, 2006; Bhaird and Lucey, 2006).

The financial growth cycle approach contends that the firm's age, size and availability of information determines the capital structure adopted by the small business. These studies have been limited to established listed firms which depend on historical operating performance. Start-up businesses, however, are devoid of this dependency (Huyghebaert and Van de Gucht, 2007). The choice and size of finance utilised by the start-up business can be significantly influenced by the firm's size, asset structure, type of organisation, growth orientation and the characteristics of the owner (Cassar, 2004). The use of external finance by the start-up businesses is greatly impeded by the presence of adverse selection and moral hazard problems caused by their lack of a proven track record and prior business reputation (Huyghebaert, 2003;

Huyghebaert and Van de Gucht, 2007). Start-up businesses, therefore, choose to finance their financial needs from a pecking order approach: first, the owners' savings, gifts and loans from family, friends and business associates; second, there are short-term borrowing; third, there are long-term debt and equity as the least preferred option (Myers, 1984, Hamilton and Fox, 1998; Bhaird and Lucey, 2006).

Because of their lack of experience and no track record to show their potential, start-up businesses are very often seen as informationally opaque (Berger and Udell, 1998). As a result of asymmetric information and the lack of collateral, access to finance becomes a major constraint to the growth of small businesses (Binks and Ennew, 1996). Entrepreneurs at start-up thus, find it difficult to secure any start-up capital from external sources; and hence, their overwhelming dependence on internal sources (Huyghebaert, 2001). Berger and Udell (1998) argued that as a result of information asymmetry, asset structure, economies of scale and demand for finance, the financing alternatives available to small businesses vary throughout their financial life cycle.

The capital structure of a small business at any stage of the growth-cycle is a function of the characteristics of the entrepreneur, the business and the macroeconomic environment (Michaelas et al., 1999). The next section examines the determinants of the capital structure of small businesses.

### **3.4 Determinants of the capital structure of small businesses**

#### **3.4.1 Entrepreneur characteristics**

The strong desire by entrepreneurs to maintain business ownership and independence may influence the entrepreneur's financing decisions (Neubauer and



Lank, 1998). Hence, entrepreneurs with a desire to maintain ownership of their business will prefer using internal sources of capital (Dailey et al., 1997). Similarly, entrepreneurs with a strong desire to retain total control of their business may choose to reduce their use of external finance (Kotkin, 1984; Hutchinson, 1995; Poutziouris and Chittenden, 1996). The use of covenants to control entrepreneurs' access to external finance may influence their choice and capital structure decisions (Kotkin, 1984; Shrivastava and Grant, 1985). These factors may influence the entrepreneur's capital structure and financing decisions (Barton, 1989; Harvey and Evans, 1995).

Secondly, the level of education and work experiences of the entrepreneur provides the business with adequate human and social capital (Bates, 1997; Coleman and Cohn, 2000). Zingales (2000) noted that human capital plays a central role in the development of start-up businesses. Entrepreneurs with higher levels of education are more likely to source and use external finance (Coleman and Cohn, 2000). The age of the entrepreneur is more likely to influence the capital structure decision of the business (Romano et al., 2001). Older entrepreneurs would prefer the use of internal sources of capital to external sources (van der Wijst, 1989) in view of their risk adverse nature (Barton, 1989; Harvey and Evans, 1995).

### **3.4.2 Business characteristics**

The sources of capital for any business are largely dependant on the age of the business (Dollinger, 1995). Older businesses have the capacity to accumulate internally generated funds and are thus less likely to depend on external sources of capital to support their business operations (Hall et al., 2004). On the other hand, new and younger businesses may lack the internally generated capital and are more likely

to borrow from external sources to support their business operation (Berger and Udell, 1998).

Secondly, the asset composition of small businesses also influences the capital structure decisions of small business entrepreneurs (Titman and Wessels, 1988; Harris and Raviv, 1991). Small businesses in possession of greater tangible assets are able to use these assets as collateral security, to resolve the adverse selection and moral hazard problems associated with small business lending (Chan and Kanatas, 1985; Besanko and Thakor, 1987a).

Thirdly, profitable businesses have access to retained earnings from within the business and are therefore more likely to utilise this internal source of capital than to source for external capital (Myers, 1984; Van Auken and Carter, 1989; Cassar and Holmes, 2003). Even though profitable businesses have a better access to external sources of capital, studies have shown that they would prefer using internal sources of capital because it's cheaper and readily available. Business's profitability will therefore influence the entrepreneur's choice of finance (Jordan et al., 1998; Coleman and Cohn, 2000).

Fourthly, businesses experiencing higher growth potentials are likely to rely on external sources of capital ((Michaelas et al., 1999; Cassar and Holmes, 2003). This has a tendency to influence the capital structure decision of the business as the entrepreneur will seek to establish a lending relationship with their banks in anticipation of future borrowing (Cassar, 2004). Growth opportunities in small businesses exerts pressure on internally generated funds within a business and pushes entrepreneurs to look for external sources of capital to meet the growth requirements (Hall et al., 2004). However, Myers (1977) noted that growing businesses encounter some challenges in accessing external finance as their growth opportunities produces

moral hazard situations and this increases the risks associated with small business lending.

Fifthly, the financing decisions of businesses are largely influenced by the goals, objectives, and aspirations of the business (Barton and Gordon, 1987; Storey, 1994) as well as the legal form (Storey, 1994; Coleman and Cohn, 2000). Sixthly, other factors influencing the capital structure decision of small business entrepreneurs are the ratio of debtors to creditors and nature of business operations (Chittenden et al., 1996; Cassar, 2004), the state of the economy (Michaelas et al., 1996b), and the type of sector (Harris and Raviv, 1991).

Seventhly, smaller businesses face a major challenge in resolving the information asymmetry problems in view of the high costs involved in tackling these challenges, thus influencing their choice and access to external finance (Berger and Udell, 1998; Cassar and Holmes, 2003). Eighthly, the transaction costs for small businesses borrowing is higher compared to that of larger businesses and this influences their financing choice and use of external financing (Titman and Wessels, 1988; Wald, 1999).

The use of external finance by the start-up business is greatly impeded by the presence of adverse selection and moral hazard problems caused by their lack of proven track record and prior business reputation (Huyghebaert, 2003; Huyghebaert and Gucht, 2007). Small-sized and start-ups businesses, therefore, choose to finance their financial needs from a pecking order approach. A number of studies have examined the sources of capital used by small businesses (Norton, 1991a; Norton, 1991b; Harvey and Evans, 1995; Hutchison, 1995; Romano et al., 2001; Cassar, 2004). In the light of the above discussions, the next section reviews the various

sources of finance available to entrepreneurs of small businesses including start-up businesses.

### **3.5 Sources of finance for small businesses**

Finance plays a significant role in the development of small businesses (Davila et al., 2003; Cassar, 2004). However, compared to large businesses, small businesses have encountered limited access to financial resources at every stage of their development (Walker, 1989) as a result of challenges they encounter (Holtz-Eakin et al., 1994; Rajan and Zingales, 1995). These difficulties have hindered their growth and development, and hence their contribution to economic development of nations (Levy, 1993). An analysis of the financial structure of small businesses has revealed that small business entrepreneurs depend on internal sources of capital including personal savings and retained earnings in financing their small business start-up (Weston and Brigham, 1981; Johns et al., 1989; Thompson Lighthouse et al., 1996; Kotey, 1999; Ou and Haynes, 2003; Hernandez-Trillo et al., 2005; Kutsuna and Honjo, 2006; Heino, 2006; Bhaird and Lucey, 2006). In later stages, as the business expands, entrepreneurs rely on external sources of capital such as debts from formal financial institutions and lastly to non-bank financial institutions (Vos et al., 2007). As the business increases in age and size they acquire assets to collateralise loans, develop proper management of business information and track record to seek external sources of finance (Berger and Udell, 1998, Gregory et al., 2005).

Depending on the growth stages, the financial requirement of the small businesses vary in size, frequency and maturity (Boomgard, 1989) and the sources of finance available to the small business also change overtime (Liedholm, 1989; 1991; Nissanke and Aryeetey, 1998; Berger and Udell, 1998). The next sections now

examine the internal and external sources of finance available to the small business entrepreneur and the types available within each source.

### **3.5.1 Internal sources**

#### **3.5.1.1 Personal (own) savings and retained earnings**

Personal saving is that part of personal income left over after payment of taxes and interest, personal consumption expenditures and net transfers. Personal savings are the contributions an entrepreneur accumulates to reinvest in the business for working capital, fixed assets and for raw materials purchase. Personal savings of the entrepreneur are a major source of finance for most start-up businesses (Acs, 1985).

In many instances, entrepreneurs have sold or integrated their personal assets directly into starting or growing their businesses (Van Auken and Neeley, 1996), or have used their homes as offices or factories at the start of business (Landstrom and Winborg, 1997). Others have forgone taking personal salaries at the initial stages depending on salaries from other sources such as formal employment (Winborg and Landstrom, 2001), or spouse (DeLuca, 1998).

Profits from a business can be used by the entrepreneur for the payment of dividends or can be reinvested into the business. Where these profits are retained and reinvested into the business, they are referred to as retained earnings. Retained earnings are profits of a business left after taxes and dividend are removed (Walker, 1989). Small businesses encounter severe liquidity constraints and are very unlikely to make dividend payments (Evans and Jovanovic, 1989). Even though entrepreneurs reinvest their retained earnings into their businesses, priority is given first to financing working capital to make more profit before investing for the purposes of expansion of

business capacity (Nissanke, 2001). As businesses expands the demand for additional financing increases. The search for additional finance normally begins with loans and gifts from friends and relations, before this is then supplemented by supplier's credit and customer advances.

### **3.5.1.2 Friends and relatives**

Entrepreneurs have benefited from the social connections between them and their relatives and friends. Gifts, loans and the guaranteeing of institutional loans have been part of the internal sources of start-up capital for most entrepreneurs (Fraser, 1999). Loans from family and friends are different from bank loans in that they are significantly small in nature, short-term and have low or no interest rates, in return for some benefits later (Basu and Parker, 2001). Loans from family and friends are offered without screening because informal lenders are assumed to be in possession of private information about the entrepreneur which is normally not available to formal lenders (Casson, 2003; Hernandez-Trillo et al., 2005).

### **3.5.2 Entrepreneurship and sources of start-up capital**

In this section the types of start-up capital used by the entrepreneur are examined. The availability and cost of finance affects the performance of the entrepreneur. Limited access to finance retards the entrepreneurial activity (Holtz-Eakin and Rosen, 1999), impedes start-up process and retards growth and development of start-ups enterprises (Evans and Jovanovic, 1989; Schreiner and Woller, 2003). Again entrepreneurs facing limited access to start-up capital may be forced to utilise their savings and assets (Jalan and Ravallion, 1999).

Entrepreneurs in their attempt to raise external capital are confronted with a number of challenges such as developing their business concept, identifying potential sources of start-up capital, high monitoring costs, bonding costs and interest rate (Landstrom, 1992; Holtz-Eakin et al., 1994; Rajan and Zingales, 1995). These challenges are the results of a lack of information about financing sources (Gibson, 1992), problems of information asymmetry and transaction costs encountered when accessing the finance (Watson and Wilson, 2002; Cassar, 2004; Ebben and Johnson, 2006) and the inability of small businesses to provide relevant business information to the lender (Carpenter and Petersen, 2002). As a result, banks view start-up businesses as risky businesses to finance and therefore charge a higher interest rate, increase collateral requirement or offer reduced amount or decline the application all together (Levenson and Willard, 2000; Shane and Cable, 2002).

A major factor in the choice of an entrepreneur's start-up capital, the type and amount of finance used is influenced by the entrepreneur's background and business ownership experience (Westhead et al., 2003b; Westhead et al., 2005b). The use of debt and equity in the financing decision of start-up businesses has implications for the business' performance, business expansion and future cash flow. The financing decision of the entrepreneur is also influenced by the entrepreneur's characteristics (age, education, work experience, sex), risk tolerance, business characteristics (age, growth, location, sector, size, innovation, exporting) and managerial skills and preferences (Barton and Mathews, 1989, Gibson, 1992; Petty and Bygrave, 1993; Monroy and Folger, 1993; Cressy, 1996; Kuratko et al., 1997). Novice entrepreneurs are more likely to depend on internal sources of finance in view of their perceived risk nature compared to habitual entrepreneurs (Winborg and Landstorm, 2001; Carter and Van Auken, 2005). Habitual entrepreneurs by virtue of their business ownership

experience and track record are more likely to depend on external sources of finance (Cressy, 1995) compared to novice entrepreneurs who lack the requisite business experience.

### **3.5.2.1 Entrepreneurship and internal sources of start-up capital**

At start-up, entrepreneurial and business characteristics of a small business have a significant influence on the ability, type and amount of start-up capital the small business is able to raise (Thorne, 1989; Van Auken and Neeley, 1997). The challenges entrepreneurs encounter in raising start-up capital may lead to illiquidity and cash flow constraints at the start of a new venture. This further implies that entrepreneurs will have to abandon market opportunities; they will be unable to meet market demands and supplier requirements, encounter limited growth potentials and eventually die (Storey, 1994; Van Auken, 2001 pp. 243). Bechetti and Trovato (2002) observed that the challenges entrepreneurs encounter in raising finance prohibit the growth potential of the small business. Similarly, both Cooper et al., (1994) and Davila et al., (2003) have emphasised that the inability of the entrepreneur to raise adequate start-up capital from external sources effects the growth and survival of the small business. Even in situations where entrepreneurs are able to raise external capital, the high interest rates payment on these finances puts constant pressure on the already dwindling cash flows of the small business. This will eventually impact negatively on the business' performance which will again impede their chances of raising external finance (Marlow and Patton, 2005).

In view of the challenges entrepreneurs encounter in raising start-up capital from external (formal) sources, it is both essential and preferable for entrepreneurs to consider internal (informal) sources. Hence in raising start-up capital, the entrepreneur



will consider internal sources first and later seek external sources such as debt and equity (Carpenter and Petersen, 2002). This financing choice therefore coincides with the pecking order model of finance proposed by (Myers, 1984). It is expected in this study therefore that experienced entrepreneurs with proven track records, business reputation and collateral will report a lower usage of internal sources of start-up capital compared with inexperienced entrepreneurs at the start of their new ventures (Westhead et al., 2003b). From the above discussion, the following hypothesis can be derived:

**H<sub>1</sub>:** Experienced entrepreneurs will report a lower level usage of internal sources of start-up capital than novice entrepreneurs at the start of a new venture.

At the formation stage of the business the capital requirement for the small business is modest with the main sources coming from internal sources - the entrepreneur's personal savings, gifts and loans from friends and relations (Findings Africa Region, 1994; Nissanke, 2001). As the business grows, other financing sources are sought including banks loans and overdrafts, venture capitalists and lastly equity (Manigart and Struyf, 1997).

As the business expands and the business experiences increased demand for its goods and services, its cost of production and services also increases. The business' financial requirements will also increase and this puts pressure on the internally generated sources of capital. In an attempt to resolve this, the entrepreneur seeks financial support from external sources both debt and equity to meet this additional requirement. The next section examines the various types of external sources of finance available to the entrepreneur.

### **3.5.3 External sources**

#### **3.5.3.1 Co-investors (Business Angels)**

Co-investors (Business Angels) are high net worth individuals with either managerial or entrepreneurial skills who invest their capital, knowledge and time in small and young business ventures (Freear et al., 2002; Brettel, 2003; Stedler and Peters, 2003; Kollmann, 2004) in return for a proportion of the company equity (Berger and Udell, 1998; Aernoudt, 1999). Co-investors are individuals who invest in businesses looking for a higher return than they would see from more traditional investments (Brander et al., 2002). Co-investors play an important role in providing financial support for business start-ups (Wetzel, 1981; Harrison and Mason, 1996) and high risks and high return ventures (Seymour and Wetzel, 1981; Tashiro, 1999).

Co-investors are successful entrepreneurs with entrepreneurial and managerial experience who want to help other entrepreneurs get their business off the ground (Aram, 1989; Aernoudt, 1999). They take a high personal risk in the expectation of owning part of a growing and successful business (Freear and Wetzel, 1990) and occasionally syndicate their investments with other co-investors where necessary to acquire risk reduce information (Kelley and Hay, 2000). In addition to finance, co-investors also offer expertise (Brettel, 2003), managerial experience (Stedler and Peters, 2003) and personal contacts and networking (Mason and Harrison, 1996; Brettel, 2002). Co-investors by acting as non-executive directors can add value to the venture through monitoring and consulting (Bhide, 2000), by sharing expertise, entrepreneurial skills and technical know-how (Gifford, 1997; Lau, 1999; Harrison and Mason, 2000).

### **3.5.3.2 Supplier's (Trade) credits and customer advances**

Supplier's credit exists when one business provides goods or services to a customer (entrepreneur) which does not require immediate payment, or receive a shipment or service from a supplier under an agreement to pay them later (Elliehausen and Wolken, 1993; Cuñat, 2007). Supplier's credit may provide access to capital for businesses that are unable to raise it through more traditional channels. It is an important source of short-term external finance for businesses (Rajan and Zingales, 1995). Asymmetric information between banks and small businesses can preclude financing of valuable projects. Supplier's credit can alleviate this problem by incorporating in the lending relation the private information held by suppliers about their customers (Burkhart and Ellingsen, 2004).

Businesses without relationships with banks resort more to supplier's credit, and sellers with greater ability to generate cash flows provide more trade credit (Petersen and Rajan, 1997). Similarly, businesses which are less likely to be bank credit constrained tend to rely less on supplier's credit. On the other hand, small businesses which are more likely to be credit rationed tend to rely more on trade credit. Sellers, by the nature of their relationships with the small businesses have an information advantage over banks and are therefore able to ensure repayment better than banks do (Mateut et al., 2006). By offering supplier's credit, a seller can identify a prospective default more quickly than if financial institutions were the sole providers of short-term financing. Supplier's credit is extended on a more regular basis to small businesses with good track records of payment at no cost and with little documentations (Walker, 1985).

Customer advances on the other hand is that advance payment made by a customer to a supplier or producer of goods or provider of services in anticipation of

future supply of goods and services. Customer advances may serve as a source of finance for a start-up business as the advance payment may be used in financing working capital for other businesses far in advance of the anticipated supply date for the actual customer who made the payment (Nissanke, 2001). Customer advances may be in the form of licenses or royalties, advance payments made on purchases or on service contracts (Freear et al., 1995; Fraser, 2001), and letters of credit for foreign transactions (Stevenson et al., 1985).

### **3.5.3.3 Bank credit (overdrafts and loans)**

Bank credit, as the term used in this study consists of bank loans and bank overdrafts extended to entrepreneurs (Phillips and Bruchey, 1981). In developing countries where the financial and capital markets are underdeveloped, bank financing plays an important role in small business growth and development (Galindo and Schiantarelli, 2002). Entrepreneur activities are retarded by limited access to bank credit (Holtz-Eakin and Rosen, 1999). Borrowing from the banks is therefore an important source of finance to many small business entrepreneurs (Brewer et al., 1996). Biggs et al. (2002) noted that the size of a business, possession of a collateral security and proven track record are important determinants to small business entrepreneur's access to bank loans and overdrafts. Avery et al. (1998) also noted that bank loans to small business entrepreneurs are personally guaranteed by the entrepreneurs.

Banks cite reasons such as the poor quality of financial information, a lack of collateral, no proven track records and poor repayment abilities to ration credit to small business entrepreneurs (Stephanou and Rodriguez, 2008). Similarly, the high cost of gathering information about a business affects banks screening activities which

also affects bank lending to small business entrepreneurs (Dell'Arricia and Marquez, 2004; Sengupta, 2007). Small business entrepreneurs can help in reducing information asymmetry problems and hence, financing constraints by sharing information with their banks and also documenting all their business transactions (Jappelli and Pagano, 2001). Banks resolve these challenges by requesting for collateral from the entrepreneur to support the credit application (Keasey and Watson, 2000; Levenson and Willard, 2000) and also through the building of a durable relationship with the small business (Cole, 1998; Machauer and Weber, 2000).

#### **3.5.3.4 Venture capital**

Venture capital involves the combination of equity participation and active involvement in the management and development of a venture (Kunze, 1990). Venture capital is also the financing of independently owned businesses in the form of equity and serves as a conduit between the investors and the entrepreneur (Schilit, 1991; Brander et al., 2002). Venture capital financing occurs in varying states of venture development. These include: seed investment, start-up financing, early-stage financing, expansion financing, later stage financing and special purpose financing (Brander et al., 2002; EVCA, 2004). The investment process of venture capital include; deal generations, screening of enterprises, valuation of assets, structuring of the deal, monitoring of the investments and exit from the investment (Timmons and Sapienza, 1992; Fried and Hisrich, 1988; Wright and Robbie, 1998).

Similarly, the mode of financing by venture capitalists involves active management participation in the ventures being financed, the use of experience, contacts and reputation to support entrepreneurs (Gorman and Sahlman, 1989; Kaplan and Strömberg, 2001). It also involves the investment of capital at varying stages of

the business according to need (Gompers, 1995) and relies on equity as security for the investments (Sahlman, 1990; Gompers, 1997). The investments of venture capitalists play an important role through their capital infusion, managerial expertise and networking and contribute significantly to employment generation, innovation, and economic growth of the economy (Mason and Harrison, 1999).

#### **3.5.4 Entrepreneurship and external sources of start-up capital**

The experienced entrepreneurs by virtue of their cumulative business experience may have generated a set of resources which places them in a better position to gain credit than the novice entrepreneurs for whom the business process of setting up and applying for their own businesses' credit is a comparatively new process (Wright et al., 1997a). In other words, the experienced entrepreneurs are able to establish more resources to attain and then sustain resources and capabilities (Barney, 1991; Penrose, 1959) than the novice entrepreneurs, and this translates into the entrepreneurs being in a better position than novice entrepreneurs to successfully gain the external credit which they are seeking (Cressy, 1995; Westhead et al., 2004).

Entrepreneurs who possess substantial business ownership experience and successful track records are expected to have made adequate personal savings, and with greater reputations, have better access to external sources of funds than the inexperienced novice entrepreneurs. Additionally, entrepreneurs rely on their networking abilities and availability of collateral in accessing funds from external sources including co-investors, supplier's credit, customer advance (bootstrap financing). Entrepreneurs with higher levels of human capital have less binding constraints in business start-ups. Financial institutions may perceive entrepreneurs with proven track records as being more credible than those having failed in their

initial venture. The expectations from the above discussions is that experienced entrepreneurs with proven track records and business reputations and collateral to report a higher level of use of external sources of start-up capital including co-investors. From the above discussion, the following hypothesis can be derived:

**H<sub>2</sub>:** Experienced entrepreneurs are more likely to report a higher level usage of external sources of start-up capital than inexperienced novice entrepreneurs at the start of a new venture.

Education can be an important source of knowledge, skills, problem-solving ability, discipline, motivation and self-confidence (Cooper et al., 1994). Highly educated entrepreneurs do have their expectations raised and enhanced problem-solving skills. It is argued that education provides the basis for the acquisition of the required skills for business development and success. Storey (1994 pp. 129) noted that 'education is a key constituent of the human capital needed for business successes'.

The level of education which is an attribute of the general human capital resource of the entrepreneur was included in the model. It is expected that entrepreneurs with university degrees are more likely to report a lower usage of internal sources of capital but rather a higher usage of external sources of start-up capital due to their networking ability. From the above discussion, the following hypothesis can be derived:

**H<sub>3</sub>:** Entrepreneurs with a higher level of education are more likely to report a lower usage of internal sources of start-up capital.

Access to finance for innovation has remained a challenge to small businesses in many developing countries because banks perceive an innovative project to be too costly and too risky to finance (Hall, 1989). Access to finance for innovative activities is even worse where peripheral location is considered as most banks and venture capitalists are located in conurbations and large towns (Martin et al., 2003; Mason and Harrison, 2002). The selectivity of financing innovative projects is also pronounced in regards to business size, as banks consider small business innovation projects as too risky (Mason and Harrison, 1994). Entrepreneurs engaged in process innovation are expected to rely on external sources of start-up capital to finance their new technology, new equipment, plants and machinery and improved raw material (Freel, 2000). From the above discussion, the following hypothesis can be derived:

**H<sub>4</sub>:** Entrepreneurs who introduced a process innovation are more likely to report a higher usage of external sources of start-up capital.

The main sources of credit for Ghanaian exporters include personal savings, retained earnings, friends and relations, supplier's credit, advance payments, export financing schemes, and formal financial institutions (Ghana Export Promotion Council, 1986 pp. 2-3). Businesses engaged in exporting activities require additional finance beyond the owner's savings and retained profit (Buasti, 2002). It is therefore expected that entrepreneurs engaged in exporting activity will rely more on external sources of start-up capital – including the co-investors and suppliers credit, rather than on using personal savings and other internal sources of start-up capital. The exporting activities of entrepreneurs are expected to influence the source of start-up capital. From the above discussion, the following hypothesis can be derived:



**H<sub>5</sub>:** Entrepreneurs engaged in exporting activities are more likely to report a higher usage of external sources of start-up capital.

### **3.6 Obstacles to bank lending to small business entrepreneurs**

When raising finance in the formal financial market small business entrepreneurs face market inequalities (Binks and Ennew, 1996; Beck and Demirguc-Kunt, 2006). These market inequalities are the result of information asymmetry that might occur between the lender and the small business entrepreneur (Stiglitz and Weiss, 1981; Greenwald et al., 1984). This information asymmetry problem is likely to lead to credit rationing (Stiglitz and Weiss, 1981; Zeller, 1994; Das, 2004).

To resolve this situation, the bank will introduce screening devices to sort out high risk and low risk entrepreneurs. However, the high costs associated with screening and monitoring makes this activity unattractive to the banks. Hence, banks may charge higher interest rates to compensate for the screening activity (Tucker and Lean, 2001; Malhotra et al., 2006). This high interest rate also has the tendency of discouraging low risk entrepreneurs from seeking credit and will leave the credit market allowing only high risk entrepreneurs to remain. This will lower the bank's expected return and thus increase its risk (Hallberg, 2000).

Other factors identified as being major obstacles to bank lending to small business entrepreneurs include: a lack of entrepreneurial equity in the business, high credit risk, poor business information, unreliable financial data, unavailability of collateral, and vulnerability to market fluctuations (UNCTAD, 2001; Wagenvoort, 2003). Besides these, additional factors such as a lack of a significant credit history, inadequate equity capital on the balance sheet, limited market power and the lack of management skills affects the risk profile of the entrepreneur (Abereijo and Fayomi,

2005). Moreover, the entrepreneurial characteristics such as level of education, prior ownership experience, and the wealth of the individual or family resources will play a significant role in the entrepreneur's access to credit (Cavalluzo, 1999). Bates (1991) has noted that commercial banks have lending preferences for small business entrepreneurs with higher human and social capital, higher profitability and a viable market associated with business viability.

To avoid the above scenarios banks will request for collateral to enable them to sort out high risk and low risk entrepreneurs (Cowling and Mitchell, 2003) or reject the application outright (Malhotra et al., 2006; Inderst and Muller, 2007). This action of the bank will lead to adverse selection - that is 'honest' entrepreneurs reject the loan offer and exit the credit market leaving the lender with a higher risk portfolio (Jaffee and Russell, 1976). On the other hand 'dishonest' entrepreneurs will prefer a higher risk project with an increased interest rate than a lower risk project. The failure of the small business to perform to meet the required standard and the inability of the bank to effectively monitor the project will lead to the problem of moral hazard (Stiglitz and Weiss, 1981). This is likely to decrease the expected return for the bank. The use of collateral is therefore seen as a measure by the lender to insure against credit default and also to ensure the entrepreneur's quality and repayment capability (Chan and Kanatas, 1985; Bester, 1985; Besanko and Thakor, 1987; Cowling and Westhead, 1996). The use of collateral is inevitable in credit contacts as this is positively related to the observably riskier entrepreneurs (Stiglitz and Weiss, 1981) and banks very often base their collateral requirements on the perceived risk (Berger and Udell, 1990) which will not only hinder access to credit (Cowling and Westhead, 1996) but, credit will actually not be granted if the entrepreneur fails to provide collateral (Manove et al., 2001). Additionally, collateral usage depicts the quality of

the entrepreneur which is positively related to the value of the collateral offered (Chan and Kanatas, 1985). In a lender-borrower relationship, the presence of the above challenges and the inability of the entrepreneur to provide collateral security may lead to the lender either rationing credit or rejecting the credit application outright (Bester, 1987; Binks and Ennew, 1996; Voordeckers and Steijvers, 2006). The next sections examine the factors affecting the availability and accessibility of bank credit to small business entrepreneurs.

### **3.6.1 Factors affecting the availability of bank credit to small business entrepreneurs**

The ability of entrepreneurs to access finance is positively correlated to the availability of a well-structured financial market and the economic climate which is able to link up these entrepreneurs to the suitable lenders who are willing to finance their business activities (Observatory of European SME, 2003; Malhotra et al., 2006). Additionally, the capability and willingness of banks to lend to entrepreneurs is dependant on the viability of the financial institutions structures and the lending infrastructure in which both the bank and the entrepreneurs operate (Berger and Udell, 2002).

The attitude of most banks towards lending to entrepreneurs especially in developing countries as a result of the perceived risk and high transaction costs of lending to these entrepreneurs led to the discovery of a 'credit crunch' in most developing countries (Atieno, 2001; van Eeden et al., 2003; Ogujiuba et al., 2004; and Okurut et al., 2005). Very often, this lack of lending is not due to the lack of funds to lend by the banks, but rather an evidence of a more cautious lending approach as a consequence of higher bank profitability requirements. Banks do compete intensively for investors (shareholders) who are expectant of a higher return for their investments.

Thus, in order to prove their efficiency and favourable rating, banks adopting a shareholder value culture, will therefore lend to the entrepreneur with a low risk attitude and a higher profitability returns (European Commission, 2003).

Commercial bank loans are mostly short-term (within a year) and often limited to the urban areas if not the capital cities (UNCTAD, 1995). Besides, their financing activities are concentrated on established large enterprises and creditworthy entrepreneurs (Webster, 1991). In view of these developments, the banks are reluctant to consider small business and particularly entrepreneurs in the agricultural sector, rural areas and start-ups which they consider highly risky (Webster, 1991; Levy, 1993; UNCTAD, 1995; Asian Development Bank, 2003). The availability of bank credit to entrepreneurs is largely influenced by the following factors: - the costs of capital, the costs associated with enforcement and bankruptcy, the financing of government deficits, competition from state-owned enterprises, the bank-entrepreneur relationship and the geographical distance between the entrepreneur and the bank. This section now examines in details these factors and their effect on credit availability to the entrepreneur.

#### **3.6.1.1 The costs of capital**

The cost of capital is a major determining factor in the accessibility of bank credit by entrepreneurs and small businesses. Banks set their interest rates based on the average cost of funds, market competition and transaction costs (Aryeetey et al., 1994). Additionally, banks take into account in setting the interest rate the sector in which the business operates, the collateral offered, the previous experience of the borrower and the track record of the business (Monge-Naranjo et al., 2001). External finance tends to be more expensive for small businesses than for larger businesses

because the fixed costs of lending are not proportional to the size of the loan (Wagenvoort, 2003c). This price differential is largely caused by the perceived risk profile of the entrepreneur by the banks (European Commission, 2003). Banks therefore tend to charge a commission on this perceived risk and apply rigid screening measures to increase the costs of capital to the small business (Abereijo and Fayomi, 2005).

#### **3.6.1.2 Enforcement and bankruptcy costs**

In almost all bank lending there is the probability of default. However, the default rate is normally high with small businesses and in particular amongst novice entrepreneurs compared to habitual entrepreneurs (Westhead et al., 2003). Thus, banks tend to secure their lending with collateral security. In a case of a default by an entrepreneur, a bank will file for bankruptcy in order to execute the guarantee. In situations where the judicial system is imperfect with numerous delays and adjournments, the lender will have to wait for a long period to receive judgement and execute the guarantee for repayment of the loan. In view of this imperfect enforcement of contracts, bank will prefer to limit an entrepreneur's leverage in order to improve its incentives and increase its probability of repayments. Therefore, the bank will deliberately impose credit constraints on the small business.

#### **3.6.1.3 Financing government deficits**

Another determining factor of the availability of bank credit to entrepreneurs is the financing of government budget deficits. Banks in many developing countries find it easier, convenient, less risky and more profitable to finance government deficits (Levitsky, 1997). Financing a government deficit is considered to be a safe

investment of banks deposit and to provide higher returns on this investment. This practice will eventually increase the lending rates and reduce the amount of funds available for on ward lending to small businesses (Sacerdoti, 2005; Aberreijo and Fayomi, 2005).

#### **3.6.1.4 Competition from state-owned enterprises**

Furthermore, competition from State-Owned Enterprises affects the availability of bank credit to small businesses. State-Owned Enterprises have relatively easy access to bank finance because there is the belief that the state is unlikely to default and normally large amounts in one credit transaction is more profitable to the bank in terms of transaction costs and monitoring than lending to numerous entrepreneurs in different locations with different projects and different entrepreneurial ideas and behaviours. Banks are therefore willing to lend to State-Owned Enterprises at the expense of small businesses. Although in many cases, the interest rates are below the market rate for small businesses, the large volume of credit transaction compensates the reduction in interest rates (World Bank, 2004b).

#### **3.6.1.5 Government policies on loan pricing and lending directives**

Government policies on interest rates and lending most often affect the availability of bank credit to small businesses negatively than positively. The capping of interest rates by monetary authorities have the tendency of discouraging banks from lending to perceived high risk small businesses (Aryeeyey et al., 1994). Again, the directives by government for banks to lend to a particular sector also have the tendency of reducing bank lending to small businesses.

### **3.6.1.6 Bank - entrepreneur relationship**

A bank-entrepreneur relationship it is argued ensures the availability and transparency of information between banks and entrepreneurs. This is useful in combating the problems of information asymmetry. A durable and efficient relationship will therefore be beneficial to both the bank and the entrepreneur. The bank receives adequate and reliable information on the entrepreneur's quality thereby reducing information asymmetry and this reduces credit rationing of the entrepreneur (Angelini et al., 1998).

The entrepreneur on the other hand enjoys a lower lending rate, a reduced collateral requirement and an improved credit availability (Diamond, 1991; Petersen and Rajan, 1994; Boot and Thakor, 1994; Petersen and Rajan, 1995; Berger and Udell, 1995; Elyasiani and Goldberg, 2004; Bodt et al., 2005) and is therefore not credit constrained (Hoshi et al., 1990a). In contrast to this view, other researchers have found that the price of credit increases as the banking relationship matures (Greenbaum et al., 1989; Sharpe, 1990; and Wilson, 1993). It is argued that in the bank-entrepreneur relationship banks initially subsidise the credit price and are reimbursed later when the banking relationship matures. Lehmann and Neuberger (2001) find that loan rates do not depend on the duration of the banking relationship.

A bank has the advantage of using the patronage of its products and services to determine the entrepreneur's quality. By monitoring its customer's use of these services, the bank is able to generate additional information on the entrepreneur's financial position (Cole, 1998). The dependence of a bank's financial services by the entrepreneurs determines the availability of credit for the entrepreneur. Entrepreneurs can reduce their credit constraints and increase credit availability by building a durable relationship with their banks which will help overcome the asymmetric

information problems. Lower quality entrepreneurs have to look around for a source for credit from multiple sources. Thus, banks will be reluctant in extending credit to entrepreneurs with multiple sources of bank credit. Entrepreneurs with multiple sources of banks credit are charged higher interest rates (Petersen and Rajan, 1994).

### **3.6.1.7 Distance between business and bank**

Geographical distance between banks and entrepreneurs is a determining factor in the bank lending decision stressing the importance of distance in the availability and pricing of bank loans (Alessandrini et al., 2006). When banks are unable to observe businesses' locations or are debarred from pricing loans differently to different entrepreneurs, the loan will be priced uniformly. On the other hand, if banks are able to observe the entrepreneur's location and price the loan based on this knowledge, then the bank will be practicing spatial price discrimination. In bank lending - especially to small businesses, distance plays a major role in determining whether a bank will lend or not in a community (Degryse and Ongena, 2005; Brevoort and Hannan, 2006).

With an increase in competition banks are forced to concentrate their lending on small businesses within their community. With the advent of improved communication technology and the use of computing and technology to increase the availability and timeliness of hard information, banks are now able to lend more to businesses located in distant areas without making poorer decisions (Petersen and Rajan, 2002). However, the probability of loan default by small businesses is likely to increase with the lender-borrower distance (DeYoung et al., 2008b). Distance is also a determining factor in the bank's cost of monitoring the entrepreneur. The transportation costs involved in visiting the premises of the entrepreneur increases



with distance. This additional cost will influence the pricing of the loan to the borrower.

### **3.6.2 Factors affecting the accessibility of bank credit by small business entrepreneurs**

A number of factors can be identified as being the main obstacles to bank lending to small businesses. These are: a lack of entrepreneurial equity in business, a high credit risk, poor business information, unreliable financial data, unavailability of collateral, and vulnerability to market fluctuations (UNCTAD, 2001; Wagenvoort, 2003c). When raising finance in the formal financial market small businesses face market inequalities (Binks and Ennew, 1996; Beck and Demirguc-Kunt, 2006). These market inequalities are the results of information asymmetry that might occur between the lender and the small business (Stiglitz and Weiss, 1981; Greenwald et al., 1984). This information asymmetry problem is likely to lead to credit rationing (Stiglitz and Weiss, 1981; Zeller, 1994; Das, 2004). Banks consider small businesses as higher risk ventures and therefore charge them higher interest rates compared to large firms (Pissarides, 1999). This arises partly because small businesses are unable to provide adequate collateral to support their loan applications, have poor credit history, uncertainty about the entrepreneur's ability and repayment capacity (Abereijo and Fayomi, 2005; Beck and Demirguc-Kunt, 2006).

In an entrepreneur-bank- relationship, the presence of information asymmetry may lead to a higher transaction and monitoring costs (Tucker and Lean, 2003). This information asymmetry problem may lead to quality borrowers being denied credit or the acceptance of riskier borrower's application. To resolve this, the bank will introduce a screening device to sort out high risk and low risk borrowers. However, the high costs associated with screening and monitoring makes this activity

unattractive to the banks. Hence, banks may charge higher interest rates to compensate for the screening activity (Tucker and Lean, 2001; Malhotra et al., 2006). However, the high interest rate will discourage low risk borrowers from seeking credit and will leave the credit market allowing only high risk borrowers to remain. This will lower the bank's expected return and thus increase its risk (Hallberg, 2000). To avoid this, the bank will make a request for collateral to enable them to sort out high risk and low risk borrowers (Cowling and Mitchell, 2003) or reject the application outright (Inderst and Muller, 2007; Malhotra et al., 2006).

A number of studies have argued that the main problem in bank lending to small businesses is the issue of moral hazard (Aghion and Bolton, 1992; Hart, 1995). Hence, bank demand for collateral is to minimise or eliminate possible loss of investment (La Porta et al., 1998). The protection of creditor rights which includes the right to repossess collateral helps banks mitigate the problem of moral hazard (Rajan and Zingales, 1995). A number of factors may influence the type and size of collateral demanded by the bank. Among these are the size of the loan (Leeth and Scott, 1989), the size of business (Avery et al., 1998), a durable relationship (Petersen and Rajan, 1994; Berger and Udell, 1995; Boot, 2000) and the reputation of the entrepreneur (Diamond, 1989).

This action of the bank will lead to adverse selection; that is, 'honest' borrowers reject the loan offer and exit the credit market leaving the lender with a higher risk portfolio (Jaffee and Russell, 1976). On the other hand 'dishonest' borrowers will prefer a higher risk project with an increased interest rate than a lower risk project. The failure of the small business to perform to meet the required standard and the inability of the bank to effectively monitor the project will lead to the problem of moral hazard (Stiglitz and Weiss, 1981). This is likely to decrease the expected

return for the bank. Hence, the bank will react by rationing credit to the small business (Binks and Ennew, 1996; Bester, 1987).

Overtime, the financial needs and requirements of small businesses change and develop, hence their sources change as they journey through the growth stages (Steel and Webster, 1992). Start-up businesses depend heavily on internal sources of finance. Notably these are personal savings, contributions from friends and relations, business associates, retained earnings, supplier's credit and consumer credit for business growth and development (Aryeetey et al., 1994; Okoh and Ping, 2000; Bigsten et al., 2000; Nissanke, 2001; Atieno, 2001). Over the years, these businesses build a track record which attracts both private and public investors into their businesses that is business angles and venture capitalists.

Most empirical work done in developing countries on small business access to external finance has shown that small business entrepreneurs face a myriad of challenges (Aryeetey et al., 1994; Baydas et al., 1994; Nissanke and Aryeetey, 1998; Okurut et al., 2005; Tagoe et al., 2005). These formal financial institutions which includes; commercial banks, finance companies, loans and savings companies, brokerage firms, leasing companies and venture capitalists have been reluctant in financing small businesses for a number of reasons. The next section examines some of these reasons. Notably these include the perceived high risk associated with small business borrowing, the high interest rate payment, the high administrative costs involved in small business lending, and the absence of business information leading to information asymmetric problems, the unavailability of collateral and the competition in the banking sector.

### **3.6.2.1 Perceived high risk borrowers**

Most small businesses encounter several challenges in their day to day business transactions. They face problems such as insufficient assets, increasing liabilities and low capitalisation, a lack of tangible collateral, vulnerability to market fluctuations, inadequate managerial skills, a lack of demand, and a shortage of working capital, poor turnover, and high mortality rates (Sarder, 2001; Ting, 2004; UPS, 2005). Banks and other financial institutions therefore regard small businesses as high risk borrowers (Schiffer and Weder, 2001; Lieholm, 2002) and as such are reluctant in financing them (UNCTAD, 1999). Lending to small businesses is perceived to be high risk because banks face difficulties collecting relevant business information to assess their credit applications and most of these businesses lack the requisite collateral to secure the facility. Even where credits are granted, monitoring of these credits is not only difficult but costly especially with micro enterprises, they keep relocating from their known locations, and sometimes even disappear. This leaves banks with numerous non-performing loan portfolios (Aryeetey and Fenny, 2006).

Additionally, most banks are basically urban located with a few of their branches located within the rural areas. They consider lending to a small business as a high risk venture and are therefore reluctant in serving small businesses with small credit request but, rather deal with larger businesses with larger loan request (Abereijo and Fayomi, 2005). Banks prefer offering loans to larger and well established businesses which they consider more profitable compared to small businesses often considered to be associated with high default rates (Wagenvoort 2003). Moreover, banks perceive small business's credit requests as difficult to process in view of the problem of asymmetric information. Most inexperienced novice entrepreneurs are

unable to convince their banks about the viability of their projects (Binks and Ennew, 1996).

### **3.6.2.2 High interest rate payment:**

Compared to large businesses, small businesses do pay higher interest on loans they secure from banks and other formal financial institutions and also have to comply with more restrictive requirements in order to obtain credit (World Bank, 2004b). For instance, in a survey of 33 countries on a World Bank project on financing small businesses, it was noted that in absolute terms, small businesses pay higher interest rates ranging between 24-33 percent (Webster, 1991; Aryeetey et al., 1994). It is argued that access to finance, rather than the cost of finance, constitute a constraint to small business's growth and development (Wattanapruittipaisan, 2003). It is also argued that these small businesses will prefer having access to bank credit at even a double the interest rate which is still lower than obtaining these loans from finance houses and informal sources such as money lenders or grey markets (Asian Development Bank, 2003). Rates from these markets may be as high as 30% per month on a short term monthly loan and between 5 and 10% per month for a long-term loan of a year's maturity (UNCTAD, 1995; Aryeetey et al., 1994).

Besides the interest rate, banks charge additional fees such as application fees, service fees and administrative expenses when extending credit to potential borrowers (Atieno, 1999; Monge-Naranjo et al., 2001). In addition to these fees, the entrepreneur is confronted with expenses for the use of expertise such as business advisory service provider, an accountant, valuation expert, a guarantor (co-signer in the case of micro-firms), borrower's time and the transportation cost involved in credit negotiations

(Danos et al., 1989). The distance between the entrepreneur and the bank also determines the transaction costs (Degryse and Ongena, 2005).

### **3.6.2.3 High administrative cost of small business lending**

Generally, administrative costs of lending are fixed irrespective of the size of the facility. Administrative cost normally includes the visitation to the entrepreneur's business site to gather information, processes the credit application and the monitoring of the credit facility granted (Binks and Ennew, 1997; Hallberg, 2000; Carpenter and Petersen, 2002; Berger and Udell, 2007). However, the administrative cost for the small business is higher compared to that of larger enterprises for reasons such as unavailability of business information leading to information asymmetry, the location of small businesses - often further away from the banks, and the reluctance of bank officers to serve the numerous small businesses compared to a one off deal with a larger enterprise (Green, 2003).

As a consequence banks do charge higher interest when lending to small businesses to generate the required return (Pissarides, 1999). Therefore, banks charge a relatively lower interest rate to larger and well established businesses with adequate assets for collateral and more reliable business information (Wagenvoort 2003). The next section therefore examines the effect of an absence of business information in a bank-entrepreneur lending transactions.

### **3.6.2.4 Absence of business information**

A lender-entrepreneur relationship provides the lender with adequate information on the entrepreneur's creditworthiness, managerial style, and entrepreneur's strengths and weaknesses through negotiations. Banks examine all

potential borrowers by analysing the information the entrepreneur provides. The absence of good record keeping and credible financial data makes it difficult for banks to evaluate their potential borrowers and to be able to distinguish good and bad projects. Banks are therefore reluctant in financing entrepreneurs who will pretend to be submitting high quality projects but keep all negative information about the project (von Eije et al., 2003). This information will allow the bank to determine the terms and conditions the credit must take. The availability of information will enable the lender to monitor the operations of the business to avoid moral hazard problems (Cole, 1998). The absence of business information on the other hand will induce the information asymmetry problem between the lender and the entrepreneur. In effect the entrepreneur will pay a higher interest rate, pledge more collateral and this is likely to reduce the availability of credit. The next section examines the effect of information asymmetry on entrepreneur's access to bank credit.

#### **3.6.2.5 Asymmetric information:**

One of the prerequisites of lending is that relevant information must be shared by both lender and borrower; however, this is not the case in bank lending. Most entrepreneurs have more knowledge about the viability of their projects and their ability and preparedness to repay than the banks. Banks are therefore confronted with the situation of uncertainty with its associated risk of default. This information asymmetry leads to the problems of adverse selection and moral hazard (von Eije et al., 2003). The presence of information asymmetry between the banks and small businesses causes the reluctant of banks to lend to small businesses (Binks et al., 1992; Angelini et al., 1998), thus leading the banks to react in three ways (Tucker and Lean, 2003); (i) the bank will accept a loan application from the small businesses, but

with an increasing collateral requirement to solve the moral hazard problem; (ii) the bank will accept a loan application from the small businesses, but with a higher interest rate to solve the adverse selection problem and; (iii) the bank will reject the loan application to solve moral hazard and computer credit scoring problems. The total exclusion of these types of borrowers from the credit market is commonly referred to as *Redlining*.

In a loan contract between a bank and small business entrepreneurs, a situation may arise where the probability of default increases with the interest rate. This may imply that the quality of an entrepreneur worsens with a rising cost of borrowing. This situation is referred to as *adverse selection* (Stiglitz and Weiss, 1981; Besley, 1994; Winker 1999). In a typical loan contract the entrepreneur's effort is a determining factor in the probability of success of the project, which however is unobservable to the bank. An increase in the leverage ratio of the small business leads to a fall in the effort of the entrepreneur, because the entrepreneur receives less of the gain while the lender receives more (Stiglitz and Weiss, 1981; Besley, 1994; Winker, 1999).

The presence of the information asymmetry problem between the lender and the entrepreneur will result in the bank rationing credit (Stiglitz and Weiss, 1981; Zeller, 1994; Das, 2004). Banks therefore require entrepreneurs to provide collateral as a sign of determining their creditworthiness (Cowling and Mitchell, 2003), and reject the application without collateral support (Inderst and Muller, 2004; Malhotra et al., 2006). The following section therefore examines the effect of collateral availability.



### **3.6.2.6 Availability of collateral**

Collateral plays a significant role in the bank-entrepreneur relationship by decreasing the riskiness of a given credit and by giving the lender an opportunity to claim the collateral and still maintaining its power to claim against the entrepreneur (Barro, 1976; Stiglitz and Weiss, 1981; Berger and Udell, 1990). The quality of the entrepreneur is positively related to the amount of collateral pledged in the loan contract (Chan and Kanatas, 1985). Collateral is a significant factor in a bank-entrepreneur relationship to the extent that without the pledging of collateral or the right to claim the collateral in times of default and dispute, the credit will not be extended to the entrepreneur by the bank (Manove et al., 2001). In situations where the bank has little or no knowledge about the quality of the entrepreneur, the bank uses collateral as a device to sort out entrepreneurs (Jimenez and Saurina, 2003).

Entrepreneurs signal their quality by the assignment of collateral to the bank and are known to the entrepreneurs that a default on the loan triggers losses of the assigned collateral (Barro, 1976; Green, 2003). There is a negative correlation between collateral and the price of a loan in that, with given collateral, a good entrepreneur will demand a lower loan rate. At a higher interest rate, a good quality entrepreneur is willing to pledge more collateral in exchange for a lower interest rate. On the other hand a bad quality entrepreneur is willing to pledge less collateral with a rise in interest rate (Aivazian et al., 2004). A bank is therefore likely to deny credit to the entrepreneurs if the entrepreneur lacks collateral (IFC, 2000; Miller, 2001; Inderst and Muller, 2007). The acceptance of the collateral by the bank is dependent on proof of ownership, the value of the collateral, the marketability of the collateral and the absence of other interested parties.

In developed economies such as the United States, 92% of all commercial loans are secured (IFC, 2000), therefore in the developing countries collateral requirements in small business financing is not only a necessary condition but, also a rigid requirement for lending, repayment and for offsetting losses in case of a default (Otero and Lopez, 2001; Aryeetey et al., 1994). In some cases an upfront (refundable) deposit as penalty for late repayment are charged in addition to the high interest rate and collateral requirements (Webster, 1991; Holtmann et al., 2000).

### **3.6.2.7 Competition in the banking sector**

Besides these factors, small businesses are confronted with other challenges that make the accessibility to bank credit difficult or impossible. Recent competition and technological and regulatory changes in the banking sectors has lead to greater market concentration (Petersen and Ragan, 2002; Degryse and Ongena, 2004; Berger and DeYoung, 2006). Banks are merging to become universal and also closing down most of their branches in distant locations (Bonaccorsi di Patti and Gobbi, 2001). The important impact of this change is that these new banks are focusing on international and large businesses and at the same time being unable to meet the relationship banking required by small businesses to access credit. The result is that most banks are unable to meet the financing requirements of these small businesses (Alessandrini et al., 2006).

Another impact of these changes is that most banks as a result of the universal banking system have resort to centralise their credit lending decisions (Berger et al., 1999). The final credit decision maker is therefore further away from the small business entrepreneur, and hence a poorer chance of accessing credit. Again the technological changes means banks are adopting more complex and sophisticated

methods of processing credit applications (Berger and Udell, 2007). The implication of this new approach is that higher credit scores and entrepreneurial quality are required.

### **3.7 Conclusion**

The chapter has examined the financing of small businesses in relation to the structure of financing used by small business, their sources of finance specifically at start-up stages, the availability and accessibility of bank credit by the small business entrepreneur. Small businesses play an important role in the national economies of most countries. The financing of small business therefore is of great interest to policy makers.

Four theories of the capital structure of the small businesses were examined. These included: the agency theory, the pecking order theory, the market timing theory and trade-off theory. Of these theories, empirical studies have shown that small businesses follow the pecking order theory in financing their business. The determinant of a small business capital structure is also dependent on both the entrepreneur and business characteristics.

The chapter revealed that small business source their finance first with internal sources of capital such as personal savings, pensions, gifts and loans from relations and friends (Acs, 1985; Evans and Jovanovic, 1989; Hernandez-Trillo et al., 2005; Kutsuna and Honjo, 2006). As the business grows the entrepreneur supplements the financing needs of the business with external finance notable co-investors, supplier's credit and customer advances, bank overdraft and loans, (Aryeetey et al., 1994; Findings Africa Region, 1994; Manigart and Struyf, 1997; Hamilton and Fox, 1998; Heino, 2006; Bhaird and Lucey, 2006).

The chapter also discussed the obstacles of bank lending to small business entrepreneurs which revealed the information asymmetry problems and its contribution to credit rationing. The availability of bank credit to small business entrepreneurs is dependent on the costs of capital, the financing of government deficits, competition from state-owned enterprises, the policies of government on loan pricing and lending, the relationship between banks and entrepreneurs and the distance between the banks and the entrepreneur business (World Bank, 2004b; Abereijo and Fayomi, 2005; Bodt et al., 2005; Brevoort and Hannan, 2006). Similarly, the accessibility of bank credit to the small business entrepreneur is also dependent on the perceived high risk of borrowers, the high interest rate payment by entrepreneurs, the high administrative costs involved in small business lending, the problems of information asymmetry and the availability of collateral (Inderst and Muller, 2007).

The availability and accessibility of external finance to small business entrepreneurs is an important aspect of the operations of small business as this complements the internal sources of capital for growth and development. However, small business lending is associated with information asymmetry and the lack of collateral. As a result banks are unable to determine the creditworthiness of the entrepreneur and therefore resort to rationing credit in an attempt to resolve the information asymmetry problems. The next chapter reveals the concept of credit rationing, by first examining the theoretical basis for its existence and the empirical evidence of credit rationing in both developed and developing economies.



## Chapter 4

### Credit Rationing

#### 4.1 Introduction

The previous chapter reviewed the financing of small businesses. More specifically the previous chapter outlined the capital structure and sources of finance and the problems small businesses and entrepreneurs face in accessing finance. Throughout the review it was evident that access to finance has been and continues to be a major constraint to small business performance, growth and development.

Researchers and policy-makers have acknowledged the difficulties small businesses encounter in accessing external finance, in particular debt finance (Sowa et al., 1992; Levy, 1993; Parker et al., 1995; Pissarides, 1999; Levitsky and Prasad, 1989; Berger and Udell, 2002; Beck and Demirguc-Kunt, 2006). The challenges confronting small businesses in accessing finance has been attributed to the problems of information asymmetry which leads to the rationing of bank credit to small businesses (Winker, 1999; Fioretti, 2005). The theoretical arguments explaining the existence (Blinder and Stiglitz, 1983; Besanko and Thakor 1987a, 1987b) or otherwise (Williamson, 1987; De Meza and Webb, 1987; Milder and Riley, 1988; Parker, 2002) of credit rationing has well been established.

This chapter reviews the literature on credit rationing. The previous literature on credit rationing had focused on market imperfection or information asymmetry. Some empirical results have shown the existence of excess demand over supply or credit rationing of loan applicants (entrepreneurs). However, the problem has been

which particular entrepreneur is actually credit rationed (Amano, 1999). This study therefore attempts to fill this gap in the literature.

The chapter is organised as follows. In section two the concept of credit rationing is reviewed. Section three presents the various definitions of credit rationing, credit constraints and discouraged borrowers. Section four discusses the equilibrium credit rationing which examined the Stiglitz – Weiss (1981) credit rationing model and their criticisms. Section five discusses information availability and bank lending decisions. Section six examines the role of relationship lending in bank lending decisions. Section seven discusses the role of collateral in bank lending decisions. Section eight examines the literature on small business entrepreneurs and access to credit. Section nine discusses the impact of geographical distance and bank lending decisions. Section ten examines the influence of uncertainties and trust characteristics in bank lending decisions. Section eleven presents a review on empirical evidence on credit rationing. Section twelve concludes the chapter.

#### **4.2 The concept of credit rationing**

Over the last 50 years, the concept of credit rationing has received considerable attention in both the theoretical and empirical literature. The credit rationing argument plays an important role in the transmission of monetary policy. Proponents of the availability doctrine in the 1950s have explained that monetary policy operations may be suitable through a rationing channel rather than an interest rate channel (Roosa, 1951; Kareken, 1957; Scott, 1957). The motivation for this argument was attributed to an adhoc price rigidity concept. Scott (1957) has argued that irrespective of the elasticity of demand for borrowed funds, a restrictive monetary policy on money supply is likely to cause a reduction in the availability of bank credit

to individual borrowers. Arrow (1963) has also demonstrated how the presence of information asymmetry in competitive markets can generate an inefficient allocation of resources.

The availability doctrine emphasized the reductions in the money supply which would have significant restrictive effects on spending, even if they result in only a small interest rate increase or if spending is not or only insufficiently curtailed by such an increase (Baltensperger, 1978). An understanding of the nature of credit rationing and its role in the allocation of credit is important. This will aid an explanation for the entire array of market behaviour ranging from how monetary policy can influence the economy even if demand for money is relatively interest rate inelastic to issues of credit allocation (Vandell, 1984). The earlier researchers made efforts to explain the existence of credit rationing by means of a full information framework and various market imperfections.

Hodgman (1960) pointed out that the earlier explanations on credit rationing resulted from assuming that interest rates are sticky for one reason or another, an approach that more or less amounts to assuming what is to be explained. Hodgman (1960) essentially concentrated in showing that a bank's supply of credit to an individual entrepreneur could and was likely to become perfectly inelastic or even backwards bending. At a particular rate of interest, no increase in the loan rate can induce the bank to increase the amount of credit the bank is willing to extend. This hypothesis was essentially based on the existence of default risk. In essence it is important to state that after a certain loan size is reached, no increase in the rate of interest can compensate the bank for the increased default risk associated with a further increase in the size of the loan (Hodgman, 1960). This, however, is based on

the assumption that the entrepreneur's final wealth and ability to repay the loan is finite.

Hodgman's (1960) paper received comments from Chase (1961), Ryder (1962) and Miller (1962). Chase (1961) criticised Hodgman's (1960) analysis on the grounds that ability to repay is not independent of the size of the loan. He argued that the respective assessments by the entrepreneur and the bank of the profitability of an investment are unlikely to differ to the degree required to explain credit rationing.

Information possession affects the behaviour of people in many situations. Where two parties in a transaction do not possess the same level of information about the transaction, then the situation of information asymmetry arises. The ground laying works of George Akerlof (1970), Michael Spence (1973) and Joseph Stiglitz (1975) outlined the concept of information asymmetry. Akerlof's (1970) market for lemons argues that both sellers and buyers may possess different information about a particular product in the market. The seller may be in possession of private information about the product for which the buyer is uninformed. He further argued that the absence of any probability of screening, signalling or bargaining gives the seller of the product (car) an incentive to sell inferior goods to the buyer as well as a reduction in the size of the market.

Spence (1973) in his signalling model considered the market where the individual signaller interprets the market under conditions of uncertainty. Spence (1973) posits that in the labour market, the employer hires an employee under the condition of uncertainty about the employee's productive capabilities. He argued further that this information is unlikely to be available to the employer immediately after hiring, and the employer will require some amount of time to identify the employee's productive capabilities. The uncertainty about the employee's productive



capabilities is considered an investment decision under uncertainty. The employer's probability of gaining a good investment is dependent on prior work experience. On the other hand, employees in the market manage their wage schedules based on their signals and indices.

Stiglitz (1975) explored the employer's ability to screen the potential employees into various groups of productive capabilities. He considered screening as the identification of qualities and argues that without screening individual employees are likely to receive wages proportional to the average productivity of employees. However, where screening is applied in identifying high quality employees, then their wages are more likely to be higher. Stiglitz (1975) further observed that, the presence of lower productivity employees reduces the income of higher productivity employees. On the other hand, the presence of higher productivity employees increases the income of lower productivity employees.

Thus, Akerlof's (1970) market for lemons theory, Spence's (1973) signalling model and Stiglitz's (1975) screening model laid the ground work for the concept of information asymmetry to explain many economic phenomena including the concept of credit rationing. Credit rationing is associated with market failure which occurs in a competitive market where lenders are unwilling to lend to specific borrowers as a result of information asymmetry (Besley, 1994) or where demand for credit exceeds the supply (Petrick, 2005). The definition of credit rationing is therefore reviewed in the next section.

#### **4.3 Definition of credit rationing, credit constraint and discouraged borrowers**

Based on different focuses researchers have defined theoretically the concept of credit rationing in diverse ways. In their article 'A Theory and Test of Credit

Rationing' Jaffee and Modigliani (1969 pp. 851) defined equilibrium rationing as 'a situation occurring when the loan rate is set at its long-run equilibrium level'. They referred to a dynamic rationing 'as a short run situation in which the loan rate has not been fully adjusted to the long-run optimal level' (Jaffee and Modigliani, 1969 pp: 851). According to Baltensperger (1978 pp. 172) credit rationing signifies 'a condition where the demand for loans exceeds the supply at the ruling price'. This credit rationing condition occurs where prices persistently remain at the level where demand exceeds supply. This condition will allow lenders to ration credit instead of increasing the interest rate. A review of the literature on the definition of credit rationing, credit constraints and discouraged borrowers are presented below. This is supported by the table in Appendix 1 on the definition of credit rationing.

#### **4.3.1 Credit rationing**

In defining credit rationing, various factors have been used in the literature (Petrick, 2005). Kochar (1997), Turvey and Weersink (1997), Perez (1998), Okoh and Ping (2000), Foltz (2004), Petrick (2005), Steijvers and Voordeckers (2007), all defined credit rationing as a situation in which the demand for credit exceeds the supply of credit at the prevailing interest rate. Other scholars such as Baydas et al. (1994), Parker (2002), Pruteanu (2004), Abor and Biekpe (2006), Piga and Atzeni (2007), Freel (2007), and Nykvist (2008) have defined credit rationing based on the willingness of borrowers to pay an interest rate much higher than the prevailing market rate, but were turned down.

Other definitions of credit rationing have been made in relation to the cost of finance (Nissanke, 2001) or the availability of collateral (Ikhide, 2003) for the borrower to support the credit application or both (Barham et al., 1996; Mushinski and

Pickering, 2007). Besides these, still other definitions of credit rationing have been related to a less amount of credit being received or that the applicant was partially or completely rejected (Chakravarty and Scott, 1999; Atieno, 2001; Blumberg and Letterie, 2008; Omonona et al., 2008).

#### **4.3.2 Credit constraints**

Again from the literature the definition of credit constrained was varied depending mostly on the nature of the study being carried out. Jappelli (1990), Crook (1996), and Bigsten et al. (2000) considered an entrepreneur or small business as credit constrained when those individual who had their request for credit rejected by financial institutions. Other studies by Jappelli et al. (1998), Rizov (2004), and Fletschner (2008) all defined credit constrained as those entrepreneurs or businesses who had their request for a loan completely turned down. Still other scholars used the lack of finance from any source to undertake profitable investments (Winter-Nelson and Temu, 2005) a business lacking the financial flexibility to change its exposure according to its need (Russo and Rossi, 2001) and a business request for a large amount of loan even at a higher interest rate is turned down (Guiso, 1998).

#### **4.3.3 Discouraged entrepreneurs**

On the issue of discouraged borrowers, definitions have mainly been on borrowers not applying for credit for fear the application might be turned down, hence a change of mind in applying (Jappelli, 1990; Crook, 1999; Bigsten et al., 2000; Levenson and Willand, 2000; Kon and Storey, 2003; Fletschner, 2008). The availability of credit or access to credit can be said to be a decision making process (Zeller, 1994). The process starts with the demand perspective of the borrower to

identify whether there is a need for credit or not. Secondly, the borrower would have to make a second decision to either apply for credit or not. Potential borrowers may have need for credit and are willing to pay the market price of the credit; however, the lending terms and conditions put forward by the lending institutions prevent them from applying for these credits (Atieno, 1999). A number of obstacles therefore exist that prevents borrowers from turning potential demand into actual demand in Africa (Aryeetey 1997).

Among the factors that would determine the demand for bank credit is the decision of the entrepreneurs to expand the business and the type of financing they want to adopt, and whether to use internal sources or external sources (Bigsten et al., 2000). Using survey data on manufacturing firms in African countries including Ghana, Bigsten et al. (2000) found that the large number of businesses which did not apply for bank loans was not because they were credit constrained, but rather that they were suspicious of their applications being declined and would therefore not want to incur transaction costs. Their research noted that 79% of the businesses surveyed did not apply at all for bank loans. Analysis of that group showed that 40% indicated that they had no need for the loan, and 12% did not want to incur debt. It also showed that 11% of respondents did not apply because of high interest rates, 8% because they lacked adequate collateral and 70% indicated that the application process was too difficult.

Another constraint to small business refusal to access external finance is the unwillingness of entrepreneurs to have external investors invest into their business. The idea of having an external investor implies one has lost total control of the business. One important motivating factor for entrepreneurs starting their own business is the desire for total independence (Blanchflower and Oswald 1998). The

desire for independence is basically the reason for small businesses' preference for internal sources of finance as against external sources (Cosh and Hughes 2003). Additionally, most small businesses avoid external debt because they prefer to have total control of their business (Curran, 1986; Jarvis, 2000) and thereby not opting for rapid growth (Curran, 1986; Hakim, 1989).

Another factor that explains the reasons for a small business not applying for bank credit is the lack of information about the credit availability. Limited awareness of the availability of a bank facility will keep potential borrower away from applying for this facility (Kashuliza and Kydd, 1996; Atieno, 2001). The lending terms and conditions imposed by banks on small business' credit applications determine the participation of small businesses in loan application. These terms and conditions include; application fees, transaction costs, collateral value, the application processing period, interest rates, credit maturity, repayments period and covenants (Atieno, 1999; Monge-Naranjo et al., 2001). The lending decision of the small businesses is likely to be affected by the banks' terms and conditions.

From the above discussions, this study provides a common definition of credit rationing as *“a situation where banks grant credit to entrepreneurs they regard as creditworthy borrowers, while other entrepreneurs receive much less than they apply for and still other entrepreneurs are completely rejected even though they are willing to pay higher interest rates”*.

#### **4.4 Equilibrium credit rationing**

Equilibrium is that market point where demand equals supply of goods and services. However, in the credit market, equilibrium is said to occur when the bank-optimal interest rate is reached and not at the point where demand for loans equals the

supply of loans (Stiglitz and Weiss, 1981). At the bank-optimal interest rate, the expected return of the loan is highest. Even though demand may exceed supply at this stage, the bank will be unwilling to increase its interest rate. At this stage any increase in the banks interest rate will lead to a decline in the banks expected returns (Ikhide, 2003). A further increase in the interest rate will worsen the expected returns (Craig et al., 2007).

In its attempt to resolve the excess demand over supply, if the bank decides to increase its interest rate, lower risk borrowers will drop out of the market (Hellmann and Stiglitz, 2000) leaving only the higher risk borrowers (Freixas and Rochet, 1997). The increase in the interest rate will also have an effect on the borrower's choice of investment projects (Basu, 1992; Voordeckers and Steijvers, 2005). A higher interest rate implies a higher repayment for the borrowers (Bester and Hellwig, 1987). Thus, to meet this high interest rate, the entrepreneur will prefer a higher risk investment project with a higher expected return but with a lower probability of success (Winker, 1999). Since the bank is a profit maximizing firm, it will prefer to apply a non-price rationing mechanism to address the excess demand over supply (Stiglitz and Weiss, 1981). The probability of default by the entrepreneur is dependent on factors such as: market imperfection, the terms of the loan, the entrepreneur characteristics and the expected returns of the loan (Okurut et al., 2005). Where entrepreneurs are unable to meet the collateral requirement or have poor projected cash flows, they are denied credit by the banks. This is mostly referred to as redlining (Parker, 2002; Ikhide, 2003). The next section briefly examines this original credit rationing model proposed by Stiglitz and Weiss (1981).

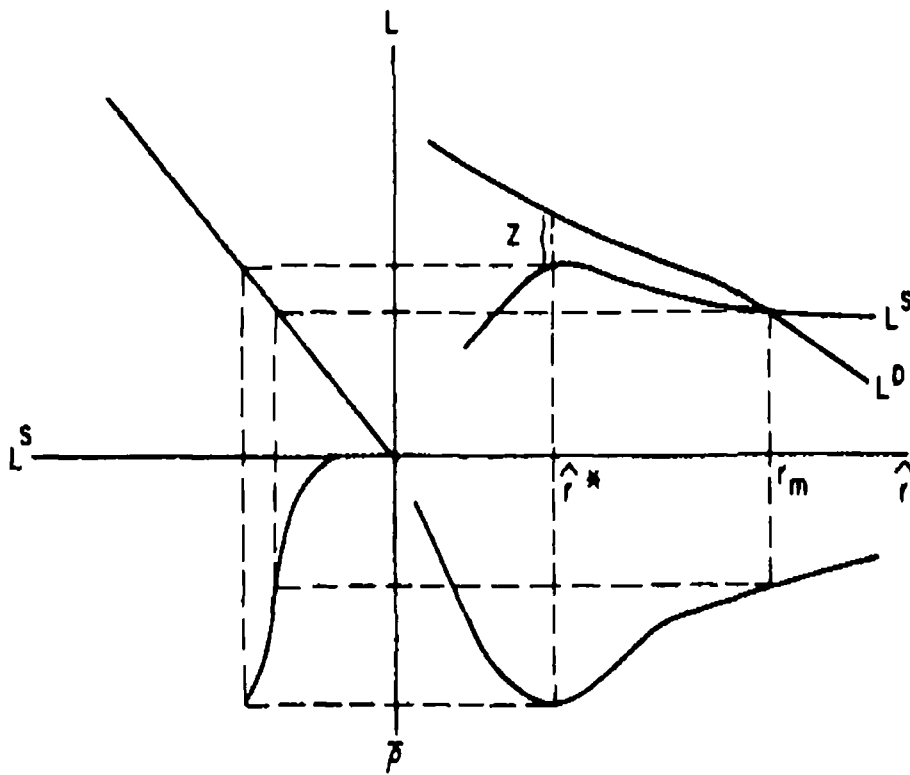
#### 4.4.1 The Stiglitz – Weiss (1981) credit rationing model

A risk-neutral competitive bank faces credit demand from businesses. These businesses apply for credit to undertake individual investment projects. These investment projects will have either successful or unsuccessful outcomes. The expected returns of all investment projects are identical even though all projects have different degrees of risk. The expected return of the bank is non-monotonic. Initially, the bank's profit margin increases as interest rates are increased to meet the increasing credit demands, resulting from higher repayments. At the bank's optimal-interest rates the expected return is maximized. Any further increase in the banks interest rates above its optimal-interest rates will lead to a decline in the banks expected returns in view of the increased default rate.

At the initial interest rate both 'good' and 'bad' businesses apply for credit. An increase in the demand for credit for investment projects will cause the bank to increase its interest rate. The bank's expected returns increases with higher repayments with all businesses being able to access the credit and repay. The increase in the interest rate may continue with an equal increase in the bank's expected returns until the rates reach the bank's optimal-interest rate.

Figure 4.1 below shows an equilibrium credit market with asymmetric information. In a competitive equilibrium banking sector all returns are transferred to the depositors, where the expected rate of bank return is equal to the deposit rate. In quadrant 3 savings deposit becomes an increasing function of the deposit rate. Assuming all loanable funds are received from the savings deposit, then in quadrant 4, there is a 45 line.

**Figure 4.1: showing an equilibrium credit market with asymmetric information**



(Source: Stiglitz and Weiss, 1981, pp. 397)

**Key:**

$\hat{r}^*$  = Is the interest rate at which the expected return to the bank is maximised

$r_m$  = An interest rate at which the demand for bank loan equals the supply of bank Loan

$\hat{r}$  = Is the interest rate charged by the bank

$\bar{p}$  = Is the mean return to the bank from the set of applicants at the interest rate  $\hat{r}$

Z = Measures the excess demand for bank loans

$L^D$  = Demand for bank loan

$L^S$  = Supply of bank loan



In quadrant 1, it is shown that credit demand is a monotonically decreasing function of the repayment level. At the maximum of the credit supply curve, demand for loans will exceed the supply for loans, and this will result in credit rationing. Credit Rationing will be of type I, if all the businesses both good and bad apply for loans with some having access and others being denied. In view of the adverse selection effect, the bank will be unable to eliminate the excess demand through an increase in its interest rate. Credit Rationing of a type II nature will occur if all businesses applying for loan receive a much smaller size of the requested loan.

The demand for credit is dependant on  $\hat{r}$ , which is the interest charged by banks and the supply of credit is dependent on  $\rho$ , the mean return on the credit. The demand for credit at  $\hat{r}^*$  exceeds the supply of credit at  $\hat{r}^*$ . When the bank increases its interest rate beyond  $\hat{r}^*$  the expected return on the credit would be reduced. The excess demand for credit is depicted by the letter Z. The bank would therefore charge interest rate  $\hat{r}^*$  and not the interest rate  $r_m$  because  $r_m$  is not the equilibrium interest rate and at  $\hat{r}^*$ , the bank would attract more borrowers and thus make more profit.

#### **4.4.2 Criticisms of credit rationing**

Various criticisms have been raised on the adverse selection and moral hazard model of Stiglitz and Weiss (1981). Among the critics are Diamond (1984); Bester (1985); De Meza and Webb (1987); Williamson (1987); Basu (1992); Cressy (1996) and Parker (2002).

De Meza and Webb (1987) examined the effects of asymmetric information on aggregate investment and on the financial structure of businesses. They asserted that asymmetric information gives rise to an adverse selection problem that causes good projects to be driven out by bad ones. De Meza and Webb's (1987) findings showed

that in the presence of asymmetric information, the financial structures of businesses and the efficiency properties of the level of investment depend upon the distribution of project returns. They disagreed with Stiglitz and Weiss' (1981) assumption that an increase in a loan interest rate may lead to an automatic rise in the riskiness of the investment project. De Meza and Webb (1987) argued that a high interest rate is likely to be associated with a low risk investment project and thus at equilibrium credit will not be rationed.

Williamson (1987) questioned the adverse selection effect of Stiglitz and Weiss (1981) and disagreed on the assumption of an exogenous nature of the formation of debt contracts. Williamson (1987) asserted that the rationed debt contract is a mechanism to maximize the return of the lender with a monitoring costs effect. Diamond (1984) asserted that the appropriate response to the moral hazard problems in the credit market with asymmetric information is the use of financial intermediation and not credit rationing. Bester (1985) demonstrated the use of both the interest rate and collateral to distinguish between entrepreneurs with different risk levels. Bester, 1985 (pp: 852) concluded that 'a signalling equilibrium in the credit market necessitates a monotone relationship between the riskiness and the preference of different entrepreneurs'. He however stated that if the necessary conditions for market signalling are not fulfilled, then there is a high possibility of adverse selection arising.

In his paper 'Asymmetric Information, Credit Rationing and the Stiglitz-Weiss, (1981) Model', Basu (1992) argued that the description of both adverse selection and moral hazard (incentive) as mutually exclusive is not entirely conclusive but, rather the two effects can occur in a large scale to provide an explanation only for the special case of credit rationing. Stiglitz and Weiss (1981) addressed the uncertainty arising from asymmetric information by referring to the individual's

preference and attitudes towards risk which are unknown to the bank. They, however, failed to address the uncertainty arising from the time duration between the entrepreneur's intension and his success to access loans. Basu (1992) disagreed with Stiglitz and Weiss (1981) on the basis that an individual entrepreneur with a preconceived notion that his/her ability to repay his/her loan is low and would not be concerned with a higher level of interest rate. He/she posited that changes in the direction of interest rate should not affect the total number of risky entrepreneurs since a higher interest rate will lead to less risky entrepreneurs dropping out of the loan market, and a lower interest rate attracting less risky entrepreneurs into the loan market.

Cressy (1996) examined whether start-up businesses are credit rationed. He argued that a false impression is likely to be made under certain assumptions that start-ups are finance constrained based on an assertion that human capital factors are correlated with both start-up's survival and assets. Cressy (1996) further argued that the provision of finance to start-ups is made based on demand driven factors. For any new enterprise to grow and make an economic impact in any economy, that new enterprise must have the availability of start-up finance at its disposal. The creation and growth of new enterprise can be facilitated by a developed financial market. In many economies, finance for large businesses poses no major problems. However, in terms of small businesses the situation is different, especially for those who lack the needed track record or collateral to support their application. Parker (2002) also stressed that small businesses, particularly start-ups are more prone to being credit rationed because they are considered risky ventures.

Scholars have argued that banks in their attempt to resolve the information asymmetry problems may adopt two main measures. These measures are the demand

for collateral from the entrepreneur to secure the credit facility. Inderst and Muller (2007) noted that the provision of collateral security by the entrepreneur signifies high quality and reputation. The inability to provide the collateral security may lead to bank rationing credit to the entrepreneur. Elyasiani and Goldberg (2004) asserted that through a durable bank-entrepreneur relationship, banks are able to gather relevant information on the entrepreneur and the business. Besides these measures, scholars have also argued that the increase in geographical distance is more likely to worsen the information asymmetry problems between the bank and the entrepreneur.

The next four sections therefore review the literature on business information, relationship lending, collateral and geographical distance and their impact on credit accessibility by the entrepreneur.

#### **4.5 Information and bank lending decisions**

Information plays a major role in bank lending decisions as it provides the bank with knowledge about the entrepreneur, reduces information rents, operating as an entrepreneur discipline device and eliminates entrepreneur incentives (Jappelli and Pagano, 2000; Padilla and Pagano, 2000). Banks derive their hard information from past financial statements and through credit scoring techniques (Berry et al., 2004; Berger et al., 2005; Kano et al., 2006; Berger and Frame, 2007), while soft information are derived from private information on the entrepreneur or other external sources (Danos et al., 1989; Stein, 2002, Cole et al., 2004; Agarwal and Hauswald, 2006).

Banks have difficulty distinguishing between entrepreneurial risks (Blumberg and Letterie, 2008; Brown et al., 2009) and doing any meaningful monitoring. In making a distinction between 'honest' and 'dishonest' entrepreneurs who had

knowledge about the likelihood of default of their investment, Jaffee and Russell (1976) compared the equilibrium of the loan market with or without rationing. They observed that 'honest' entrepreneurs in order not to default on their loan have preference to rationing loans. Where the interest rate is high, they will decline the loan offer and will leave the market. On the other hand, the 'dishonest' entrepreneurs are willing and ready to pay a higher interest rate for the loan. The market therefore reaches an equilibrium position when the amount the individual can borrow is rationed (Jaffee and Russell, 1976).

According to Vandell (1984) rationing, in the sense of surplus demand at the market-determined price, will only occur when certain circumstances representing disparities between the entrepreneur and the bank are present. These include: divergent expectations of default, different degrees of risk aversion or perceptions of risk, differential tax treatments, or institutional restrictions that result in an asymmetric distribution of the proceeds from default are present. Vandell (1984) also asserted that even in the above cases, such rationing may not be an objective market phenomenon if bank's a prior default expectations are upheld ex post.

Imperfect information in the credit market forces entrepreneurs to react adversely to changes in the interest rate. In economic theory, equilibrium is reached when the market demand equals the market supply (Jaffee and Russell, 1976; Stiglitz and Weiss, 1981). However, in the debt market, the situation is different. Here equilibrium is established when the banks' optimal interest rate is reached (Voordeckers and Steijvers, 2005). The return to the bank is a concave function of the return to the investment project. The margin on investment is considered to be negatively related to the risk of the investment. Where the possibility of default is higher, then the expected profit to the bank will be lower. On the part of the

entrepreneur, the expected return is a convex function. A large cash flow is expected to be generated from a more volatile investment project.

At a lower interest rate, both good and bad entrepreneurs will apply for a loan. However, when the interest rate is increased, the good entrepreneurs leave the loan market, leaving the bad entrepreneurs and this leads to adverse selection (Okurut et al., 2005). Furthermore, a situation may occur where an increase in interest rates will affect the selection of investment projects. Entrepreneurs will prefer a higher risk project with an increased interest rate than a lower risk project. This is likely to decrease the expected return for the bank. This concept therefore induces the incentive effect (moral hazard). To avoid these situations the bank will prefer to ration credit rather than increase the rate of interest (Hoff and Stiglitz, 1990; Freixas and Rochet, 1997; Winker, 1999).

Scholars have argued that the use of an entrepreneur's historical data and past credit performance in assessing the entrepreneur's credit worthiness is essential (Fraser et al., 1996). Banks also use credit scoring models to assign weighted scores on the entrepreneur's quality (Hubbard and Gregg, 2001; Berger and Udell, 2007). However, this is not enough to determine the future capacity and willingness of the entrepreneur to honour credit repayments (Rose, 1995). The analysis of past financial data is not enough to indicate the entrepreneur's character, integrity, reputation, commitment and benevolence to repay the facility (Ferrary, 2003). Secondly, the increasing globalisation and competitiveness of the banking industry has increased geographical distance leading to an increase in information asymmetry amongst small business entrepreneurs and hence less access to bank credit (Sapienza, 2002; Carow et al., 2005; Degryse et al., 2005). The loan contracts between the bank and the entrepreneur is characterised by the problems of adverse selection and moral hazard

(Stiglitz, 1989). In view of this the banks need to gather additional information through social and lending relationships with the entrepreneur in order to minimise defaults (Ferrary, 2003; Bharath, 2007; Brown et al., 2009).

#### **4.5.1 Adverse selection and bank lending decisions**

When lending to small businesses banks face uncertainty as they are unable to observe the quality of the entrepreneur's characteristics and actions (Dell'Ariccia, 2001). This is as a result of an information asymmetry problem between the entrepreneur and the bank and may lead the bank to ration credit to the entrepreneur (Voordeckers and Steijvers, 2005; Gregory et al., 2005). The effects of information asymmetry on bank lending have long been recognised (Akerlof, 1970; Stiglitz and Weiss, 1981, Binks et al., 1992; Shailer 1999). Information asymmetry is a situation where an entrepreneur knows more about the probability of success of their business and the associated risks facing the business than do the banks. The existence of information asymmetry signifies that banks are more likely to tighten their lending conditions through increased interest rate settings and increasing collateral requirements (Zeller, 1994; Binswanger et al., 1989).

The lending activities of banks comprise the screening of an entrepreneur's loan applications and the monitoring of loans granted to entrepreneurs (Diamond, 1984; Coleman et al., 2006; Aintablian et al., 2007). The activities include the gathering of information on the characteristics of the entrepreneur, measures to ensure that entrepreneurs adhere to the agreed contract and the taking of probable actions towards the loan repayment (Longhofer and Santos, 2000; Paglia, 2002). These actions also include the taking of enforcement actions through collateral requirement

to increase the likelihood of the entrepreneur meeting repayment obligations (Stiglitz, 2000).

#### **4.5.2 Moral hazard and bank lending decisions**

Entrepreneurs possess information about their characteristics and about the expected return on their investments (Hellmann and Stiglitz, 2000). Banks on the other hand may not have adequate information about the characteristics of each entrepreneur or the riskiness of their projects (Jaffee and Russel, 1976; Ikhide, 2003). Even though the entrepreneurs may have a reasonable probability of success for their projects, the entrepreneur might slacken their effort or change the type of investment for a more risky one (Brealey and Myers, 1991; Besley, 1994). In dealing with this problem, the bank is unable to use the interest rate as a sorting device because an increase in the interest rate will result in honest entrepreneurs leaving the credit market with only the dishonest entrepreneurs remaining (Amit et al., 1990).

Assuming that both the bank and the entrepreneur are risk neutral and the entrepreneur has a choice of investing in either a safe project or a risky one. The choice of the entrepreneur is however induced by the level of the interest rate offered by the bank (Winker, 1999). The higher interest rate induces the entrepreneur to select riskier projects in exchange for higher net returns (Gale and Hellwig, 1985). Banks adopt varying measures to address the increasing credit demand and to manage the adverse selection and moral hazard problems. Banks resolve information asymmetry problems through relationship lending, imposition of stringent collateral requirements, restrictive covenants, and acquisition of additional information on the project or capacity to repay the credit facility (Cole, 1998; Elsas and Krahn, 1998; Harhoff



and Körting, 1998a; Black et al., 1996). The next two sections examine the role of relationship lending in bank lending decisions.

#### **4.6 Relationship lending and bank lending decision**

A customer relationship is 'that strategic nexus of customer service loans and deposits which gives to commercial banks their unique character' (Hodgman, 1963 pp: 113). A bank relationship is 'the connection between a bank and customer that goes beyond the execution of simple, anonymous, financial transaction' (Ongena and Smith, 1998). The benefits of a bank-entrepreneur relationship may include the exchange of vital information, a commitment to do business together and the offer and delivery of efficient financial services (Cole, 1998). A bank-entrepreneur relationship may also be influenced by a variety of external factors. These may include the degree of technological development, competitive environment and the type of banking regulations (Ongena and Smith, 1998). Boot (2000 pp. 10) defined the bank-entrepreneur relationship as 'the provision of financial services by a financial intermediary overtime, enabling it to obtain specific, relevant and private information about the client, and evaluating the profitability of these types of investments'.

In a bank-entrepreneur relationship, small businesses are very often seen as informationally opaque (Berger and Udell, 1998). The opacity of these small businesses renders them vulnerable and therefore unable to secure adequate credit from the bank as a result of the problem of information asymmetry. Even though these small businesses may have profitable projects they are unable to access credit because information about the investment project is unavailable (adverse selection problem). Again the bank's inability to ensure the entrepreneur uses the credit for the intended purpose (moral hazard problem). Small businesses largely depend on financial

institutions to provide them with credit which they are unable to raise either by themselves or through the capital market (Berger and Udell, 2002).

In accessing these credits, small businesses approach their banks with insufficient and poor quality information. As a result asymmetric information is increased, and the degree of increase largely depends on the stage or life cycle of the business when making the application (Norton, 1991b). These asymmetric information problems and the lack of understanding between small businesses and their banks may lead to credit rationing. It is argued that businesses with close ties with their banks have value, do not undergo credit constraints and are able to access credit and invest even during financial distress (Hoshi et al., 1990a, 1990b; James and Weir, 1990; Shockley and Thakor, 1993; Uchida et al., 2008).

In resolving this difficulty, one major technique which can be applied is a credible bank-entrepreneur relationship (Boot, 2000; Berger and Udell, 2002; Cardone, et al., 2004). Relationship lending is basically the accumulation of 'soft' information of a small business in particular over time through contacts with the business, its owner(s) and the locality where the business operates (Berger and Udell, 1995; Ongena and Smith, 2000). One advantage of relationship lending is that it allows small businesses the opportunity to access credit from their lenders even though they may not have available adequate collateral, a proven track record and impressive financial statements to support their loan application (Strahan and Weston, 1998; Bodt et al., 2005). A strong lending relationship between banks and small businesses play a significant role in the determinant of credit rationing. In spite of the high cost associated with small business information processing to ascertain their credit worthiness, they are regarded as important customers of the banks (Dufey and Hommel, 1999).

Bank lending entails the gathering of information about the quality of the entrepreneur and one way of gathering this information is through the development of a durable bank-entrepreneur relationship (Elyasiani and Goldberg, 2004). This is achieved over a period of time through regular bank transactions (Petersen and Rajan, 1994; Mester et al., 1998; Degryse and van Cayseele, 2000). Relationship lending is dependent on the characteristics of the entrepreneur, the business, the duration of the banking relationship, the scope of financial services purchased by the entrepreneur and the financial and economic conditions in which the entrepreneur operates (Boot, 2000; Cardone et al. 2005).

Various empirical studies have provided evidence in support of the importance of lending relationships in terms of credit availability, pricing and collateral requirements (Petersen and Rajan, 1994, 1995; Berger and Udell, 1994, 1995; Cole, 1998; Elsas and Krahn, 1998; Harhoff and Körting, 1998a; Howorth et al., 2003; Bodt et al., 2005; Uchida et al., 2008). Hoshi et al. (1990) argued that entrepreneurs with lending relationships with their banks have less information asymmetry problems and hence have less liquidity constraints to worry about compared to entrepreneurs without any banking relationship. They further argued that entrepreneurs who broke off lending relationships with their banks in favour of the bond market became more liquidity constrained.

Several scholars have also shown that entrepreneurs with durable banking relationships enjoy credit availability (Cole, 1998; Elsas and Krahn, 1998; Strahan and Weston, 1998; Scott and Dunkelberg, 1999; Machauer and Weber, 2000) better credit pricing (Boot and Thakor, 1997; Degryse and van Cayseele, 1998; Boot 2000), and minimise collateral requirements (Harhoff and Körting, 1998a).

#### **4.6.1 Credit availability and quantity**

Banks show no preferential treatment when pricing loans even with experienced entrepreneurs who have made regular loan applications. These entrepreneurs are more likely to pay the same interest rates as first time loan applicants if not higher (Greenbaum et al., 1989). However, entrepreneurs are more likely to have a lower interest rate though it is mostly insignificant when they patronise other financial services from the bank. Similarly, a bank-entrepreneur relationship promotes an increase in the availability of credit to the entrepreneur (Petersen and Rajan, 1994). Banks are more likely to extend credit to an already established relationship, and the duration of that relationship is not considered when making the decision (Cole, 1998).

The micro structure on the decision to lend to small businesses by large banks is mainly based on a function of financial variable. However, with small banks this decision is based on variable functions such as the already established lender-borrower relationship (Cole et al., 2004). Berger and Udell (1995) observed that small businesses with durable bank relationship pay a lower interest rate and also have ready access to bank credit.

#### **4.6.2 Prices and collateral**

There has been a different shade of opinion on the pricing of loans by banks. In an earlier bank-entrepreneur relationship, some banks are believed to subsidise the entrepreneur's interest rates and are later compensated as the relationship matures (Greenbaum et al., 1989). Conversely, banks are said to offer entrepreneurs higher interest rates in their earlier bank-entrepreneur relationship because the entrepreneurs are unknown. However, these entrepreneurs later in the relationship tend to enjoy

lower interest rates (Petersen and Rajan, 1994). Relationship lending plays a vital role in the determination of loan pricing. In the initial lending relationship, entrepreneurs pay higher interest rates and with an increased collateral requirement (Boot and Thakor, 1994; Petersen and Rajan, 1995). However, as the relationship matures, and the business establishes a successful investment projects, then lower interest rates and collateral pledge is reduced (Berger and Udell, 1995). Small businesses experience lower interest rates on their loan when they keep a continuous lending relationship with their lenders (Petersen and Rajan, 1994).

#### **4.6.3 The duration of a lender-borrower relationship**

A vital element in the bank-entrepreneur relationship is the duration of the relationship. A matured relationship offers the bank an opportunity to observe, learn and use the 'soft' information of its customer for contract enforcement and building a formidable reputation for quality service. A bank-entrepreneur relationship is made good and preserved by the quality of services offered, the type of products available, the price of these products and services (Cole, 1998), the entrepreneur's quality and the bank's competitive environment (Ongena and Smith, 1998).

Using a sample of 357 bank relationship over a period between 1979 and 1994 in investigating the determinants of the duration of a banking relationship, Ongena and Smith, (1998) observed that long term relationships are more likely to be terminated than short term relationships. Ongena and Smith, (1998) also noted that new, young and small businesses often have shorter relationships with their banks. One of the determining factors for banks to offer credit to small businesses is the existence of a durable bank-entrepreneur relationship. However, using data from a

large German bank, Elsas and Krahn (1998) and Harhoff and Korting (1998b) concluded that there was no significant impact of duration on the cost of credit.

The age of a business is a vital explanatory variable in explaining the cross-sectional variation in interest rates. Thus businesses with shorter relationships tended to rely more on trade credits than businesses with longer bank relationships (Petersen and Rajan, 1994). An entrepreneur with a durable bank-entrepreneur relationship is more likely to be offered a less collateral requirement in a loan contract (Berger and Udell, 1995). Similarly, entrepreneurs with durable bank-entrepreneur relationships are more likely to be offered a lower interest rate and have a decline in collateral requirement (Boot and Thakor, 1996; Degryse and Van Cayseele, 1998; Boot, 2000). Cole et al. (2004) however found no significant relationship between loan approval and the duration of a relationship.

#### **4.6.4 Multiple bank relationships**

A business is defined as having a multiple bank relationship 'if the business maintains more than one simultaneous bank relationship during the sample period' (Ongena and Smith, 1998 pp: 9). The available findings on the impact of multiple bank relationships on credit availability, cost of credit, collateral requirement and the performance of small businesses have been varied. Businesses with multiple bank relationships are more credit constrained and pay higher interest rates than those with a single bank relationship (Petersen and Rajan, 1994; Angelini et al., 1998). Businesses with multiple bank relationships are often denied credit (Cole 1998) or their access to credit is lower than businesses with single relationship (Harhoff and Korting, 1998b).

Businesses with multiple bank relationships tend to have less value for the bank-entrepreneur relationship and hence are more likely to break this relationship sooner than businesses with single relationship (Ongena and Smith, 1998). Cole et al. (2004) examined the effect of a multiple bank relationship and loan approval. He observed that while the effect is negative but significant for large banks, with small banks; the effect is negative but not statistically significant. Degryse and Ongena (2001) observed a negative trend between sales profitability and a multiple bank relationships. They also observed that in deciding to switch from single to multiple bank relationships, small but younger businesses on the average choose to switch than older businesses.

Castelli et al., (2006) used a regression analysis on data from Italian manufacturers and examined the consequences of firm's financing strategy in terms of the firm performance and the relationship between the number of banks. They concluded that as the number of bank relationship increases, the performance of businesses in terms of return on assets and equity decrease and this is strongest among small businesses. They also asserted that multiple relationships results in increased interest expense over assets indicating a higher interest rate.

#### **4.6.5 Small businesses and relationship lending**

The financing of small businesses has recently been a major concern for monetary policy authorities as a result of the recent mergers and acquisitions. Earlier research works have concluded that larger banks as a result of mergers or acquisitions tend to be reluctant to offer credit to small businesses (Berger et al., 1998; Berger and Udell, 2002). Chakravarty and Yilmazer (2004) re-examined the bank-entrepreneur relationship with much emphasis on the effect of the relationship on the interest rate

charged by the bank. They considered the overall loan granting process; the application stage, the rate setting stage and the decision stage in their re-examination. Chakravarty and Yilmazer (2004) observed that the bank-entrepreneur relationship was only vital in the entrepreneur's decision stage to apply or not and the bank's decision stage to approve or decline the loan application. They however asserted that the bank-entrepreneur relationship plays no significant role in the setting of the bank's interest rate. Small businesses operating multiple banks, utilising their banks products and having a durable relationships are more likely to have a better access to credit, enjoyed lower interest rates and reduced collateral requirements (Cardone et al., 2005).

#### **4.7 Collateral and bank lending decision**

##### **4.7.1 The use of collateral**

Collateral is vital in all loan applications particularly in commercial and industrial loans, accounting for nearly 70% of all commercial and industrial secured loans in the United States (Berger and Udell, 1990) and about 85% of loans granted to small businesses are secured with collateral in the United Kingdom (Black et al., 1996). The efficiency of a bank's credit decision can be improved with the support of collateral. Banks are likely to increase both interest rates and collateral requirements for investments with lower cash flow projections. On the other hand, where expected cash flows are higher, banks are more likely to reduce interest rates and collateral requirements. Collateral assures the bank of the entrepreneur's willingness to repay the loan and thus raises the probability that credit will be granted to the entrepreneur (Inderst and Muller, 2007).



Recent arguments in economic literature have indicated the central role played by collateral in the bank-entrepreneur relationship. It is said that without collateral especially on the part of small businesses it is impossible to access credit (Manove et al., 2001). Entrepreneurs can pledge two types of collateral: the use of an asset within the investment project or the use of an asset outside the investment project (Chan and Kanatas, 1985). There are several hindrances to the efficient use of collateral especially in Africa. Difficulties associated with the use of collateral may include legal and monitoring costs (Chan and Kanatas, 1985), cultural and political factors (Platteau 1994a) and pervasive corruption (Biggs and Stivastava, 1996). To ensure an efficient use of collateral in bank lending, four key conditions must be present. These are: (i) allocation of property rights; (ii) a prompt enforcement of contracts; (iii) efficient and effective courts and registries systems; and (iv) an enabling environment for credit lending (Cadwell and Meagher, 1996).

Moral hazard is considered to be the main problem of accessing credit particularly among small businesses. Entrepreneurs may choose to misapply the accessed credit in unproductive ventures, thereby defaulting in repayment. Thus the right to repossess collateral enables the bank to secure the loan and also ensure that the entrepreneur applies the credit in a productive manner for fear of failure and loss of collateral (Myers 1977; Smith and Warner, 1979; Sultz and Johnson, 1985; Hurt, 1995). The pledge of collateral by an entrepreneur in a loan application assists in eliminating the adverse selection and moral hazard effects and gives a candid opinion about the entrepreneur's creditworthiness (Stiglitz and Weiss, 1981; Bester, 1985; Besanko and Thakor, 1987a; and Chan and Thakor, 1987).

Barro (1976) develops a theoretical model in which he used collateral as a mechanism for enforcing a loan contract. He asserted that the default of a loan by the

entrepreneur triggers the loss of the collateral which has a stochastic value at the time of loan negotiation. Wette (1983) used Stiglitz and Weiss' (1981) model on the effect of adverse selection and incentive effects on the loan market with imperfect information to demonstrate a similar effect when banks increase their collateral requirement for loans. Banks that choose to increase their interest rate in situations of excess demand are likely to suffer adverse selection since only the risky entrepreneurs will accept loans at that high rate. Banks are unlikely to use an increase in collateral requirement as a rationing device to eliminate excess demand even amongst risk-neutral entrepreneurs, simply because such an action can lead to adverse selection which has a negative influence on the bank's expected return on the loan (Wette, 1983).

In situations where loans have already been granted by the bank, the role of collateral is still vital. Collateral ensures that the moral hazard problems are eliminated (Boot et al., 1991). It also ensures that the entrepreneur applies the credit efficiently to the investment project. The ability of the borrower to repay his/her loan is directly proportional to value of collateral pledge (Rajan and Winton, 1995). The entrepreneur is aware that on default of the project, the bank has the right to claim the collateral (Aghion and Bolton, 1992; La Porta et al., 1998).

#### **4.7.2 The impact of collateral on credit risk**

Two schools of thought have interpreted the impact of collateral on credit risk. One school of thought considered the impact of collateral on the problem of adverse selection during loan decision making (Stiglitz and Weiss, 1981; Bester, 1985; Chan and Kanatas, 1985; Besanko and Thakor, 1987a, 1987b; and Chan and Thakor, 1987). Higher quality or lower risk entrepreneurs are willing to pledge adequate collateral for

a lower interest rate credit investment (Besanko and Thakor, 1987a; Chan and Kanatas, 1985). However, Morsman, (1986) have claimed that it is rather riskier entrepreneurs who are more likely to pledge collateral. On the other hand higher risk entrepreneurs will prefer higher interest rates with no collateral (Capra et al., 2002). The banks are therefore able to resolve the adverse selection problem (Jimenez and Saurina, 2003). The other school of thought examines the effect of collateral on moral hazard problems once the loan has been granted (Aghion and Bolton, 1992; La Porta et al., 1998).

Bester (1985), in contrast to other studies, assumed that a bank will make a simultaneous decision upon their collateral and interest rate rather than a separate one as emphasized in earlier analysis. Bester (1985) showed that the lender using a combination of interest rate and collateral has the capacity to distinguish between entrepreneurs with different risk levels. The importance of collateral can be seen in a situation where lenders are unable to determine the default probabilities of the borrower. Banks ration credit when faced with information asymmetry. However, this decision is mitigated by the use of collateral offered by the entrepreneurs to prove their quality (Besanko and Thakor, 1987a). An entrepreneur contracting a loan under asymmetric information is likely to encounter issues of loan quality, interest rate, increased collateral requirement and credit rationing.

#### **4.7.3 Collateral risk-relationship**

Researchers have found a negative correlation between collateral and default risk. An adverse selection problem arises when banks using a fixed loan rate increase their collateral requirement (Stiglitz and Weiss, 1981; Wette, 1983). The bank is unlikely to use an increase in collateral requirement as a rationing device to eliminate

excess demand even if entrepreneurs are risk neutral, simply because such an action can lead to adverse selection which has a negative influence on the banks expected return on the loan (Wette, 1983). The bank is better off rationing credit than to increase collateral requirements since this has the potential of driving out good borrowers with successful projects (Stiglitz and Weiss, 1981).

Subsequently, different arguments have been put forward from that of the above. Banks are better off using simultaneously the interest rate and collateral rather than credit rationing since this approach is more likely to eliminate the adverse selection problems. Entrepreneurs with a higher risk project will be reluctant to pledge more collateral and this will serve as a screening device for the bank to sort out entrepreneurs with unsuccessful projects (Chan and Kanatas, 1985; Bester, 1985; 1987; Besanko and Thakor, 1987; Boot et al., 1991, 1994; Coco, 2000). Yet another argument is that collateral is still not an efficient and effective way of eliminating risky projects. Collateral can be used to enforce adherence to straight investment projects for which credit has been granted (Stiglitz and Weiss, 1986; Clemenz, 1986; and Chan and Thakor, 1987). This approach however it is argued leads to high monitoring cost and thus provides an incentive for credit rationing (Aivazian et al., 2004).

Besides the above negative correlation between collateral and risk, other arguments have been put forward to demonstrate that a positive correlation between collateral and default risk exist. Entrepreneurs with high risk projects are willing to pledge more collateral. The use of collateral prevents entrepreneurs from diverting project funds into alternative projects (De Meza and Southey, 1996), because the threat of liquidating the collateral when the entrepreneur defaults prevent opportunistic behaviour (Hubbard, 1998). It also succeeds in eliminating the moral

hazard problems (Black and De Meza, 1992; Bester, 1994). The relationship between collateral and credit risk is positive when riskier than average businesses borrow on a secured basis, and also the average secured loan tends to be riskier than the average unsecured loan (Berger and Udell, 1990).

The inefficiency and effectiveness of the courts and registries systems limit the use of collateral and credit lending to small businesses because of high legal fees, administrative delays, and the cumbersome nature of enforcing the collateral (Bigsten et al., 2000; Daumont et al., 2004). For instance in Africa, although there are high levels of default, banks hardly resort to the courts to enforce the collateral for reasons of costs and time (Fafchamps, 1996; Aryeetey et al., 1997; Fafchamps and Minten, 1999; Bigsten et al., 2000). Additionally, appropriating collateral after an entrepreneur has defaulted is difficult because of cultural and political reasons (Biggs and Srivastava, 1996; Isakasson and Wihlborg, 2002; Daumont et al., 2004).

In a bank-entrepreneur relationship, banks face uncertainties when lending to small businesses and are therefore unable to determine the quality of the entrepreneur (Voordeckers and Steijvers, 2005). This uncertainty arises from the lack of information and the unavailability of collateral to support the credit application (Inderst and Muller, 2007). Previous studies have shown that this information asymmetry problem is compounded by the distance between the entrepreneur and the bank, leading the banks to ration credit to entrepreneurs located further away from them (Degryse and Ongena, 2005; Brevoort and Hannan, 2006; Alessandrini et al., 2006). The next section therefore assesses the effect of geographical distance on entrepreneurs' access to finance.

#### **4.8 Small business entrepreneur and access to credit**

The financing of small businesses has received considerable academic interest over the last three decades (Hughes and Storey, 1994; Storey, 1994). However, the interest in the financing of novice, serial and portfolio entrepreneurs have not received that much attention (Danson, 1999). An entrepreneur requires diverse skills in order to put together all the needed resources to start a venture or take advantage of an opportunity (Venkataraman, 1997). These skills may be natural gifts or acquired through formal education and informal training (Lazear, 2005; Zhang, 2007).

Access to finance plays an important role in the growth and development of an entrepreneur's business (Black and Strahan, 2002). The availability and cost of finance affects the performance of the entrepreneur. Limited access to finance retards the entrepreneurial activity (Holtz-Eakin and Rosen, 1999). In financing the entrepreneur, financial institution encounter an agency problem arising from condition of imperfect market and asymmetric information (Stiglitz and Weiss, 1981; Berger and Udell, 1993; Denis, 2004). The presence of adverse selection and moral hazard in entrepreneurial financing creates the potential for financial institutions to ration credit (Binks and Ennew, 1996). The problems of information asymmetry can be overcome through the pledging of collateral by the entrepreneur to secure the credit facility (Cowling and Westhead, 1996; Hart, 2001), and also through the use of relationship lending in which the financial institution builds a good working relationship with the entrepreneur (Shane and Cable, 2002). These two approaches increase the availability of credit to the entrepreneur (Uzzi, 1999; Shane and Cable, 2002). The degree of information asymmetry may differ between the novice, serial and portfolio entrepreneurs, therefore the potential for credit rationing is more likely to also differ.

Exploring the new business gestation process among novice, serial and portfolio entrepreneurs, Alsos and Kolvereid (1998) observed that portfolio entrepreneurs adopt a gradual step in their business start-up process taking much time in decision making and ensuring a successful implementation of business before incurring costs. Initial business start-up capital is mostly from internal sources and only requires external funding much later. Serial entrepreneurs on the other hand, are more active in their business start-up process. Initial start-up capital is from the sale of previous businesses and sought external funding much earlier than portfolio entrepreneurs. Novice entrepreneurs are also more active in their business start-up process. The initial start-up capital is mostly from personal saving, family and friends. They are very slow in decision making and carefully incur costs during the business gestation period.

#### **4.8.1 Habitual entrepreneurship and access to credit**

The habitual entrepreneurs by virtue of their cumulative business experience may have generated a set of resources which places them in a better position to gain credit than the novice entrepreneurs for whom the business process of setting up and applying for their own businesses' credit is a comparatively new process (Wright et al., 1997a). In other words, the habitual entrepreneurs are able to establish more resources to attain and then sustain resources and capabilities (Barney, 1991; Penrose, 1959) than the novice entrepreneurs, and this translates into the habitual entrepreneurs being in a better position than novice entrepreneurs to successfully gain all the external credit which they are seeking (Westhead et al., 2004).

In addition, there is the possibility that the habitual entrepreneurs may have been very unprofessional and made poorly presented written documents and poor oral

presentations to secure external credit. In those circumstances the habitual entrepreneurs' reputation could have suffered and they now have stigmas attached to their names. This notwithstanding, the entrepreneurs may have learned the error of their ways and could become more successful in their next enterprise (McGrath, 1999).

Entrepreneurial behaviours are often shaped by their human capital profiles (Reuber and Fischer, 1999). Prior studies on human capital have argued that an entrepreneur's demographic characteristics, achieved attributes and prior work experience can have a positive (or negative) effect on productivity. Entrepreneurs with broader pool of human capital resources will report superior levels of productivity (Becker, 1975). Habitual entrepreneurs during their career develop durable relationships and social networks to their advantage (Starr and Bygrave, 1991; Hellmann and Puri, 2002; Hsu, 2003).

With these social connections and durable relationships, habitual entrepreneurs generate easier access to information, and possess influence, control, power, contacts, and connections (Coleman, 1988; Adler and Kwon, 2002). Habitual entrepreneurs are able to process, utilise and provide relevant business information which enhances the entrepreneur's chances and also facilitate business opportunities (Shane and Venkataraman, 2000; Cohen and Prusal, 2001). Social network ties also facilitate the habitual entrepreneur's identification, access and utilisation of scarce resources (Birley, 1985; Greene and Brown, 1997; Uzzi, 1999). Studies have also documented that habitual entrepreneurs can use their durable relations and social connections for greater influence and also to secure favourable negotiations (Burt, (1992; Leanna and Van Buaren, 1999; Shane and Venkataraman, 2000; Adler and Kwon, 2002).



Earlier studies have concentrated upon generic comparisons between novice and habitual entrepreneurs (Birley and Westhead, 1993; Kolvereid et al., 1991, Kolvereid and Bullvåg, 1993). Ucbasaran et al. (2008) have provided a comprehensive review of habitual entrepreneurs. This notwithstanding it is important to note that subsequently to the research which appeared in the early 1990s the more recent research upon habitual entrepreneurship has looked at examining sub-categories of habitual entrepreneurship, particularly portfolio and serial entrepreneurship against novice entrepreneurship (Westhead and Wright, 1998a, 1999). Wright et al. (1997) looked at sources of finance.

Habitual entrepreneurs, by virtue of their cumulative business experience may have generated a set of resources which places them in a better position to gain credit than the novice entrepreneurs for whom the business process of setting up and applying for their own businesses' credit is a comparatively new process. In other words, the habitual entrepreneurs are able to establish more resources to attain and then sustain resources and capabilities (Penrose, 1959; Barney, 1991) than the novice entrepreneurs, and this translates into the habitual entrepreneurs being in a better position than the novice entrepreneurs to successfully gain all the external credit which they are seeking.

The habitual entrepreneurs have gone through the process of starting a business before, and most of them will have had experience of applying for credit, rather than just confining resources to those which can be obtained from sources such as friends and family. Thus, they will have learned from applying for credit, and whether they were previously successful, or they were not given all, of the sought finance, or perhaps even any, of their desired credit it would be likely that the

entrepreneurs are more experienced and wiser after the events. From the above discussion, the following hypothesis can be derived:

**H<sub>6</sub>:** Habitual entrepreneurs will be less likely to be credit rationed than the novice entrepreneurs.

Entrepreneurial performance is largely influenced by the personal characteristics, aspirations and experience of the entrepreneur (Ucbasaran et al., 2001). Prior knowledge of financial sources by the entrepreneur increases the probability of successful recognition of opportunities (Ardichvili et al., 2003). Similarly, portfolio and serial entrepreneurs with enhanced resources are less likely to encounter major difficulties in exploiting business opportunities (Alvarez and Barney, 2004). Westhead et al. (2005a) argued that portfolio entrepreneurs were more likely than novice and serial entrepreneurs to identify opportunities. Wiklund and Shepherd (2008) have also noted that portfolio entrepreneurs with enhanced human and social capital resources are more likely to be successful in their business organisation compared with novice entrepreneurs. From the above discussion, the following hypotheses can be derived:

**H<sub>7</sub>:** Serial entrepreneurs will be less likely to be credit rationed than the novice entrepreneurs.

**H<sub>8</sub>:** Portfolio entrepreneurs will be less likely to be credit rationed than the novice entrepreneurs.

Previous studies have suggested that entrepreneurs with higher levels of education are more likely to perform better and are therefore more successful compared to those with low levels of education (Davidsson and Honig, 2003; Dimov and Shepherd, 2005). Sapienza et al., (1996) have argued that entrepreneurs with higher levels of education stand a better chance of networking as they are able to contact varied sources for information and other resources. Due to wider social and business networks these entrepreneurs are more aware of a greater range of sources of finance and how to access these sources. From the above discussion, the following hypothesis can be derived:

**H<sub>9</sub>:** Entrepreneurs with higher levels of education are less likely to be credit rationed.

Securing finance is increasingly becoming a difficult and a risky activity which is essential for the establishment, investment and growth of businesses (Levine et al., 2000; Love, 2003; Hanson, 2003; Tucker and Lean, 2003; World Bank, 2004a). Entrepreneurs with previous work experience are generally likely to accumulate a broader managerial and technical knowledge (Buame, 1996; Hausman, 2005). This accumulated specific human capital can be utilized in creating and exploiting new business opportunities (Oyelaran-Oyeyinka et al., 1996). Businesses owned by experienced entrepreneurs have accumulated resources which are both tangible and intangible that give them a kind of competitive advantage over novice entrepreneurs (Kay, 1993). These resources which are difficult to duplicate include organisational culture, education, experience, knowledge, know-how, reputation and capabilities

(Dierickx and Cool, 1989; Devinney et al., 2001; Grant, 2002; McEvily and Chakravarty, 2002; Galbreath, 2005).

Other resources possessed by the experienced entrepreneur are the ability to build relationships (Fahy, 2002) and social networks that enhances the business competitive advantage (Slater, 1997; Dyer and Singh, 1998). Previous studies have shown that entrepreneurs use their prior business ownership experience to successfully obtain external financial resources from banks and venture capitalists for their subsequent ventures (Wright et al., 1997a, b). The track record and the greater level of resources available in the existing businesses may then help portfolio entrepreneurs to have a higher likelihood of securing finance and avoiding being credit rationed or constrained.

Scholars have argued that the background and business ownership experience of entrepreneurs, their level of education, track record and reputation, contributes significantly to their business performance (Brüderl et al., 1992; Kilkenny et al., 1999; Rauch and Frese, 2000) and access to external credit (Westhead et al., 2003b; Westhead et al., 2005b). Similarly, banks perceive entrepreneurs with proven track records and possessing collateral security as high quality borrowers and therefore offer them credit on a much better terms compared to the inexperienced novice entrepreneurs (Wright et al., 1997a). These arguments suggest that experienced entrepreneurs may be more likely to be able to access finance successfully than novice entrepreneurs. From the above discussion, the following hypothesis can be derived:

**H<sub>10</sub>:** Entrepreneurs with prior business ownership experience are less likely to be credit rationed.

It is often cited that the most common barrier to small business innovation is access to finance; debt or equity. The immediate reason mostly offered is the problem of information asymmetry, which leads to formal financial institutions either tighten their lending terms and conditions or rationing credit to small businesses (Binks and Ennew, 1996). Hall (1989) has argued that small businesses encounter difficulty in innovation financing because of the high borrowing cost, higher monitoring costs, use of short term financing for long-term research, lending institutions inability to assess either the technological validity or project viability of the new idea or product.

Entrepreneurs engaged in product or service innovation may encounter difficulties in obtaining finance because of the high borrowing costs, higher monitoring costs, lack of long-term credit, and inability of banks to assess the technological validity of the new idea or product (Hall, 1989) and also because of a lack of collateral (Freel, 2000). From the above discussion, the following hypotheses can be derived:

**H<sub>11</sub>:** Entrepreneurs who introduced a process innovation are more likely to be credit rationed.

**H<sub>12</sub>:** Entrepreneurs who introduced a product innovation are more likely to be credit rationed.

Most exporters are unable to meet their financing requirements from internal sources, and hence they tend to rely on banks and other financial institutions as their main source of export finance (Alando, 1991; Baah-Nuakoh et al., 1996). However, these sources are not only difficult to access, but also the application procedures are

cumbersome, interest rates are high, increasing collateral requirement and most credits are short-term (Buatsi, 2002; Abor, 2005). Baah-Nuakoh et al. (1996) observed in their study that exporters in the manufacturing sector cited unavailability of credit for working capital as the most constraint to export growth and development in Ghana. Besides the availability, high interest rate was also cited as a constraint to export finance. They also observed that even though exporters were in need of export finance, they did not believe that their application would be successful.

Buatsi, (2002) found that of the 37 exporters interviewed, 29% had need for pre-shipment finance, commercial banks were the most important source of export finance, exporters cited high interest rate and collateral requirements to be high. Also, most small business exporters were unable to meet the bank requirements to access credit. Furthermore, most exporters were unable to transact business with the Export Finance Company for lack of information on their activities, that most banks cited high default rates among exporters. From the above discussion, the following hypothesis can be derived:

**H<sub>13</sub>:** Entrepreneurs engaged in exporting activities are more likely to be credit rationed.

#### **4.9 Geographical distance and bank lending decisions**

In recent times, both theoretical and empirical literature has demonstrated the importance of distance to availability and pricing of bank loans. Various studies have asserted that the condition of lending is dependant on both the distance between the bank and the entrepreneur, and the distance between the lending bank and the closest competing banks. Two rationales have been emphasized. First, the travel cost of

entrepreneurs to their banks. Entrepreneurs incur costs in travelling to transact business with their banks (Hotelling, 1929; Salop, 1979; Chiappori, et al., 1995; Park and Pennacchi, 2009). In view of the imperfect information in the credit market characterised by information asymmetry associated with small business lending, banks do incur additional costs in gathering information and monitoring loans to these small business entrepreneurs. Multiple site visits as well as specialised knowledge is required when providing loans to small business entrepreneurs (Berger and Udell, 1998).

#### **4.9.1 Bank-entrepreneur distance**

Over the last two decades, several studies have demonstrated an increase in geographical distance between banks and their small businesses (Cyrnak and Hannan, 2003; Peterson and Rajan, 2002; Wolken and Rohde, 2002; Hannan, 2003; Degryse and Ongena, 2005; Brevoort and Hannan, 2006; DeYoung et al., 2008a). Using a data sample drawn from the 1993 National Survey of Small Business Finance (NSSBF), Petersen and Rajan (2002) explored the effect of an increasing distance between banks and small businesses borrowing in the United States between 1973 and 1993. They found that the geographical distance between banks and their small businesses have increased over the two decades and that the average distance have increased by about 3 to 4 per cent per year. They attributed this to the improvements in bank productivity. They also found that the lender-borrower communication has become more impersonal and that banks acquire quality information through improved communication technology.

Also, Wolken and Rohde (2002) documented a marginal increase in distance between the small business and their banks in 1998. These results were as a

comparison between the 1993 and 1998 Survey of Small Business Finance (SSBF). Similarly, Degryse and Ongena (2005) in addressing the issue of changing distance between entrepreneurs and their banks concluded in their study of the geographical distance between entrepreneurs, their lending bank and closest competitive banks that no substantial increase in distance occurred between 1975 and 1997. They stressed the occurrence of spatial price discrimination in bank lending and noted that loan rates decrease with distance between the business and the lending bank and increase with the distance between the business and competing banks.

Moreover, studies by Brevoort and Hannan (2006) have shown that banks are willing to lend to entrepreneurs in increasing geographical areas. Using a new data set, they examined the relationship between lending decision and distance between banks and entrepreneurs. They concluded that: (i) even in local markets; distance operates as a deterrent to lending, (ii) again within the local market distance is more of a deterrent for small businesses than for large businesses and (iii) distance is still relevant in bank lending to entrepreneurs.

Besides these studies, DeYoung et al. (2008a) demonstrated that recent innovations in small business lending have contributed to an increase in the geographical distance between banks and small businesses. Using a large random of 27,429 commercial loans from 5,081 banks guaranteed by Small Business Administration (SBA) to small businesses between 1984 and 2001 in the U.S. to examine commercial lending distance between banks and small businesses. They emphasised an increase in lending distance between banks and small businesses and documented a new observed phenomenon that “a fundamental re-ordering of borrower-lender distance by the borrowers’ neighbourhood income and race characteristics” (DeYoung et al., 2008a pp. 19).



#### 4.9.2 Spatial pricing

Most spatial models assume that entrepreneurs do visit the closest bank to their businesses for banking transactions. However, this assumption is not always true with small businesses as most entrepreneurs may not be aware of the location of competing banks, their products offer and conditions of service (Grossman and Shapiro, 1984; Bester and Petrakis, 1995). In addition to this, location is only one factor (Elliehausen and Wolken, 1990), and these are other factors such as convenience, hours of operation, bank reputation, quality and reliability of bank services and products and the bank-entrepreneur relationship. Thus, an entrepreneur may choose a distant competitive bank if their condition of service and loan offers is cost effective (Pinkse, et al., 2002). Entrepreneurs are likely to move from their banks if another bank is offering a more competitive loan price and better banking service (Tirole, 1998).

Based on two empirical predictions, spatial price discrimination models have documented that, (i) a negative relationship exists between interest rate and small business - bank distance and (ii) a positive relationship exists between the interest rate and small business-closest competing bank distance (Cerquiro et al., 2007). Degryse and Ongena (2005) also noted that a spatial price relationship exists between distance and the lending period. They utilised detailed contract information from more than 15,000 bank loans to small businesses from a large Belgian bank to examine the effect of geographical distance on bank loan rates between firms, their banks and other competitive banks in the community. Degryse and Ongena (2005) found that loan rates decrease with the distance between the business and the lending bank, but increase with distance between the business and competing banks (Degryse and Ongena, 2005). They also observed that 'loan rates decrease more with lender-

business distance for transactional (single-product), short-term, uncollateralized, term (not line of credit), and non-capital expenditure loans' (Degryse and Ongena, 2005 pp.262). Another of their findings was that the spatial price discrimination is largely caused by transportation cost, but did not rule out the probability of adverse selection.

Similarly, Agarwal and Hauswald (2006) investigated the determinants of the lending decision by examining loan price discrimination in relation to the lender-borrower distance. They observed that businesses closer to the lending bank payed on average 195 basis points more than a firm located 2.6 miles from the lending bank. Besides, they argued that an increase in the travel distance between a business and the competing bank raises the loan rate by 55 basis points. Thus the loan rate and the availability of credit decrease with the distance between banks and entrepreneurs, but increases with the distance between entrepreneurs and competitor. Agarwal and Hauswald (2006) emphasised that by controlling for the quality of the entrepreneur, distance has no effect on the availability of credit. This implies that the problems of adverse selection relates to the quality of the business and not the distance between the business and the bank.

DeYoung et al. (2008b) found that the rate of default on small business loans increases with distance between bank and entrepreneur. They however emphasised that this effect is reduced by the introduction of a credit scoring technique. Cerqueiro et al. (2007) surveyed the effects of both a bank-business distance and bank organisational structure on lending decisions. They observed that banks do engage in spatial pricing which may be caused by both transportation costs and information asymmetries and stressed that a bank's ability to discriminate is dependent on the reach of the lending technology of surrounding competitors.

The pricing of a loan can affect an entrepreneur's access to external finance as this can influence repayment ability and the rate of default. The distance between entrepreneurs and their banks can also determine the risk level associated with the external finance. The higher the risk, the more likely an entrepreneur is to be credit rationed. The next section therefore examines the influence of geographical distance and entrepreneur's access to external finance.

#### **4.9.3 Spatial rationing**

Carling and Lundberg (2005) used a quarterly data set of 53, 383 Swedish limited companies between the second quarter of 1994 and the first quarter of 2000, to examine the relevance of geographical distance between borrowing businesses and the lending bank find no support for the existence of geographical credit rationing and the lowering of interest rate between the bank and the borrowing businesses citing technological changes as being the contributory factor.

Using an empirical data set from Israel, Felsenstein and Fleischer (2002) determined the risk level of the peripheral or remote business, and compared the collateral requirements of the banks for the businesses in proximity and those in remote areas by the amount of loan guarantee demanded by the commercial banks. They found that the collateral demanded by the bank in financing the small business was higher for businesses located in peripheral location than those located in the closer proximity of the bank. Felsenstein and Fleischer (2002) observed that banks considered loans to peripherally located businesses as a higher risk venture and therefore demanded increased collateral.

Using data on small business lending patterns from the Federal Reserve Board for the Community Reinvestment Act (CRA), Brevoort and Hannan (2006) examined

the relationship between lending decisions and the distance between a bank and an entrepreneur. They reported three basic findings: (i) within local markets, distance operates as a deterrent to lending, (ii) within the local market, distance acts as more of a deterrent to small businesses than to large organisations, and (iii) within the local market, distance is not declining in importance.

Bonaccorsi and Gobbi (2001) using Italian data, find that the concentration of bank branches in a particular locality is positively associated with the availability of credit for small businesses and also negatively associated with increased loan default. Alessandrini et al. (2006) used a panel dataset containing information on firms, bank office locations, bank types, credit market, institutional characteristics and macro variables in Italy to test the impact of operational and functional distance on financing constraints for businesses. They found that, the number of bank branches have increased reducing geographical (operational) distance, but at the same time increasing functional distance between the banks and the local communities. In addition the increased functional distance makes financing constraints more binding to the small business.

Agarwal and Hauswald (2006) found that distance is an important factor in the lending decision of banks to offer or deny credit. They showed that 'the likelihood of obtaining credit decreases in the distance between entrepreneurs and bank but increases in that between entrepreneurs and nearest competitor' (Agarwal and Hauswald, 2006 pp. 14). Businesses closer to their bank branch are more likely to obtain loans, whilst businesses located further away from their bank branch are less likely to obtain loans.

#### **4.9.4 Distance and information asymmetry**

The provision of finance to small businesses by banks for their investment projects are often considered highly risky and its unit transaction costs is equally expensive in view of their high default rate and lack of information (Binks et al., 1992). The unavailability of information and the high cost associated with its gathering often leads to information asymmetry. Due to these imperfect information flows, banks very often restrict the provision of loans to specific projects as well as the firm size, entrepreneurial experience, firm's track record, provision of collateral and location.

The problems of asymmetric information are severe with small businesses lending as a result of financial institution's inability to assess their credit worthiness and this makes their access to credit difficult (Petersen and Rajan, 1994; Berger and Udell, 1998). Banks are able to resolve these problems by gathering and processing soft information, through long-term relationship lending and by setting loan prices and collateral requirements to determine entrepreneur quality (Berger and Udell, 1995).

Banks acquire the private information about the small business through regular site visits, screening and monitoring of small business performance. The exercise of collecting private information is expensive and cumbersome where the small business has no proven track record (Felsenstein and Fleischer, 2002) and this is even worsened if the geographical distance between the business and the bank is further away (Petersen and Rajan, 2002; Agarwal and Hauswald, 2006; Mian, 2006; DeYoung et al., 2008b).

Banks price their products uniformly and entrepreneurs pay the same interest rate with the difference mainly on the distance between the entrepreneur and the bank

(Degryse and Ongena, 2004). The costs of monitoring investment projects increases with the distance between the bank and entrepreneur as a result of the additional communication and travelling costs (Sussman and Zeira, 1995). Therefore the proximity of borrowing businesses to the bank will reduce the costs involved in gathering information and monitoring investment projects. Entrepreneurs are therefore likely to receive favourable loan terms from their banks (Boot, 2000; Almazan, 2002).

The theoretical analysis of credit rationing has been well documented since the seminal works of Stiglitz and Weiss (1981). A number of empirical studies have also been carried out to verify the existence or otherwise of the credit rationing concept (Berger and Udell, 1992; Baydas et al., 1994; Zeller, 1994; Levenson and Willard, 2000; Blumberg and Letterie, 2002; Voordeckers and Steijvers, 2005; Blumberg and Letterie, 2008).

#### **4.9.5 Geographical distance and entrepreneurs' access to bank credit**

This section is concerned with the the relevance of geographical distance and their effects on business information and the availability of credit to small business entrepreneurs. Hotelling (1929) and Salop (1979) both demonstrated how borrowers incur transportation costs through visits to their banks for business transactions. They argued that banks price their loans uniformly in the absence of borrower location differential or that the banks are in a statutory manner prohibited from practicing spatial price discrimination. However, if banks become aware of borrower location differentials, they are likely to practice special price discrimination by setting loan prices based on the acquired information.

It is argued that borrowers closest to their bank branches are charged higher interest rates than borrowers located further away from these banks (Petersen and

Rajan, 2002; Degryse and Ongena, 2005; Hauswald and Marquez, 2006) because it is assumed that closest borrowers enjoy lower transportation costs (Lederer and Hurter, 1986; Agarwal and Hauswald, 2006). This gives the bank some form of market power (Petersen and Rajan, 1995; Cerqueiro et al., 2007) and thus allowing them to charge higher interest rates (Alessandrini et al., 2006).

Similarly, the availability of credit to the entrepreneur it is argued decreases in bank-entrepreneur distance and rather increases between the closest competitive bank and the entrepreneur (Brevoort and Hannan, 2006). However, Carling and Lundberg's (2005) analysis of a single Swedish bank found no evidence of geographical credit rationing. Monitoring costs which is associated with transportation, communication and administrative costs increases with the distance between lender and borrower. Banks incur monitoring costs when assessing their borrowers for credit and, therefore, price their loans taking into account the distance between them and the borrower. Hence loan prices are expected to increase with an increase in distance (Sussman and Zeira, 1995).

Reforms in the financial sector have eroded the legal barriers to entry and have enlarged the scope of banking activities and functions. The competitive structure of banks in communities has been reshaped and reorganised making the allocation of bank credit more competitive (Dell'Araccia and Marquez, 2004). Banks all over the world have sought to increase their branches, thus, reducing the operational distance between them and their customers. On the other hand, banks have also begun to centralise or concentrate their decisional and strategic functions in few areas. An increase in bank branch concentration has the tendency to reduce credit rationing of entrepreneurs whilst functional distance increases the probability of credit rationing (Alessandrini et al., 2006).

The consolidation of the banking sector and the geographical concentration of decisional and strategic centres have led to an increase in the functional distance between bank decisional centres and peripherally located businesses (Collender and Shaffer, 2003; Bonaccorsi di Patti and Dell' Ariccia, 2004; Alessandrini et al 2006). This situation has created informational asymmetry between businesses located further away from these decisional centres.

Various studies have emphasised that the consolidation and concentration of bank decisional centres have curtailed the managerial authority of local branch managers in loan approvals. Branch managers are allowed to use standard appraisal forms to perform only initial screening of loan applications for onward transmission to the decisional centres for the bank's credit committee to make the final credit decision (Keeton, 1995; Avery and Samolyk, 2000; Liberti, 2005).

Bank branch concentration in conurbation and large towns has an adverse effect on the credit availability of small businesses located further away from these banks. This arises because these banks are unable to gather adequate business information about peripherally located businesses and hence have poor credit screening and appraisals of their credit applications. They are, therefore, reluctant in financing businesses located further away from their decisional and administrative centres (Berger et al., 2005; Carter and McNulty, 2005, Mian, 2006). Bank concentration has also affected the credit availability to small businesses especially to peripherally located ones (Cole and Walraven, 1998; Sapienza, 2002; Alessandrini et al 2006) and has also increased loan defaults in these areas (Bonaccorsi di Patti and Gobbi, 2001). From the above discussions the following hypotheses are derived:



**H<sub>14</sub>:** The greater the distance between the entrepreneur and its lending banks the more likely the entrepreneur will be credit rationed.

**H<sub>15</sub>:** Entrepreneurs located in conurbations are less likely to be credit rationed than those located in large towns.

**H<sub>16</sub>:** Entrepreneurs located in small towns are more likely to be credit rationed than their counterparts in large towns.

#### **4.10 Uncertainties and trust characteristics in bank lending decisions**

A bank's lending decision requires that the bank takes into consideration the entrepreneur's capacity and willingness to meet the obligation of repaying the credit facility (Reed et al., 1976). The assessment of the entrepreneur's ability to repay the credit facility is the most important criterion banks base their lending decisions on (Newton, 2000). This is based on the availability of information on the entrepreneur's business (Brockner et al., 1992) which includes the cash flow projections suggesting adequate liquidity to meet repayment obligations. In addition, the decision is also based on the capacity and benevolence of the entrepreneur to secure the credit facility. Entrepreneurs lacking collateral to support their credit applications and also showing poor cash flow projections exhibit higher levels of uncertainty (Blumberg and Letterie, 2002). The entrepreneurs exhibiting these higher levels of uncertainty in a transaction are more likely to have their credit applications rejected (Kitcher, 1993; Ridley, 1995). Following from the above discussion, the following is proposed:

**P<sub>1</sub>:** The higher the level of uncertainty in a bank-entrepreneur transaction the more likely the entrepreneur will be credit rationed.

In a bank-entrepreneur relationship, the bank exercises confidence in the entrepreneur to act in good faith and take actions that will be mutually beneficial to both parties (Rousseau et al., 1998). Trust is not built overnight, it is developed gradually during a durable relationship, on repeated transactions and also requires acts of reciprocity (Lesser, 2000; Alder and Kwon, 2002; Sapanito et al., 2004). Trust is built on mutual knowledge shared between the bank and the entrepreneur giving both parties some level of confidence and anticipation of reasonable behaviour (Gulati, 1995; Ferrary, 2003). As the relationship improves, shared information increases at a much lower cost, thereby reducing uncertainty in the lending decision and thus increasing trust between the bank and the entrepreneur (Burt, 1992).

In relationship lending, the loyalty of the entrepreneur is a competitive advantage for the bank over its competitors (Reicheld and Sasser, 1990). Banks therefore build durable relationships with entrepreneurs to prevent defections (Doz, 1996; Ring and Van den Ven, 1994) and to maintain loyalty through the sharing of information (Dunkelberg et al., 1984; Berlin and Mester, 1998) and the provision of products and services to meet entrepreneur's specific needs (Binks and Ennew, 1997; Berlin and Mester, 1998). Das and Teng (1998) also noted that bank services such as advice and support to entrepreneurs signifies 'goodwill and intimacy'. Similarly, regular visits and frequent communication between the bank and the entrepreneur portrays an attribute of 'goodwill and benevolence' (Chiles and McMackin, 1996; Ring and Van de Ven, 1994; Bornstein, 1996; Dowla, 2006). The act of building a

dependable relationship is the beginning of trust building between the bank and the entrepreneur (Hirschman, 1984).

Research has shown that building a durable bank-entrepreneur relationship increases credit availability and reduces the interest rate (Petersen and Rajan, 1994; Binks and Ennew, 1997). A durable lending relationship between the bank and the entrepreneur is said to generate trust, which in turn provides the bank with a high degree of confidence that the entrepreneur will utilise the credit facility for the agreed project. Higher levels of trust improve the relationship (Gulati, 1995) and cooperation (Doz, 1996). Trust is said to improve the information flow between entrepreneurs and their banks and thus helping to reduce information asymmetry between them (Brockner et al., 1992). Following from the above discussion, the following is proposed:

**P<sub>2</sub>:** The higher the level of trust in a bank-entrepreneur transaction the less likely the entrepreneur will be credit rationed.

The lending decision on an entrepreneur's probability of default is determined on the basis of an assessment of the entrepreneur's character, capacity, capital, collateral, and conditions (Keasey and Watson, 2000; Biggs et al., 2002; Storey, 2004). An assessment of an entrepreneur's capacity, ability and integrity is very vital in credit risk evaluation before a lending decision is made. During the credit evaluation process, the bank gathers information about the quality of the entrepreneur by assessing the entrepreneur's level of education, training, prior business experience, competence and commitment (Vernier, 1996). Experienced entrepreneurs with good reputations and competences are more likely to enjoy greater credit availability

compared with inexperienced entrepreneurs who lack the required reputation to be trusted (Dei Ottati, 1994).

Collateral plays an important role in entrepreneurs' credit applications and banks' lending decisions (Berger and Udell, 1990; Black et al., 1996; Manove et al., 2001), as it mitigates the decision of the bank to ration credit in the face of information asymmetry (Besanko and Thakor, 1987a; Aghion and Bolton, 1992; La Porta., 1998). The pledging of collateral in credit applications reduces the impact of adverse selection and moral hazard (Chan and Kanatas, 1985) and thereby increases an entrepreneur's chances of obtaining credit (Black et al., 1996; Keasey and Watson, 2000; Levenson and Willard, 2000).

In the case of adverse selection, collateral plays a signalling role solving the adverse selection problem (Bester, 1985; Besanko and Thakor, 1987a). Thus, banks are able to determine the riskier entrepreneurs as higher risk entrepreneurs will prefer higher interest rates to no collateral (Capra et al., 2002; Jimenez and Saurina, 2003). On the other hand, Boot et al. (1991), Black and De Meza (1992), Bester (1994), Pozzolo (2004) have all noted that collateral ensures the elimination of moral hazard, forces entrepreneurs to take actions that will ensure positive net returns on their investments, hence repayment of the credit facility.

The bank-entrepreneur relationship is developed as a gradual process and it is based on trust and respect for each other (Boot, 2000). The offer of collateral by the entrepreneurs signifies the commitment by the entrepreneur to ensure positive net returns on the investment and also to take actions that will ensure the safety of the investments (Blumberg and Letterie, 2002). It also signifies the entrepreneur's willingness to repay and benevolence to do well (Inderst and Muller, 2007). Thus, the durable bank-entrepreneur relationship and the offer of collateral are two elements

depicting trustworthiness on the part of the entrepreneur as well as building the entrepreneur's reputation. Following from the above discussion, the following is proposed:

**P<sub>3</sub>:** The higher the level of entrepreneur reputation in a bank-entrepreneur transaction the less likely the entrepreneur will be credit rationed.

#### **4.11 Empirical evidence on credit rationing**

Levenson and Williard (2000) examined the extent to which small businesses in the United States in the late 1980s were able to access external finance they desired. They argued that it is not only the businesses ability to access external finance that matters, but also the duration of the application process. This they argue is likely to affect the businesses effective investment into profitable projects. Using new evidence on small business loan applications, Levenson and Williard (2000) concluded that constraint businesses are smaller, younger and more likely to be owned by their founders than those businesses that successfully applied for external finance. They found that the total number of credit constrained businesses was quite small and thus the extent of true credit rationing is limited.

Blumberg and Letterie (2002) used survey conducted among 1223 individuals living in the Southern part of Limburg, a Dutch province who intended to start a business in 1998 or 1999. They observed that 994 of the respondents started a business while 229 refrained from their original idea to become an entrepreneur. Based on a sub-sample of 347 respondents who applied for credit at a bank Blumberg and Letterie (2002) observed that 30% of these applications were rejected outright. They concluded that home ownership, experience obtained in previous jobs,

education, family composition, nationality, parental self-employment, multiple-ownership and income derived from previous occupation affects access to external financial resources. They argued that business plans and support obtained from an accountant are effective ways to signal credibility to a bank.

Voordeckers and Steijvers (2005) considered the empirical significance of credit rationing in their empirical work. They made a distinction between long term and short term bank debts. To ensure their growth and continuity, small businesses require financial resources. Since most of these small businesses are unable to raise the needed finance neither from their own source nor through the capital market, they rely mostly on debt finance and mainly through the banks for both their working capital loan for short term investments and long term loan for investment projects. This heavy reliance on bank debts has created an excess of demand over supply of credit. This situation is expected to raise the interest rate until credit demanded equal credit supplied. However, this does not occur since banks prefer to ration credit than increase the interest rate.

In developing countries, the financial sector is generally characterized by a non-market clearing interest rate, which is heavily dependent on the institutional credit and hence very often credit rationing (Das, 2004). Bigsten et al. (2000) used a panel data on businesses in the manufacturing sector from six African countries in investigating whether businesses in the manufacturing sector in Africa are credit constrained. Bigsten et al. (2000) argued that notwithstanding the fact that few businesses obtain credit, it was not sufficient evidence to prove that businesses were being credit constrained. They further argued, that some businesses may not have applied for credit because they had no demand for bank credit, while others are likely to be refused credit as part of the banks profit maximising behaviour. Using direct

evidence to determine whether businesses had a demand for bank credit and whether these demands were satisfied in the formal credit market. They observed that more than half of the firms in the sample had no demand for credit. Of those businesses with a demand for credit only a quarter obtained a formal financial institution loan. They concluded that outstanding debts is positively related with obtaining further lending and that micro and small businesses are less likely to obtain a bank credit than large businesses.

Using a data set from 140 manufacturing businesses from Cote D'Ivoire, Azam et al. (2001) examined the credit needs of businesses to finance positive investment projects. Azam et al. (2001) considered the business size measured by the number of employees, the sector of the business, ethnic background of the managers and the type of industry. They observed that 43 businesses out of the 140 declared they did not need financing; whilst out of the 97 remaining businesses, which needed funds, 23 obtained a loan from the formal sector, but only 12 obtained a loan from the informal credit market. The 62 remaining businesses did not obtain credit either because they had bad projects or that they were credit rationed.

Atieno (2001) used mainly primary data from individual entrepreneurs and farmers who have either received or not received credit from both formal and informal credit institutions. The July –August 1998 survey was carried out in the market centres in the rural areas of five districts of Western Kenya. A total of 334 small-scale entrepreneurs engaged in farming, wholesale, retail trade and primary processing of agricultural products were interviewed for the study. Atieno (2001) showed that 51% of enterprises had not used credit before. Of the 49% who had used credit before, 67% had used informal sources. They cited lack of information about credit and the lack of required security. Atieno (2001) attributed loan rationing in the informal credit market

to the limited resource base, and the lending terms and conditions reflected in the collateral requirement, application procedure and repayment periods for the formal credit market.

Baydas et al. (1994) used data obtained from a survey of an in-depth interview of 447 small-scale enterprises randomly selected from participants in special micro enterprise programme conducted in Ecuador in 1990. They observed that a total of 248 entrepreneurs applied for loan of which 172 had their loan request approved. The remaining 76 entrepreneurs had their loan request rejected. They further observed that 80% of the loan applicants owned the enterprises and 40% of the loan applicants were female. Also 40 % of the entrepreneurs were involved production activities, 25% in commerce, 24% in services and only 2.5% in agriculture. Baydas et al. (1994) identified a number of variables that may influence the risk perception of the entrepreneur and the loan demand. These included the number of years in business, reflecting the experience of the entrepreneur, the legal status of the business and the sector in which the enterprise is operating. They observed that owners of businesses significantly demanded larger loans than non-owners, and entrepreneurs in agriculture demanded lesser loans than those in the non-agricultural sector.

Entrepreneurs with higher levels of education demanded larger loans than those with lower level of education. Male entrepreneurs also demanded larger loans than female entrepreneurs. They argued that the negative but insignificant coefficient for age signified that older entrepreneurs may have less demand for bank credit. They concluded that if small-scale enterprises are profitable, are operated by educated entrepreneurs who are willing to pay higher interest rates, their access to credit will be improved.



Aryeetey et al. (1994) used a two-pronged approach which focused on both the supply and demand in relationship to the financing of small firms in Ghana. Their study investigated the apparent contradiction between the high propensity of small businesses to identify finance as a primary constraint and the view of banks that small businesses lending remains low for lack of effective demand for credit. They observed that credit for start-up business was relatively non-existent, with internal sources of finance as the main capital for business expansion. They also noted that external borrower increased with the size of the firm. On the demand for financing, Aryeetey et al. (1994) emphasised an indication of a strong excess demand as a result of the high rate of application for loans and the readiness of small firms to pay above-market rate of interest. On the availability of credit from the banks for small businesses, they noted a limited access to credit by small businesses.

Tagoe et al. (2005) examined the impact of financial sector liberalization policies on the financial management of small businesses in Ghana. Using six case studies, they reviewed documents and interviewed owner-managers of small businesses, banks, non-bank financial institutions and advisory service providers in Ghana. These institutions were included in order to compare their views with those of the small businesses. Tagoe et al. (2005) observed that all the interviewees identified lack of credit as the main small business constraint. They argued that small businesses could not afford the high interest rate (cost); banks preferred short-term to long-term financing (duration); and often, the banks rather reduced the loan amount (adequacy). They also indicated that banks' reluctance in lending to small businesses were mainly due to the risk perception of the banks on the small businesses in relation to large businesses, the inability of small businesses to provide collateral security and the risk free nature of government bills and bonds.

#### **4.12 Conclusion**

The chapter has reviewed the credit rationing concept beginning with the availability doctrine from the 1950s which proposed a rationing measure to an interest rate measure in the transmission of a monetary policy (Roosa, 1951; Kareken, 1957; Scott, 1957). Proponents of the availability doctrine argued for a reduction in money supply to restrict spending in situations of increasing demand (Scott, 1957; Hogman, 1960; Baltensperger, 1978). This doctrine was followed by the introduction on information possession in a transaction between two parties and the impact on the transaction where a lack of information existed.

The possession of different information by the two parties in a transaction leads to information asymmetry, where one party has information advantage over the other party. Akerlof's (1970) market for lemons theory, Spence's (1973) signalling model and Stiglitz's (1975) screening process provided the framework for the introduction of information asymmetry into the concept of credit rationing. The definition of credit rationing was established and the concept of adverse selection and moral hazard as well as the Stiglitz and Weiss 1981 credit rationing model were reviewed.

Specifically, the chapter examined the impact of information asymmetry on bank lending and credit accessibility by entrepreneurs. It also examined the role relationship lending plays in credit availability and quantity, in pricing of a credit and collateral demand. The impact of durable relationships and multiple relationships on credit availability to the entrepreneur were also reviewed. The role of lending relationship in small business credit accessibility was also assessed. The chapter also examined the habitual entrepreneur's possession of business ownership and work experience and how these influence their performance and access to credit.

In addition, the chapter looked at the use of collateral in bank credit accessibility by entrepreneurs and the role collateral plays in reducing risks or mitigating information asymmetry problems. Also, the chapter examined the impact of geographical distance on credit pricing and accessibility by entrepreneurs. Furthermore, the chapter reviewed the empirical literature on credit rationing in both developed and developing countries. Lastly the chapter discussed the role of trust in bank lending decisions under conditions of uncertainties.

The review of the credit rationing literature provides the study with the background knowledge on the concept of credit rationing. It further provides a detailed knowledge on information asymmetry, relationship lending, the role of collateral and the impact of geographical distance and their impact on credit availability and accessibility by the entrepreneur. This chapter therefore serves as a solid foundation for the empirical chapters on credit rationing. The next chapter provides the methodology used by this study to provide the empirical findings.

## Chapter 5

### Research Methodology

#### 5.1 Introduction

The three chapters preceding the research methodology chapter have reviewed the literature on the Entrepreneurship theories {Human capital theory (HCT) and Social capital theory (SCT), small business financing, and credit rationing}. Together, these chapters provide the theoretical framework and the literature review for this study. The methodology chapter discusses the operationalisation of the research models and examines the issues and arguments behind the choice of the strategy adopted for the research, the research design and the data analysis.

The data used for the empirical analysis were obtained from a survey conducted in the Greater Accra Region of Ghana between January 2007 and May 2007. Of the 1200 entrepreneurs sampled, 750 entrepreneurs were short listed for the survey. During the five month survey, 522 questionnaires were completed. Of this number 9 responses were eliminated because the businesses were found to have fallen outside the selection criteria. Another 13 responses were eliminated because almost all the responses were unsatisfactorily answered. In total, 500 valid questionnaires were obtained. From this number, 4 responses were excluded because the respondents' responses were inconsistent. The final valid responses of 496 questionnaires were achieved and yielded a 66% response rate. In addition, in-depth interviews were held with 20 Credit Managers of some selected banks in Ghana with the view of exploring the research questions and testing the propositions. Further, the operationalisation of the model, the reasons behind the choice of sample, the data

collection methods and the techniques used in analysis are discussed, along with the efforts made to ensure as well as substantiate the validity, reliability and generalisability of the findings. The major difficulties encountered during the survey are highlighted in the appropriate section.

## **5.2 The rationale for the choice of the study**

More recently, studies have emphasised the significant role played by small businesses in national development - particularly those of developing nations as many have described them as the backbone of the economy (Green, 2003; Wattanaputtipaisan, 2003), as the engine for growth (Boocock and Shariff, 2005), as the principal driving force for economic development (Szabro, 1996 pp. 1) and the lifeblood of most economies (Luetkenhorst, 2004). Besides these, studies have also emphasised that, small businesses in many countries face a myriad of challenges, particularly access to finance (Sowa et al., 1992; Levy, 1993; Aryeetey et al., 1994; Kayanula and Quartey, 1999; Hall, 2002).

Additionally, studies have also shown that the entrepreneur is the key resource of the business (Pfeffer, 1994; Shane, 2000; Rauch and Frese, 2000; Davidsson and Wiklund, 2001; Wright et al., 2001). The nature of the entrepreneurial experience impacts greatly on the businesses access to resources and performance (Brüderl et al., 1992; Boxall and Steeneveld, 1999; Ucbasaran et al., 2003; Rauch et al., 2005). Building on previous work (Westhead and Wright, 1998a; Westhead et al., 2005b) this research work makes a distinction between types of entrepreneurs and their access to start-up capital (Aryeetey et al., 1994; Berger and Udell, 1998; Hernandez-Trillo et al., 2005) and bank credit (Steel and Webster, 1992; Levy, 1993; Pissarides, 1999; Okoh and Ping, 2000; Westhead et al., 2003).

Furthermore, the research examines the impact of geographical distance on the entrepreneur's access to bank credit (Binks et al., 1992; Mason and Harrison, 1993; Felsenstein and Fleischer, 2002; Brevoort and Hannan, 2006; Agarwal and Hauswald, 2006) and lastly, the use of social capital (trust) by entrepreneurs and banks to access and provide bank credit, respectively (Uzzi, 1999; Mizruchi and Stearns, 2001; Ferrary, 2003; Saporito, 2004). The type of finance used at start-up, and access to credit to meet business goals can be greatly influenced by the entrepreneur's business ownership experience (Westhead et al., 2003).

Studies on the empirical evidence of credit rationing of small businesses have been well documented, especially in the advanced economies (Levenson and Williard, 2000; Blumberg and Letterie, 2002; Voordeckers and Steijvers, 2005). However, very little has been done on the developing nations (Bigsten et al., 2000; Atieno, 2001) and in particular Ghana. In addressing this gap, the researcher draws on a new cross-sectional survey undertaken in Ghana to establish the existence, or otherwise, of credit rationing amongst inexperienced and experienced entrepreneurs and their access to bank finance. Secondly, to demonstrate and recommend far reaching policies towards the financing of novice, serial and portfolio entrepreneurs in developing countries and in particular Ghana.

### **5.3 Time frame**

The study covers a period of three years (January 2004 – December 2006). This implies that the bank should have been operating within the stated three year period (2004-2006) in order to approve or decline credit applications from entrepreneurs. Stated differently, the bank should have been operating for at least one year. In the case of the small business entrepreneurs they need to have applied for

bank credit within the three year period (January 2004 – December 2006). This implies that the credit applications could have been done in any one of the three year period or any two or all three years.

## **5.4 Theoretical framework**

Chinn and Kramer (1999 pp. 258) define a theory as an “expression of knowledge, a creative and rigorous structuring of ideas that project a tentative, purposeful, and systematic view of phenomena.” Concepts are the major components of theory and convey the abstract ideas within a theory (Chinn and Kramer, 1999). A framework is simply the structure of the idea or concept and how it is put together. A theoretical framework, then, is an essay that interrelate the theories involved in the question. A theoretical framework therefore is a collection of interrelated concepts that guides the researcher in determining how methods for measuring variables are selected, how analyses are planned and what statistical relationships to look for in the study. The theoretical framework reviewed in this section include: the sources of entrepreneurial start-up capital, access to bank credit by novice, serial and portfolio entrepreneurs, geographical distance and entrepreneurial access to bank credit and the role of trust in bank lending decisions.

### **5.4.1 Entrepreneur’s sources of start-up capital**

Previous empirical studies have showed that start-up businesses mainly use internal (informal) sources of finance as their principal source of capital and over time introduce external (formal) sources of finance to augment their expansion drive (Acs, 1985; Evans and Jovanovic, 1989; Aryeetey et al., 1994; Findings Africa Region, 1994; Manigart and Struyf, 1997; Hamilton and Fox, 1998; Hernandez-Trillo et al.,

2005; Kutsuna and Honjo, 2006; Heino, 2006; Bhaird and Lucey, 2006). A major factor in the choice of an entrepreneur's start-up capital, the type and amount of finance used is influenced by the entrepreneur's background, business ownership experience and social network ties (Westhead et al., 2003b; Westhead et al., 2005b).

The study used the attributes of human capital (education, experience and skills) possessed by the type of entrepreneur (Pfeffer, 1994) as a resource to the small business in examining the type of and access to start-up capital used by both experienced and inexperienced entrepreneurs at the start of their businesses. To achieve this objective, the study matched the sources of start-up capital (personal savings, co-investors, gifts and loans from relations, bank loans and overdrafts, supplier's credit, customer advance, and pensions) with the characteristics of the entrepreneur (sex, age, degree, relative role model) and the characteristics of the business (sector, size, age, employment growth, location, innovation and exporting).

#### **5.4.2 Novice, serial and portfolio entrepreneur and access to bank credit**

Access to finance has consistently been identified by a number of studies as the major constraint to small business's start-up, expansion, growth and development in both developed and developing countries (Steel and Webster, 1992; Levy, 1993; Pissarides, 1999; Okoh and Ping, 2000; European Commission, 2002; European Commission, 2003; van Eeden et al., 2003; Beck and Demirguc-Kunt, 2006).

The study brings together entrepreneurship and credit rationing, and draws attention to the need to focus upon the human capital resources of the entrepreneur, and the nature of these resources which influences the entrepreneur's access to bank credit in Ghana. More specifically the study utilises the Human Capital Theory (HCT) of the entrepreneur (Becker, 1975; Star and Bygrave, 1991; Westhead, 1995; Brown



and Kirchhoff, 1997) and the nature of the entrepreneurs to investigate whether specific types of businesses and entrepreneurs have a higher probability of being credit rationed. To achieve this objective the study examines the extent to which the resources of the business (sector, size, age, employment growth, location, innovation, exporting and experience) and the entrepreneurs (sex, age, degree, and relative role model) are associated with credit rationing in three times periods: the last year, 1-2 years ago, and then 2-3 years ago.

#### **5.4.3 Geographical distance and entrepreneurial access to bank credit**

Recent studies have shown an increase in geographical and functional distance between entrepreneurs and their banks and entrepreneurs and their closest competitive banks (Petersen and Rajan, 2002; Cymak and Hannan, 2003, Degryse and Ongena, 2005; Hannan, 2003). This increase in geographical and functional distance has been attributed to structural changes in the banking industry resulting in technological progress, communication technologies, consolidation and concentration of banking functions and services (Degryse and Ongena, 2004; Berger and DeYoung, 2006; Brevoort and Hannan, 2006; Alessandrini et al., 2006; DeYoung et al., 2007; Cerqueiro et al., 2007).

As a result of the above changes in the banking industry, bank lending decisions have gradually been centralised creating both geographical and functional distances between entrepreneurs and their banks. This has created two main challenges; the problems of information asymmetry and increases in transaction costs in lending to small businesses located in peripheral areas. In order to evaluate the impact of these challenges on peripherally located small businesses, the study developed a model of credit rationing to determine the impact of geographical

distance, and match these causal variables against the control variables of the entrepreneur and the small business.

#### **5.4.4 The role of trust in bank lending decision**

A number of studies have identified the problems of information asymmetry as the major challenge facing bank lending decisions in small businesses (Binks et al., 1992; Petersen and Rajan, 1994, 1995; Berger and Udell, 1995; Angelini et al., 1998; Harhoff and Körting, 1998a; Angelini et al., 1998). The problems of information asymmetry limit the banks ability to effectively evaluate the creditworthiness of small business entrepreneurs (Berger and Udell, 1995; Binks and Ennew, 1997; Frame et al., 2001). As a result of these challenges, banks regard small business lending as a risky venture and are often reluctant to offer credit to these entrepreneurs (Nissanke and Aryeetey, 1998; UNCTAD, 1999; Abereijo and Fayomi, 2005).

In resolving the inherent risks and uncertainties associated with small business lending, banks gather relevant information regarding the entrepreneur and the small business (Diamond, 1984; Fama, 1985), demand collateral (Bester, 1994; Besanko and Thakor, 1987; Black and De Meza. 1992), and develop a durable relationship with the entrepreneur (Cole, 1998; Elsas and Krahn, 1998). Developing a durable relationship between a bank and an entrepreneur is argued to improve the flow of information (Newton, 2000) which also brings along the issue of trust and the availability of credit (Scott and Dunkelberg, 1999; Machauer and Weber, 2000).

The study aimed at evaluating the role of trust in bank lending decisions under conditions of risks and uncertainty. The characteristics of trust were employed to evaluate the role that trust plays in bank lending decisions to small business entrepreneurs under conditions of uncertainty. To achieve this objective, the study

matched relationship variables (duration, scope account, experience, capacity, performance, security) and collateral variables (cash, outside collateral, inside collateral, institutional guarantee, personal guarantee) with the characteristics of trust (reputation, similarity, ability, integrity, benevolence, communication) which the entrepreneur is expected to possess.

## **5.5 Operationalisation**

The main objectives of this study are the examination of entrepreneurial sources of finance, the identification and the evaluation of financing constraints entrepreneurs encounter and offering recommendations of policies towards the mitigation of these challenges. This section outlined the choice of research strategy used; the reasons for using a face-to face questionnaire and in-depth interviews, the reasons for not choosing other methods, and the use of quantitative and qualitative research methods. Besides these, this section also outlined the choice of site and sample population, negotiating access for interviews, together with the questionnaire administration, the criteria for sample size selection and how the research was designed.

### **5.5.1 Choosing a research strategy**

A research strategy is about the data collection tactics applied in gathering the research data, which is different from the data collection method. The research strategy must define the method to be used in carrying out the survey. In deciding on the research strategy, the researcher takes into consideration the most cost-effective approach in gathering the data and the most appropriate responses to the research questions (McNabb, 2004). In the social science field, a number of methods for

empirical research exist. These include face-to-face questionnaire administration, in-depth interviews, postal questionnaires, telephone surveys, internet surveys and observation. Any of these methods or various combinations can be adopted for any research. Each of these strategies would provide the researcher with a variety of approaches in gathering the data, and the techniques in processing and analysing the data.

In addressing the research questions outlined above, and testing the hypotheses of this study, the researcher set out an objective approach of establishing a correlation between the variables and constructing statistical models in an attempt to explain the relationships between the causal and controlled variables of the entrepreneur and the small business. To perform this function, the researcher designed a questionnaire and administered these questionnaires to gather primary data for the empirical analysis. To ensure a more efficient analysis and be able to test the hypotheses to address the research questions, a researcher can adopt a variety of methods including: quantitative, qualitative research methods or mixed research techniques (Perren and Ram, 2004).

#### **5.5.1.1 Reasons for choosing face-to-face questionnaire and in-depth interview**

In order for the findings of this study to achieve more confidence in representativeness, the study adopted a methodological integration to enhance the generalisability of findings (Evans, 1971; Gilmore and Carson, 1996; O'Donnell and Cummins, 1999). The face-to-face questionnaire administration and in-depth interview approaches were selected based on the following advantages. The face-to-face questionnaire administration is said to have a lower sampling frame bias and response bias. Unlike the other approaches, the selected approach allows for a greater

degree of control of the respondent's situation. The researcher or interviewer has the opportunity to prevent any interference or unwanted inputs from others. Again the interviewer has the opportunity to build a good relationship with the respondent thereby ensuring trust. Interviewees usually respond favourably when confronted in person. This could lead to a better response and much easier follow-ups where necessary. Respondents may also have the advantage of cross-checking their facts and records (Czaja and Blair, 2005).

A face-to-face questionnaire administration technique is an efficient and a relatively more reliable means of collecting data. Where a large data sample is required, the face-to-face questionnaire administration is cheaper compared with the telephone survey and quickest compared with a postal survey. Lastly, the approach allows for a comparison of respondents answers. Additionally, the face-to-face in-depth interview achieves a higher response rate. The researcher has the opportunity to clarify questions the respondents are unable to understand and also seek clarification on unsatisfied answers provided by respondents. The use of in-depth interviews provides the researcher with a greater understanding of why respondents provide certain responses and the meaning and significance of their responses (Jones, 1985). The in-depth interviews also provides a greater framework for respondents to express themselves in their own terms according to their understanding (Patton, 1987) and also give details on their responses to questions (Till and Hawkins, 1990). The face-to-face and in-depth interview provides the researcher with an increased depth of information, flexibility and high response rate (Pedgett, 2008).

In spite of these advantages, face-to-face questionnaire administration is not without its limitations. The limitations of this approach are that it is time consuming and also the researcher's ability to be biased or to influence the responses. If the

questionnaire is posted, the rates of responses are very often lower (Walsh and Wiggins, 2003).

#### **5.5.1.2 Reasons for not choosing the other methods**

Even though telephone surveys are convenient and quicker, where the survey questions are lengthy, telephone interviews are expensive (Kempton and Remington, 2007). Secondly, not all entrepreneurs have access to a reliable telephone network, mostly entrepreneurs located in small towns are very difficult to contact on the phone - if not impossible (Ford, 1998). Thirdly, telephone directories are unreliable in Ghana and many entrepreneurs prefer using mobile phone whose reach are equally unreliable (Tucker et al., 2007). Fourthly, most of the entrepreneurs especially in the small towns and agricultural sector do have a lower level of education and may require the assistance of the researcher or an interpreter to understand the questions and also provide appropriate responses. Fifthly, with the telephone interview, the researcher is not sure who may be providing the responses and also is unable to determine if the respondent is speaking the truth.

Postal and e-mail questionnaires although among the least expensive and methods which saves time, are associated with delays in responses (Couper, 2000). Secondly, most small businesses do not have reliable postal or e-mail addresses to enable questionnaires to be posted or mailed to them. Thirdly, postal services in Ghana are not only unreliable, but could be quite impossible to carry out as most small businesses do not have reliable postal addresses (Dillman, 2000). Fourthly, there is a high rate of non-response associated with postal and e-mail questionnaires because of the least contact with respondents (Kaplowitz et al., 2004). This low response rate is likely to introduce a bias into the sample as most of the responses may

not be a true representative of the target population. Fifthly, as indicated earlier, the lower level of education will also affect responses. Lastly, the researcher is unable to tell who actually responded to the questionnaire.

### **5.5.1.3 Quantitative research method**

In order to address the research questions a large sample of data was required to enable the researcher to gather adequate responses to the research questions. To achieve this, a quantitative research method was adopted since this method is deeply rooted in numbers and statistics and can statistically measure individual responses (Aliaga and Gunderson, 2002). Quantitative research is objective, controlled, systematic, valid and reliable (Punch, 2005). The research defines the study and the data used is structurally gathered and evaluated to avoid errors and also ensure validity and reliability (Muijs, 2004). However, quantitative research is not without limitations. Large samples are often required to draw meaningful conclusions. Apart from its expensive nature, large sample gathering can also encounter logistical difficulties. The accuracy and validity of the data can be undermined if the sampling and weighting of the data are not properly managed.

### **5.5.1.4 Qualitative research method**

Qualitative research is a highly subjective research discipline, designed to look beyond the percentages to gain an understanding of the respondent's feelings, impressions, opinions and viewpoints (Myers, 2000). In dealing with smaller, more focused samples, qualitative research proves that more effective. If well structured, the qualitative research comes along with a rich, in-depth data laden with insight

unobtainable from quantitative market research techniques (Denzin and Lincoln, 1994). Qualitative research has many strengths. It is flexible, highly-focused, and designed to be completed quickly (Maykut and Morehouse, 1994). The use of qualitative techniques opens up the possibility of more than one valid explanation (Padgett, 2008). Qualitative research is not without its weaknesses and limitations. Because it is uncontrolled and subjective, findings cannot be measured by validity or reliability tests. Data is likely to be less representative. Unlike quantitative research, it also does not allow us to predict or generalize a population beyond what is found in observation. The above section has outlined the research strategy adopted for the study and having made the choice, the next section of this study now outlines the reasons for choosing Ghana as the research site.

### **5.5.2 Choosing a research site (area)**

Ghana is a sub-Saharan African nation which is located on the west coast of Africa, and it is approximately 750km north of the Equator on the Gulf of Guinea. The Ghanaian economy is basically driven by the agricultural, industrial and service sectors. According to an ISSER (2005 pp.16) report on the Ghanaian Economy, the contributions of these sectors are significant to the growth and development of the economy.

The agricultural sector grew by 7.5% in 2004 contributing 46.7% of overall growth. The industrial sector grew by 5.1%, contributing 22.1% to overall growth and the service sector grew by 4.7%, contributing 24.3% to overall growth. The agricultural sector is the largest sector in the Ghanaian economy accounting for nearly half of GDP and employing about 60% of the total labour force. Rising cocoa production has masterminded the growth in the agricultural sector.



The industrial sector has shown signs of significant recovery growing at an average of 5.1% over the last three years. The manufacturing sub-sector is the largest component of the industrial sector, however growth has been slow. The sector has been growing at an average of 4.7% over the last three years. The other components in the industrial sector - construction, mining and quarrying have all experienced slow growth.

In 2005, the service sector grew at an estimated rate of 5.4% from 4.7% in 2004. The Tourism sector is the fastest growing sub-sector within the service sector. With an average annual increase of visitors of 11%, the sub-sector has improved in receipts by 17% in 2004 and 16% in 2005 (African Economic Outlook, 2006 pp. 284).

The financial sector reform has led to an improved financial sector. The central bank is in charge of the money market namely the commercial banks, non-banks (leasing companies, discount houses, finance houses, loans and savings companies) and the Securities and Exchange Commission is in charge of the Ghana Stock Exchange and the Brokerage firms. The choice of Ghana for the study was as a result of the following reasons:

- (i) Ghana is a developing nation with great potential of attaining middle-income status within the next decade. The financial sector reforms (FINSAP I & II) has brought to bear in the country vast opportunities for financial institutions to provide varying credit facilities to businesses at all levels of their growth cycle;
- (ii) Additionally, small businesses are springing up throughout the country at a very fast rate and their contribution to the Gross Domestic Product (GDP) and employment is significant;

- (iii) Some form of study has been done on small businesses and their access to credit in Ghana. Most of the results have shown that small businesses have encountered difficulties in accessing credit facilities. This situation is even more pronounced for micro and small businesses and in particular for start-ups. However, to the best of the researcher's knowledge no studies have been conducted on entrepreneurship and access to finance;
- (iv) The issue of information asymmetry has been identified as one of the major problems banks in developing countries and for that matter Ghana are facing. In an attempt to solve these problems banks demand collateral from businesses seeking credit with them, the absence of collateral implies that the banks would have to ration credit in order to avoid bad investments. Again, no empirical studies have been done to identify which group of entrepreneurs encounter credit rationing the most;
- (v) Studies have been done in the area of credit rationing in some African countries such as South Africa, Kenya, Egypt, Nigeria and Cote' D'Ivoire. However, in the case of Ghana no major studies have been done on the issues of entrepreneurship, small business and credit rationing;
- (vi) Lastly, the researcher had had some considerable experience dealing with small businesses and entrepreneurs and their access to credit. Also the researcher hails from Ghana and will have some comparative advantage in terms of access to information and sources of data when conducting a research in his home country.

The absence of data on small business activities in Ghana made the choice of a sample a difficult task. In collecting the data for the study the researcher set out some criteria

to sample the population. The next three sections outline the steps taken to gather this data.

### **5.5.3 Choosing a sample frame (population)**

One of the challenges in conducting small business or entrepreneurship research is the selection of a suitable sample frame. Scholars, even in developed nations have conceded the difficulty in having access to an adequate and/or a comprehensive list of small businesses from state owned, quasi-state owned and private owned businesses (Buame, 1996; Jay and Schaper, 2003; Westhead et al., 2005b). Curran and Blackburn (2001) stressed the lack of a suitable register for small businesses in the UK. Even in cases where the lists exist, the information on the list is inadequate (Jay and Schaper, 2003). This scenario therefore leaves a researcher with no other alternative than to compile an up to date list by way of contacting various associations, agencies, groups and bodies that has a working relationship with small businesses and individual entrepreneurs within the Ghanaian economy.

### **5.5.4 Criteria for sample size selection**

The participants were selected based on the following criteria:

- (i) The business must have at least four employees and at most 50 employees;
- (ii) The business must be in operation for at least one year and must have applied to its bankers for a credit facility;
- (iii) The respondent must be the owner/founder or major partner in the case of a co-investment;
- (iv) The business must be independently or privately owned (Rauch et al., 2005);
- (v) The business must be engaged in activities within the agricultural, manufacturing

and servicing sectors (Westhead et al., 2005b);

(vi) The business must be located within the six districts of the Greater Accra Region.

### **5.5.5 Negotiating access**

There are serious challenges and major hindrances to carrying out small business surveys in developing countries (Vulliamy et al., 1990). These challenges culminate from the lack of an adequate and/or a comprehensive list of small businesses. It is even more challenging where the sampling frame is reduced to the category of size, sector and location. To negotiate access, the researcher considered the four major problems encountered in doing a survey in a developing country put forward by Stephens (1990):

- (i) Access to individuals to interview or administer questionnaire and documents to support responses;
- (ii) Establishing and maintaining relationship on the research field;
- (iii) Managing the available time; and
- (iv) Operating effectively in a complex environment.

To overcome these challenges, the researcher obtained an introductory letter from Durham Business School in addition to a note introducing the research topic, the purpose of the research, the importance of interviewing each entrepreneur, the usage of the data collected, the benefits to be derived from the exercise and the assurance of confidentiality on answers provided. In order to gain access to the entrepreneurs, the researcher first approached the heads of associations, agencies and the various

financial institutions working with the small business entrepreneurs to seek their permission in administering the questionnaire. The introductory and supporting notes from the associations and financial institutions proved to be very effective as this gave the researcher a much easier access and audience to the membership of the various associations and customers of the financial institutions.

In developing the sample frame for the survey, a list of associations, agencies and government institutions were contacted to obtain lists of their members (Hall, 1995; Delmar et al., 2003). Most of the lists provided by the association and agencies contained names of the business, their location, postal address, business activities and contacts. The associations and agencies contacted for their lists of members to assist in administering the questionnaire included the following:

- Association of Ghana Industries (AGI)
- Federation of Association of Ghanaian Exporters (FAGE)
- Ghana National Chamber of Commerce and Industries (GNCCI)
- Ghana Export Promotion Council (GEPC)
- The Ghana Association of Consultants (GAC)
- Ghana Association of Women Entrepreneurs (GAWE)

The Association of Ghana Industries was the first association to be contacted. The Association of Ghana Industries (AGI) is a not-for-profit organisation, registered in Ghana. AGI was established 1958 by a group of indigenous manufacturers a membership of over 1000 throughout the country. Not-for-profit organisations can become associate members. AGI's main objectives are to contribute substantially to the growth and development of industries in Ghana and to create a business climate

which will allow Ghanaian companies to be internationally competitive. The aim of AGI is to: enhance the effectiveness of markets; strengthen the competitiveness of local industries; generate opportunities for private business; and create employment in all regions of Ghana. Sectors covered by AGI members include: Advertisements; Automotive Services; Banking and Finance; Drugs and Chemicals; Electrical and Electronics; Energy; Food, Drinks and Beverages; Garments and Knitting; Information Technology (IT); Leather, Rubber and Plastic; Metals and Building Products; Miscellaneous Services; Printing, Stationery and Packaging; Telecommunications; Textiles; Toiletries & Cosmetics; Transport Utilities; and Wood Processing.

Following from AGI, the Federation of Associations of Ghanaian Exporters (FAGE) was the next source. FAGE is a private, non-governmental organisation of Ghanaian exporters and exporter associations. The membership of FAGE comprises of over 2,500 exporting firms in a range of sectors, including agriculture, seafood, crafts, timber, textiles, minerals, and industrial materials. Their primary goal is to be the premier provider of technical and information services to facilitate transactions between Ghanaian firms and their global partners. Services provided by FAGE include provision of market information, business news, notices on upcoming conferences, and special services to enable members to become a premier exporting enterprise. Some of the organisations under FAGE include Ghanaian Handicraft and Furniture Exporters; The furniture and Wood Products Association of Ghana (FAWAG); National Fisheries Association of Ghana; Ghana Tropical Food Exporters; Ghana Assorted Food Stuff Exporters Association; and Vegetable Producers and Exporters Association.

The third source was the Ghana National Chamber of Commerce and Industry (GNCCI). It was established in 1961 under an Act of Parliament (Executive Instrument No. 196) following the amalgamation of the then four existing Chambers of Commerce. The GNCCI seeks to promote the interest of companies and organizations engaged in investment, trade, commerce, agriculture, industry and manufacturing in Ghana with total commitment to play a leadership role in the promotion of the healthy growth of the Country's economy, establishing a strong international linkage and projecting a good image for Ghana.

The fourth source of contact was the Ghana Export Promotion Council (GEPC). It was established by the National Liberation Council Decree 369 in 1969 as an agency of the Ministry of Trade and Industry with the mandate to develop and promote Ghanaian exports. GEPC is the National Export Trade Support Institution, facilitating the development and promotion of Ghana's Non-Traditional Exports. Its sole responsibility is to develop and promote exports of non-traditional products. Its focus has primarily been to diversify Ghana's export base from the traditional export products of Gold, Cocoa Beans, Timber Logs and Lumber and Electricity. Currently, there are over 300 different non-traditional Export products categorized into Agricultural, Processed/semi Processed and Handicrafts.

The goal of GEPC is to ensure that export trade contributes to economic growth through increased and sustainable production and competitive export market access. And as such its aims is to facilitate the development and expansion of the production base, and the promotion of Non-Traditional Exports from Ghana; to provide relevant trade information to support competitiveness of Ghanaian exporters and other stakeholders; to develop programmes and activities for institutional capacity building of export community to meet the challenges of the global market; to develop

a coordinated national export agenda through the harmonization of export related activities by private and public sector agencies and other development partners.

The fifth source was the Ghana Association of Consultants (GAC). The Ghana Association of Consultants (GAC) was established in 1989 at the end of a UNDP/Government of Ghana Project – Developing local consulting capacity (1988). GAC was duly registered in 1992 as a company limited by guarantee under the company code, 1963 (ACT 179). It currently boasts of over 150 corporate and individual members. Members of the GAC are recognised professionals who have practical experience with their respective industry's rapidly changing operation. A key aim of GAC is to ensure a professional code of practice, as well as the well-being and prosperity of consultants in Ghana.

The sixth source of contact was the Ghana Association of Women Entrepreneurs (GAWE). GAWE was established through the initiative of the United Nations Economic Commission for Africa (UNECA) in 1993. It is made up of more than 500 self-employed women manufacturers and exporters of goods and services. It aims at facilitating the development of women entrepreneurs through capacity building with support policies that would enhance active participation of Ghanaian women in both the national and the global economy such as the United Kingdom, United States, Germany, France, Japan, China and others. Besides these organisations, other associations and unions were also contacted. Having determined the criteria for sampling the population and the mode of having access to these entrepreneurs, the next section outlines the research design.



### **5.5. 6 Research Design**

In ensuring that the survey sampling was the representative of the population, the researcher grouped the population into a stratum. The advantage of forming the strata was to enable the researcher have an easy choice of selecting businesses from any of the groups. From the list provided by the associations, agents and banks, stratified random sampling frames of businesses were constructed comprising of: location, size and sector (Scheaffer et al., 1996). The use of a stratified random sampling was adopted for the reasons of ensuring adequate representation of all sub-groups in the population, for administrative convenience, to meet the time schedule, to provide cost reduction and to achieve an increase in precision of the estimates. Thus, as stated by Fowler (1988 pp. 25) “stratification only increases the precision of estimates of variables to which the stratification variables are related”. Also, stratification may be employed to produce an increase in precision of the representative of the population (Cochran, 1977 pp. 89).

The survey demarcated the six districts within the Greater Accra Region of Ghana into conurbation, large towns and small towns. Businesses located only within Accra and Tema in the Accra Metropolis District and Tema Municipal District respectively with a population of between 250,000 - 500,000 inhabitants were tagged conurbation. Businesses located outside Accra and Tema, but were within the Accra Metropolitan District (Accra), Tema Municipal District (Tema), Ga East District (Abokobi) and Ga West District (Amasaman) with a population of between 50,000 – 250,000 inhabitants were tagged large towns and businesses located within Ga East District (Abokobi), Ga West District (Amasaman), Dangme East District (Ada), Dangme West District (Dodowa) with a population of between 20,000 – 50,000 were

tagged small towns. The map of Ghana and the map of the six districts of the Greater Accra Region are shown below as figure 5.1 and figure 5.2 respectively.

Second, businesses were also stratified into sizes using the number of employees. There are no accurate or precise numbers in a sample for a given study. However, Fowler, (1988) has suggested that if the sample is too small, it is likely to affect the generalisability of the study. Some scholars have, however, offered useful mark-ups. In determining the sample size in a survey, several factors must be considered such as the type of research involved, the stated hypotheses of the study, the number of variables, the data collection methods, the required accuracy and precision levels, the relevance of the results, the time schedule and the financial requirements for the study (McMillan and Schumacher, 1989).

Third, regarding sector, businesses were stratified into agriculture, manufacturing and services. From the list of businesses provided by the associations and agencies, a stratified random sample of 1,200 independent small businesses was drawn up. From the drawn sample, 750 business founders or principal owners (entrepreneurs) accepted to participate in the survey, and to answering the questionnaire and granting interviews upon request.

Figure 5.1

**MAP OF GHANA SHOWING REGIONAL BOUNDARIES**

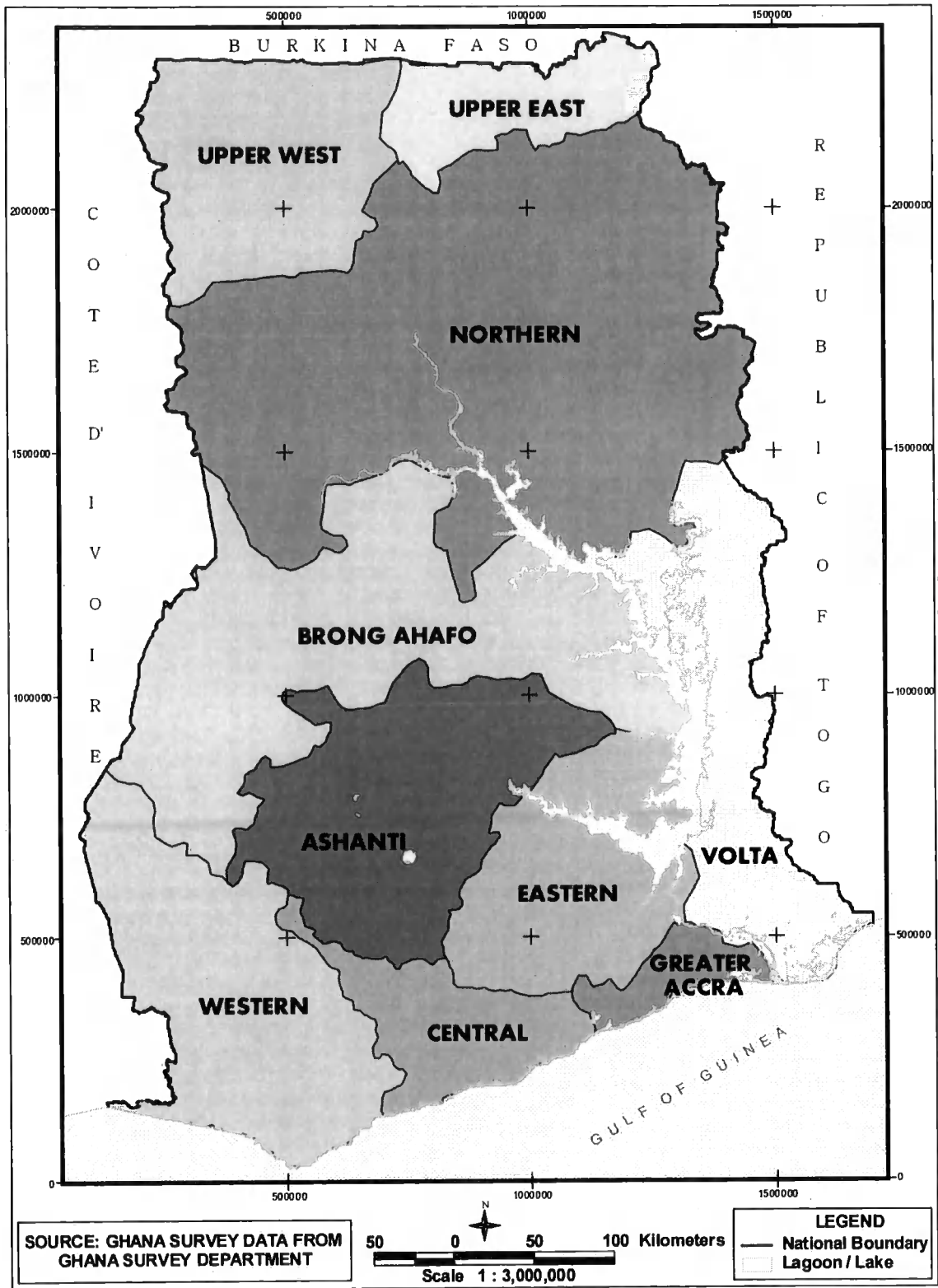
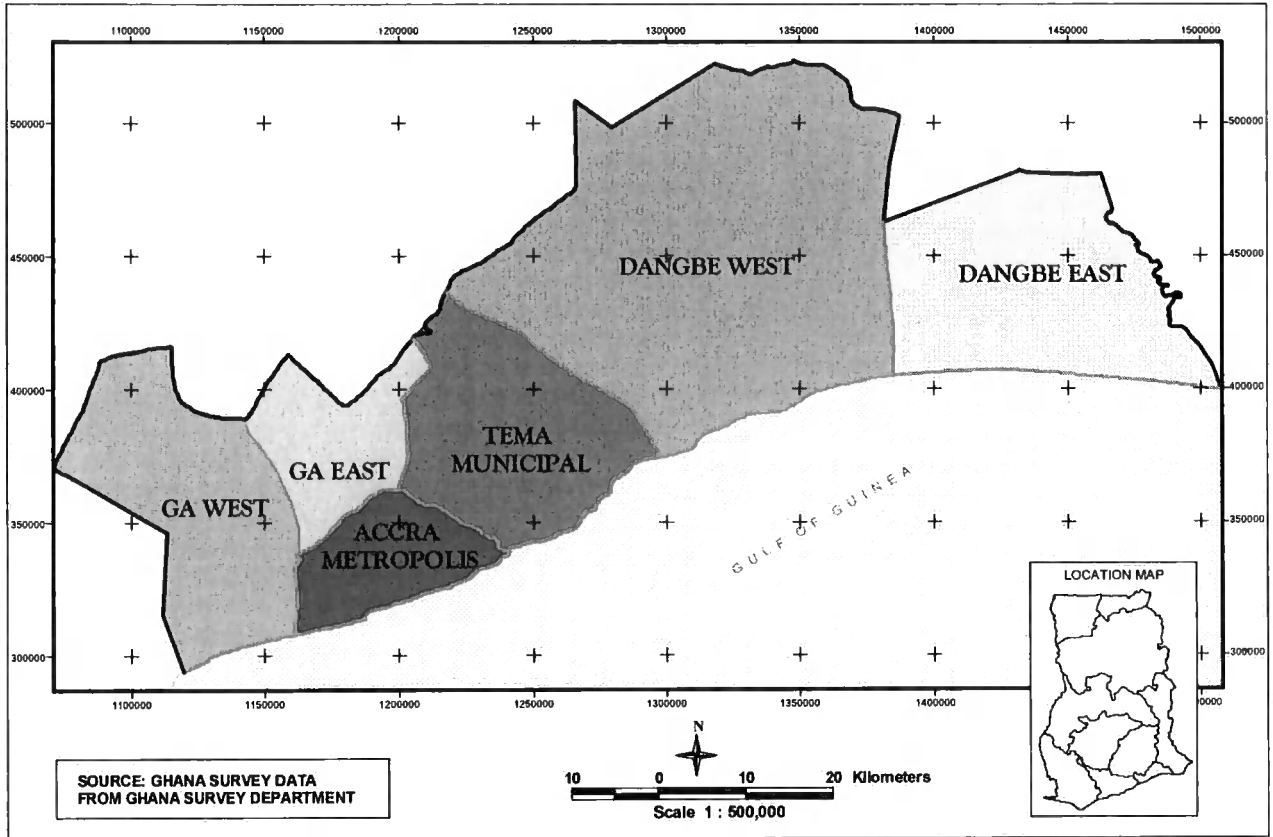


Figure 5.2

**MAP OF GREATER ACCRA REGION SHOWING DISTRICTS**



The research designed for conducting the survey focused mainly on the location, size and sector of the small business. The next section outlines the structure of the questionnaire for both the small businesses and the bank managers.

## **5.6 The data collection instruments**

### **5.6.1 Structured questionnaire**

Taking into consideration the large sample required to give a representative view pertaining to small businesses access to credit facilities, the survey opted for the use of structured questionnaires instead of unstructured questionnaires. Secondly, it is much easier to analyse a structured questionnaire than an unstructured questionnaire. Thirdly, different interviewers were to administer the questionnaire at different locations and to reduce the likelihood of bias from interviewing variations the survey opted for a structured questionnaire.

In constructing the structured questionnaire, the survey adhered to three principles namely focus, wording and structure (Gill and Johnson, 1997). Consideration was given to the hypotheses to be tested and the issues to be addressed. It therefore focused on the major questions the survey wished to address; identifying the sources of start-up finance for small businesses; testing for the presence of credit rationing amongst novice, serial and portfolio entrepreneurs; identifying the impact of geographical distance and business information on the availability of bank credit to habitual entrepreneurs; and ascertaining the impact of adverse selection and moral hazard on bank financing small businesses.

Secondly, consideration was given to the wording of the questions. It was ensured that the questions were as simple as possible, that they did not lose their focus

and intended purpose and where necessary certain terminologies were defined and explained for easy understanding by respondents. As much as possible leading and empty questions were avoided. This was done by providing multiple choice answers, with some in scale form ranging from one to four points.

Thirdly, the questions were ordered in a well structured form keeping the length down to a practicable form. There were two sets of questionnaires one for the small businesses and the other the banks. The small business questionnaire contained six sections. Section A contained questions relating to the business characteristics namely, year of business establishment, what did the firm make or do, legal status, the number of employees and whether the firm was an exporter. Section B contains questions relating to business innovation and cooperation. Section C had questions relating to the business' sources of start-up capital. Section D was on the human capital resource of the business namely, sex, age, education and family background. Section E contained questions relating to lender-borrower relationship. Sections F had questions relating to credit rationing. Section G had questions relating to business information and geographical distance. Lastly, section H had questions relating to collateral security.

The second questionnaire was for the banks, and this was made up of five sections. Section A contained questions relating to bank lending processes and factors influencing the lending decisions. Section B contained questions on bank's gathering of both 'hard' and 'soft' information from entrepreneurs. Section C focused on issues relating to information asymmetry, risks and uncertainties in the bank lending process. Section D contained questions relating to the bank-borrower relationship and the issues on trust. Section E had questions on collateral and credit guarantees.

The sample data is limited to small businesses that have a deposit, service and credit relationship with formal financial institutions (banks, loans and savings companies, and non-banks – finance companies, leasing companies, brokerage firms and venture capitalists). The questionnaire included a series of questions on finance which allowed us to ascertain whether the businesses had applied for external finance and whether or not they had been totally successful, received less than they desired, or were totally unsuccessful; and, whether they had been discouraged from applying for external finance when they warranted receipt of credit; and the remainder had no need, or no case to apply for external credit.

The questionnaire contained questions which allowed the researcher to know the business sector in which they operated, their size in terms of the number of employees, their geographic location within the region and whether they were in a conurbation, large town or small town, and also the age of the business. The entrepreneurs were asked to indicate whether they had introduced an innovation to their business with regard to their products and services, and another looked at whether they had introduced an innovation in their processes. Other questions covered employment growth, and exporting activity. Whilst for the entrepreneurs' questions there were questions on their age, sex, educational background, and entrepreneurial experience. The sample was deliberately focused upon businesses which employed between 4-50 employees because these are the type of businesses which are the target of Ghanaian government policies.

The above search has outlined the detailed structure of the questionnaire. The next section provides descriptions and explanations adopted by the study to measure the dependent variable, independent variable, control and demographic variables.

## **5.7 Measures**

### **5.7.1 Dependent variables**

#### **5.7.1.1 Sources of start-up capital**

The formation and growth of small businesses are dependent on their access to start-up capital (Curran and Blackburn, 1993; Hernandez-Trillo et al., 2005). Businesses that lack access to capital are more likely to encounter major obstacles to their growth and development (Schreiner and Woller, 2003). To examine the sources of start-up capital of small businesses, the survey questionnaire asked respondents to indicate their source of start-up for their business and also to indicate the principle source among these sources used. The respondents were presented with nine sources of start-up capital to choose from (own savings, pension, gifts from relations and friends, loans from relations and friends, bank loan, bank overdraft, supplier's credit, co-investors, and customer advance) and there was another category as a safeguard. Each respondent who reported a particular source(s) of start-up capital were allocated a score of '1' for each source. The other sources not reported were allocated a score of '0'.

#### **5.7.1.2 Credit rationing of the entrepreneur**

A number of surveys have identified access to finance as the major constraint to small business's expansion, growth and development (Steel and Webster, 1992; Levy, 1993; Pissarides, 1999; Okoh and Ping, 2000; European Commission, 2002a; van Eeden et al., 2003). In assessing the credit rationing of entrepreneurs, the study described a constrained business or entrepreneur as one that lacked the required credit



from the bank to undertake an investment drive for a positive returns (Winter-Nelson and Temu, 2005). The study further defined an unconstrained business as those businesses that indicated that they had no need for bank credit or those whose credit applications were approved (Bigsten et al., 2000). On the other hand, the study defined constrained entrepreneurs as those entrepreneurs with credit applications rejected by their banks (Jappelli, 1990; Levenson and Willard, 2000). Discouraged entrepreneurs were those entrepreneurs who felt their credit applications would be rejected and as such avoided the application (Jappelli, 1990; Bigsten et al., 2000; Levenson and Willard, 2000).

Respondents were presented with five sets of statement asking them to indicate whether they had applied for bank credit in the last year, last two years and last three years, never applied and discouraged. They were further asked to indicate whether they had received all the required credit they needed from their banks. In addition, respondents were asked to indicate whether they had experienced within the three year period any rejection to their credit application. Furthermore, respondents were presented with a set of possible occurrences to their credit application and were asked to indicate the number of times they had applied for credit within a particular year, whether they were successful by receiving full amount, reduced amount, and number of failures before success or never successful. Respondents were asked to report a 'yes' or 'no' to these questions and those who reported 'yes' to these questions were allocated a score of '1' and those who reported 'no' were scored '0'.

### **5.7.1.3 Geographical distance and credit rationing**

In measuring the geographical distance between the business and the preferred bank and the geographical distance between the business and the closest competitive

bank, respondents were asked 'how far is your business from your preferred bank?' Secondly, they were asked 'how far is your business from the closest competitive lending bank?' Respondents were asked to indicate the distances in kilometers. To measure the type of relationship between the entrepreneur and their preferred banks, respondents were presented with seven different types of relationship. The relationship could be a credit relationship (borrowing credit from the institution), a service relationship (purchasing an institution's financial products and services), and a deposit relationship (having a current or a savings account with the institution), or a combination of any of these relationships. Respondents who reported 'yes' to any particular relationship(s) were allocated a score of '1'. Relationships which were not reported were allocated a score of '0' for each respondent.

#### **5.7.1.4 Uncertainty and trust**

In evaluating the role trust plays in the lending decision of banks as they process small business credit applications, the study measured trust based on the study by Howorth and Moro (2006) and Nguyen et al. (2006). Respondents were asked to describe the bank's lending processes and factors influencing the lending decisions (Monge-Naranjo et al., 2001). Respondents were also asked to explain the steps they used in gathering information from the entrepreneur. Thirdly, respondents were presented with statements pertaining to information asymmetry, risks and uncertainties and were asked to indicate which of the statements influence credit availability.

Fourthly respondents were presented with statements pertaining to relationship lending to small businesses and collateral security and credit guarantees and were asked to indicate which of these statements influence the credit availability to the

entrepreneur. Respondents were not asked to comment directly on trust as their responses were more likely to be subjective rather than objective (Glaeser et al., 2000; Offe, 2001). The responses they provided regarding relationship and collateral were matched with the characteristics of trust, namely: reputation, similarity, ability, integrity, benevolence and communication.

## **5.7.2 Independent variables**

### **5.7.2.1 Entrepreneur**

Respondents were asked to indicate whether they had started a new venture for the first time, had ever sold or closed a previous venture before starting a new one or maintaining the previous one and starting a new venture. A dummy variable of whether or not the entrepreneur was a habitual or a novice entrepreneur was included in the model.

#### *(i) Habitual entrepreneur*

Respondents who reported having prior business ownership experience with the capacity to start new businesses and launch new products were coded as habitual entrepreneurs (Westhead et al., 2005b). Habitual entrepreneurs were separated into portfolio and serial entrepreneurs.

#### *(ii) Portfolio entrepreneur*

Respondents who reported having prior business ownership experience and have started, inherited, purchased, acquired a new venture in addition to the existing one were coded as portfolio entrepreneurs (Westhead et al., 2005c).

### *(iii) Serial entrepreneur*

Respondents who reported having closed or sold previous business they owned and have started, inherited, purchased, or acquired a new venture were coded as serial entrepreneurs (Westhead et al., 2005b).

### *(iv) Novice entrepreneur*

Respondents who reported having no prior business ownership experience but have started, inherited, purchased, or acquired a new venture were coded novice entrepreneurs (Ucbasaran et al., 2001).

Three binary variables were computed. Serial entrepreneurs were allocated a value of '1', whilst other (i.e., novice and portfolio) entrepreneurs were allocated a value of '0' (SERIAL). Portfolio entrepreneurs were allocated a value of '1', whilst other (i.e., novice and serial) entrepreneurs were allocated a value of '0' (PORTFOLIO). Novice entrepreneurs were allocated a value of '1', whilst other (i.e., serial and portfolio) entrepreneurs were allocated a value of '0' (NOVICE). The SERIAL and PORTFOLIO variables were included in the regression models as HABITUAL entrepreneurs and the reference or excluded category was NOVICE entrepreneurs.

## **5.7.3 Control variables and demographic variables**

### **5.7.3.1 Education**

'Education is a key constituent of the human capital needed for business success' (Storey, 1994 pp.129). It is argued that education provides the basis for the acquisition of the required skills for business development and success. Davidsson and Honig (2003) noted that education can enable individuals to generate ideas and to

cope better with problems. Educational attainment was used as a proxy for the entrepreneur's human capital (Becker, 1975). The educational variable was coded in 9 categories from (no education, junior secondary school, senior secondary school, ordinary level, advance level, vocational and technical, professional qualification, first university degree, second university degree, and others). Respondents were presented with the above criteria and were asked to indicate their educational attainment. Respondents who reported 'yes' to a university degree were allocated a score of '1' (DEGREE) and those who reported 'no' were score '0'.

The number of years in business by the entrepreneur was used as a proxy for the entrepreneur's human capital (Becker, 1975). Work experience of entrepreneurs enhances their access to information and finance (Boden and Nucci, 2000). Respondents were asked to indicate the number of years in which they have been engaged in the business. The reported years was used as an indication of the level of experience of the entrepreneur.

### **5.7.3.2 Innovation**

Innovation is concerned with the application of new ideas. Often these ideas take the form of new products and services or new production processes. There is no universally utilized indicator of innovation (Cohen, 1995). Most innovation studies solely focus upon the latter technological innovations (Freel, 2005; Becheikh et al., 2006). Innovation also relates to new work practices and workforce organization, to new sources of supply or materials (or new ways of working with key suppliers), to the exploitation of new markets or means of reaching these markets (including innovations in marketing, selling and distribution) and to new administration and office systems (Cosh and Wood, 1998).

The latter types of innovation are relevant within a developing economy context because they can provide a platform for technological innovations and competitive advantage. A distinction can also be made between incremental and novel (or radical) innovation (Marvel and Lumpkin, 2007). Studies suggest that incremental innovation is more prevalent in developing nations (Oyelaran-Oyeyinka et al., 1996; Adebayo, 1997). Innovation activities are said to have a limited access to credit because they have poor collateral value and in the event of a commercial failure innovation has little salvage value (OECD, 2004b pp.8). Studies have shown that the factors that distinguish failed enterprises from surviving ones are the attainment of basic skills relating to human resources, finance, production, management and marketing by the entrepreneurs (Johnson et al., 1998; Baldwin et al., 1997).

Respondents were asked, "In the last 3 years, has your business undertaken any form of innovation as regard to seven statements relating to the following" – product or services, production processes (including storage), work practices or workforce organization, supply and supplier relations, markets and marketing, administration and office systems, and products or services distribution were presented (Cosh and Hughes, 1998). With reference to each statement the reported responses were coded as: innovation not tried scored as '1'; innovation tried and failed scored as '2'; innovation new to firm but not new to industry scored as '3'; innovation new to industry scored as '4'.

### **5.7.3.3 Exporting**

Entrepreneurs that have previously worked for large international organizations and conducted regular overseas travel may have accumulated broader market and technological knowledge (Buame, 1996; Hausman, 2005). This specific-

human capital can be leveraged to create and pursue new opportunities (Oyelaran-Oyeyinka et al., 1996). Export financing is the provision of credit facilities to meet the export requirements of exporters (Branch, 1995, Albaum et al., 1998). The inability of exporters to access export finance will very much affect their products and delivery (Morna et al., 1990). Respondents were asked 'is your business an exporter?' Entrepreneurs with no exporting experience were allocated a score of '0', whilst those citing exporting experience were allocated a score of '1' (Export).

#### **5.7.3.4 Sector**

The Ghanaian economy is basically driven by the agricultural, industrial and service sectors. According to an ISSER (2005) report on the Ghanaian Economy, the contributions of these three sectors were significant to the growth and development of the economy. The agricultural sector in particular is perceived to be a high risk sector and thus most banks and other financial institutions are unwilling to finance any project within the sector, even though its contribution to the national economy is significant (Aryeetey and Fenny, 2006).

In the questionnaire respondents were asked to indicate 'what does your business do or make?' Respondents who reported 'yes' to agricultural activities were allocated a score of '1', (AGRICULTURE) whilst 'no' were scored '0'. Respondents who reported 'yes' to manufacturing sector were allocated a score of '1' (MANUFACTURING) whilst 'no' were scored '0'. Respondents who reported 'yes' to services were allocated a score of '1' (SERVICES) whilst 'no' were scored '0'. Manufacturing and service dummies were included in the models and the excluded comparison variable dummy was the AGRICULTURE sector.

### **5.7.3.5 Size**

The size of a business determines the source of finance used by the business at start-up and also access to external finance (Aryeetey et al., 1994; Nissanke, 2001; Hernandez-Trillo et al., 2005; Kutsuna and Honjo, 2006). The size of the business was measured by the number of employees as at the time of the survey. Respondents were asked to indicate the number of employees in their business as at the time of responding to the questionnaire. The responses reported were coded into three categories. Using dummy variables of micro, small and medium, respondents who reported employees numbers of between 4 and 9 were coded MICRO business. Respondents who reported employee numbers of between 10 and 19 and those who reported between 20 and 50 were coded SMALL and MEDIUM size businesses respectively.

### **5.7.3.6 Location**

The location variable saw two dummy variables of conurbation and small towns included in the models. The excluded comparison dummy variable was those businesses located in large towns. The location variables were used as indicators of the location of the small businesses. The survey demarcated the six districts within the Greater Accra Region of Ghana into conurbations, large towns and small towns, respectively. Businesses located only within Accra and Tema in the Accra Metropolis District and Tema Municipal District, respectively, with a population of between 250,000 - 500,000 inhabitants were tagged as CONURBATION. Businesses located outside Accra and Tema, but which were within the Accra Metropolis District (Accra), Tema Municipal District (Tema), Ga East District (Abokobi) and Ga West District (Amasaman) with a population of between 50,000 – 250,000 inhabitants were



categorised as LARGE TOWN and businesses located within Ga East District (Abokobi), Ga West District (Amasaman), Dangme East District (Ada), Dangme West District (Dodowa) with a population of 20,000 – 50,000 inhabitants were categorised as SMALL TOWN. 48.8% of the entrepreneurs were from conurbations, 24.2% were from large towns and 27.0% were from small towns. The variables capturing demographic characteristics included: general human capital: education, gender, age of the entrepreneurs, and relative role models.

#### **5.7.3.7 Employment growth**

Storey (1994) identified three basic constraints that affect the growth of small businesses. These are finance, labour market issues and markets. Hall et al., (2004) argued that the growth of small businesses is likely to exert pressure on the internally generated funds and force the firm into borrowing. Growth is measured by absolute (t2-t1) measures (Davidsson and Wiklund, 2000). In the questionnaire, respondents were asked to indicate the number of employees they have at the time of the survey, a year before the survey, and three years before the survey.

#### **5.7.3.8 Gender**

A male or female entrepreneur in this study is referring to 'a person who has initiated a business, is actively involved in its management, and owns a majority share of the enterprise' (Marlow and Patton, 2005 pp. 718). The sex of the entrepreneur, by and large, influences access to and use of external finance (Birley et al., 1987; Van Uxem and Bais, 1996). Traditionally with regard to education and training, women are associated with lower levers of human capital (Becker, 1993). In accessing finance female entrepreneurs are expected to encounter several challenges compared to male

entrepreneurs (Verheul and Thurik, 2001). Male entrepreneurs are expected to have better access to external sources of finance compared to female entrepreneurs.

Various reasons account for this trend, notably the lack of collateral (Zeller, 1994; Baden, 1996), the nature and type of work (Van Uxem and Bais, 1996; Carr et al., 2000; Van Straveren, 2001), the acquisition of relevant experience (Cooper et al., 1994), the lack of a proven track record and access to information about financial sources, products and services (Kashuliza and Kydd, 1996; Atieno, 2001). Respondents were asked to indicate their sex. Male respondents were allocated a value of '1' and female respondents a value of '0'.

#### **5.7.3.9 Age of the entrepreneur**

Older entrepreneurs generally have more work experience (Aldrich, 1999). This experience can enable more mature individuals to accumulate skills required for firm ownership (Bates, 1990; Cooper et al., 1994). As part of the ageing process, an individual's human capital stock can depreciate over time. Middle-aged individuals may have more human capital (Cressy, 1996). The age of the entrepreneurs were coded in four binary indicators of age: 18-30 years, 31-45 years, 46-60 years and 61 or more years. The age groupings were adopted because it is quite difficult to have entrepreneurs indicating their exact age, but they were willing to indicate their age group. The reference category was Age 46-60 years. In the questionnaire, respondents were asked 'which age group do you belong?' The respondent's reported age group was allocated a score of '1' for a 'yes' response and '0' for a 'no' response.

### **5.7.3.10 Relative role model**

Curran et al. (1991) noted that individuals with parents as owners of businesses were more likely to follow the footsteps of their parents by owning their own business. It is argued that entrepreneurs with a relative role model engaged in business are risk averse and fear losing control of the business (Sonnenfeld and Spence, 1989). They also prefer minimising risks and maintaining family reputation, independence and control of their business (Neubauer and Lank, 1998; Romano et al., 2000). Respondents were asked to indicate whether they had family members involved in business in the past. Respondents who reported 'yes' were allocated a score of '1' and those who reported 'no' were allocated a score of '0'. Respondents were also asked to indicate whether they had any family member employed in their business. Respondents who reported 'yes' were allocated a score of '1' and those who reported 'no' were allocated a score of '0'.

In addition, the concept of specific human capital variables were operationalised in entrepreneurial prior work experience, innovation and exporting.

### **5.7.3.11 Age of business**

Age is a determining factor in small business' access to bank credit (Abor and Biekpe 2006). Hall et al. (2004) asserted that older businesses possess good track records, more internally generated profit and are therefore less likely to apply for external finance. The age of the business were measured by the year in which the business was established. Two dummy variables were incorporated for the age of business. Businesses age between 0 years and 5 years was termed YOUNG business and all other businesses above 5 years were termed OLDER business.

### **5.7.3.12 Distance variables**

For each entrepreneur, the geographical distance is calculated for the business-preferred bank branch and the business – closest competitive bank branch located in the same community as the entrepreneur. During the survey, 129 bank branches were identified, operated by 30 different financial institutions comprising of 23 Commercial Banks, 6 Rural Banks and 1 Savings and Loan Company located in the 6 districts of the Greater Accra Region. The geographical distance between the business and their preferred bank branch and also between the business and the closest competitive bank branch was determined by asking respondents to indicate the distance in kilometers between their respective banks (G11 and G12). Thus, each respondent provided information on the distance between their preferred bank branch and also the closest competitive bank branch. The distance in kilometers between the business and their preferred bank ranged from 0.0 kilometers to 45.0 kilometers and the closest competitive bank branch ranged from 0.0 kilometers to 40.0 kilometers.

Alternatively, the geographical distance between their business and their preferred bank, and their closest competitive bank branch could have been measured on the basis of the entrepreneurs providing their office location and indicating the location of the bank. This information would then have been linked to its geographical co-ordinates using Geographical Information Software (GIS) and the distance measured in kilometers. The problem, however, with this method is that postal codes in Ghana are either non-existence or unreliable, and, hence the adoption of the first method by asking respondents to indicate the geographical distance.

### **5.7.3.13 Social capital**

Public and private sector practitioners can be a source of bridging social capital. Respondents were asked to indicate whether “in the last 3 years, has your business co-operated with other businesses or organizations for innovation related activity (including marketing, training, production techniques, management training and / or technology)”. Those who reported a ‘yes’ response were provided with a list of ten specified public and private sector firms and organization that had been utilized. In addition, respondents were asked to specify the name of ‘other’ organizations used. A distinction was made between public (i.e., NBSSI, IFC) and private sector (customers, suppliers, competitors and other firms, Empretec Ghana Limited, Technoserve Ghana Limited, APDF) sources of assistance.

Entrepreneurs that had not used any sources of external support, those that solely used private sector organizations and those that used a mixture of public and private sector organizations were allocated a value of ‘0’, whilst those that had solely used public organizations were allocated a value of ‘1’ PUBLIC ONLY. Respondents that did not use any sources of external support, those that solely used public sector organizations and those that used a mixture of public and private sector organizations were allocated a value of ‘0’, whilst those that solely used private sector organizations were allocated a value of ‘1’ PRIVATE ONLY. Entrepreneurs that did not use any support from public and private organizations and those that solely used support from a public or private organization were allocated a value of ‘0’, whilst those that used support from a mixture of public and private organizations were allocated a value of ‘1’ PUBLIC AND PRIVATE.

#### **5.7.3.14 Uncertainty and trust variables**

The concept of trust is not an objective phenomenon, making its understanding, interpretation and measurement a very difficult task. The meaning of trust differs from country to country and from culture to culture (Welter and Smallbone, 2006). The empirical methods used by scholars in measuring trust vary from one study to the other. In large scale surveys, respondents have been questioned about their opinion on whether they trust a person or not. For example, “Do you trust your boss to honour his promise”. The behavioural validity of these methods of measuring trust has been questioned by some scholars as they argue that these questions measure trustworthiness rather than trusting behaviour (Glaeser et al., 2000).

Other scholars have emphasised the gradual process of developing trust which is often based on habits and norms and argued that trust cannot be observed in a single behaviour (Smallbone and Lyon, 2002). Offe (2001) disagrees with the use of direct trust questions in view of the varying cultural differences. Scholars also differ in the approach to be adopted in measuring trust. Whilst some scholars use quantitative methods, others prefer qualitative methods. Depending on the researcher and the type of research being carried out, one could use either a quantitative or a qualitative approach. For the purposes of this chapter which is based on exploring the role of trust in the bank-entrepreneur relationship, the researcher adopted a qualitative approach (Howorth and Moro, 2006; Nguyen et al., 2006).

The primary data from the bank questionnaire was compiled from an in-depth interview of Credit Managers of the various Banks in Ghana. There were 23 banks in Ghana as at the time of the study. The in-depth interview of Credit Managers in 20 of the 23 banks was conducted between February 2007 and April 2007. The remaining

three banks have not been in existence for up to a year at the time of the survey, so they were excluded. To gain access to the Credit Managers, the researcher contacted the Managing Directors of these banks by an introductory letter apprising them of the nature of the research (Uzzi and Lancaster, 2003). A request was made for an interview with the head of the credit or Small and Medium-size Enterprise (SME) department of each bank. The methodology adopted for this chapter was similar to earlier studies by Berry et al., (1993a; 2004); A summary of the key characteristics of the banks interviewees are presented in table 5.1 below.

In order to collect specific responses from the respondents, the researcher adopted a one-hour face-to-face in-depth interview using semi-structured questions as a guide and also for uniformity. The questions were relatively open-ended which allowed for follow-up questions where necessary. The interview process began with questions about the interviewee's background and experience. The second stage of the interview concentrated on the lending process towards lending decisions (Monge-Naranjo et al., 2001). In section A the interviewee was asked to describe the bank's lending processes and factors influencing the lending decisions. Section B contained questions on how banks gathered information to make lending decisions. Section C focused on issues on information asymmetry, risks and uncertainties banks encounter in their lending process. Section D covered issues on relationship lending to small businesses. Section E was on collateral security and credit guarantees. The questionnaire did not raise the issue of trust directly simply because when participants in an interview are asked about matters relating to trust, their responses are subjective rather than objective (Glaeser et al., 2000; Offe, 2001).

**Table 5.1: Summary of the Key Characteristics of Interviewees**

<b>Bank</b>	<b>Types</b>	<b>Job Title of Interviewee</b>	<b>Sex</b>	<b>Number of Years in Banking</b>
A	Commercial Banking	Head of SME Banking	Male	6
B	Commercial Banking	Head of SME Banking	Female	2
C	Commercial Banking	Deputy Head SME Banking	Female	15
D	Agriculture Banking	General Manager Credit	Male	20
E	Investment Banking	General Manager Credit	Male	25
F	Merchant Banking	Head of SME Banking	Female	13
G	Commercial Banking	Head of SME Banking	Female	20
H	Merchant Banking	Senior Relationship Manager	Male	10
I	Merchant Banking	Head of SME Banking	Male	7
J	Merchant Banking	Deputy Head of Credit	Male	6
K	SME Banking	Head of SME Banking	Male	8
L	Commercial Banking	Head of Credit	Male	12
M	SME Banking	Head of SME Banking	Male	10
N	SME Banking	Head of Credit	Male	11
O	SME Banking	Head of SME Banking	Male	6
P	SME Banking	Head of SME Banking	Male	5
Q	Real Estate	Head of Credit	Male	8
R	Commercial Banking	Head of SME Banking	Male	9
S	Commercial Banking	Head of SME Banking	Male	10
T	Commercial Banking	Head of SME Banking	Female	7



**Table 5.2: Coding Schemes for Bank Lending Process**

Lending Process	Description of variables	Objective
Information gathering	Collecting private information on the characteristics of the entrepreneur, the business and also from third party referrals	Build relationship, determine reputation, and integrity of entrepreneur
Screening	Analysing financial statements for past financial performance and business plans for future cash flow probabilities	Assessment of ability and evaluation of performance
Security	Seeking to ensure that even in the event of failure, bank can obtain some returns from the sale of entrepreneur's collateral offered	Determine capacity to cover facility in the event of a default
Monitoring	Ensure that entrepreneur takes those actions that will make repayment most likely	Ensure repayment is on schedule

**Table 5.3: Coding Schemes for Developing Trust in Relationship Leading**

Variables	Definition of variables	Characteristics of trust
Duration	Length of banking relationship with the entrepreneur	<ul style="list-style-type: none"> <li>• Information</li> <li>• Integrity</li> <li>• Consistency</li> </ul>
Scope	Scope of financial services offered the entrepreneur	<ul style="list-style-type: none"> <li>• Similarity</li> </ul>
Account	Quality and trend of entrepreneur's account	<ul style="list-style-type: none"> <li>• Reputation</li> </ul>
Experience	Education and experience of entrepreneur	<ul style="list-style-type: none"> <li>• Ability</li> <li>• Reputation</li> </ul>
Capacity	Repayment ability of the entrepreneur	<ul style="list-style-type: none"> <li>• Ability</li> <li>• Benevolence</li> </ul>
Performance	Past track record of the entrepreneur	<ul style="list-style-type: none"> <li>• Ability</li> <li>• Reputation</li> <li>• Integrity</li> </ul>
Security	Provide collateral to secure credit facility	<ul style="list-style-type: none"> <li>• Integrity</li> <li>• Benevolence</li> </ul>

**Table 5.4: Coding Schemes for Developing Trust in Collateral Leading**

Variables	Definition of variables	Characteristics of trust
Cash /Near Cash	Financial Instruments - T-bills, Shares, Bonds provided by the entrepreneur	<ul style="list-style-type: none"> <li>• Ability</li> <li>• Integrity</li> <li>• Benevolence</li> </ul>
Outside Collateral	Entrepreneur's home/flat	<ul style="list-style-type: none"> <li>• Benevolence</li> <li>• Reputation</li> </ul>
Inside Collateral	Small Business's buildings, plant and equipment, vehicle	<ul style="list-style-type: none"> <li>• Reputation</li> <li>• Benevolence</li> </ul>
Institutional Guarantee	Credit Guarantee Scheme	<ul style="list-style-type: none"> <li>• Ability</li> <li>• Reputation</li> <li>• Referrals</li> </ul>
Personal Guarantee	Third Party guarantee	<ul style="list-style-type: none"> <li>• Referral</li> <li>• Reputation</li> <li>• Integrity</li> </ul>

**Table 5.5: Summary of Coding Schemes for Responses to the Questions**

**Uncertainties and Trust in Lending Decisions**

Process	Uncertainties	Relationships	Trust
	No. of Respondents	No. of Respondents	Collateral No. of
<i>Respondents</i>			
<i>Lending process</i>			
• Information	15	-----	-----
• Screening	12	-----	-----
• Interest rate	7	-----	-----
• Security	18	-----	-----
• Monitoring	12	-----	-----
<i>Relationship Characteristics</i>			
• Duration	-----	15	-----
• Scope	-----	8	-----
• Account	-----	10	-----
• Education	-----	14	-----
• Ability	-----	20	-----
• Reputation	-----	15	-----
<i>Collateral Characteristics</i>			
• Cash	-----	-----	15
• Outside collateral	-----	-----	13
• Inside collateral	-----	-----	11
• Institutional guarantee	-----	-----	17
• Personal guarantee	-----	-----	9

The responses provided were hand recorded and this information was later coded (Howorth and Moro, 2006). The coded data was summarised as: information gathering, screening, collateral assessments, approval process and monitoring as shown in Table 5.2 above. Two forms of variables were identified using relationship elements and forms of collateral to develop trust characteristics. The relationship variables included: duration, scope, account, experience, capacity, performance and security as presented in Table 5.3 above. The collateral variables included cash, outside collateral, inside collateral and guarantee as presented in Table 5.4 above. The responses of the bank interviewees are presented in Table 5.5 above.

### **5.8 Piloting and screening**

The pilot study was conducted with academics, experienced bankers, business executives, and entrepreneurs (Boocook and Shariff, 2005). The objectives were: firstly, to ensure the comprehensibility of entrepreneurship, innovation and finance among Ghanaian entrepreneurs, and, secondly to assess the content and face validity of the survey. A few suggestions were made by the respondents regarding the length, form, content, and phrasing of some questions. Modifications and refinements to the questionnaire were subsequently made (Westhead et al., 2005a). Having being satisfied with the responses on the piloting process, the questionnaire administration and in-depth interview were carried out. The next section examines these methods.

## **5.9 Questionnaire administration**

The survey adopted a face-to-face administering of the questionnaires using three trainee researchers in addition to the researcher. The approach has the advantage of ensuring a higher response rate and also to collect as much as possible vital information and responses compared to the mailing and postal methods. The advantages of using this approach include: (i) easy collection of responses within a locality over a short period of time; (ii) doubts about specific responses can easily be clarified on the spot; and (iii) the research has the opportunity to introduce the research topic, its purpose and significance and also motivate the respondent to participate.

In Ghana postal questionnaires are not a culturally acceptable methodology – there is a reluctance to complete such postal questionnaires because some entrepreneurs are reluctant in providing responses to questionnaires for fear of giving away some vital information to state agencies, for instance the revenue agencies. However, a face-to-face introduction by one of the research team to explain the survey and why they were being asked to participate soothed away anxieties. To achieve this purpose, introductory letters were then sent to the heads of the various associations, agencies and groups in December 2006 seeking permission to administer questionnaire to the members. The approval of this request made access to their members much easier as the endorsement from the executives received acknowledgment from the members. Without this endorsement most of the businesses engaged in manufacturing and consultancy services would have declined participation. Another batch of introductory letters were sent to all the financial

institutions operating in the country in December 2006 seeking permission to administer questions to the head of credit department or the head of the small and medium-size enterprises department of the bank.

Before the questionnaire administration began, a three-day training programme was organised for the interviewees on the structure of the questionnaire and the mode of interviewing and questionnaire administration. After the first two days briefing on the context of the questionnaire, the interviewees and the researcher had a practical sample on the administering questionnaire on the third day.

Having sought permission and receiving the support of the leadership of these association and institutions, the questionnaires were distributed using a stratified random sampling approach between January 2007 and May 2007. The distribution followed a stratification of size, sector and location. In order to have an efficient and cost effective survey, the distribution of the questionnaire was done on a locality basis. The researcher moved from one locality to another distributing questionnaire to small business entrepreneurs that fell within the criteria. At the business premises the researcher will introduce himself, show an introductory letter from Durham University and where necessary a note from the businesses' association leadership. The researcher will then seek permission to conduct a 60 minutes standardized face-to-face administration of the questionnaire. However, if the entrepreneur is not ready, the researcher books an appointment and makes at least two telephone reminders.

On the other hand, some entrepreneurs requested the questionnaire be left behind and be allowed some time to personally fill the questionnaires and offered to

grant an interview to the researcher for clarification and any additional information requested (Rauch et al., 2005). Since the data from the survey was to be treated quantitatively, all the researchers were to stick closely to the structured questionnaire in order to generate equivalent responses.

### **5.9.1 Questionnaire sampled**

From an initial sampling list of 1,200 entrepreneurs, a stratified random sample of 750 small business entrepreneurs was drawn (Hair et al., 1995). In total, 522 entrepreneurs completed the questionnaire. 9 responses were eliminated businesses were found to have fallen outside the selection criteria. A further 13 responses were eliminated because of non-completion. An additional 4 responses were excluded for inconsistencies in their responses. A final response of 496 was used for the study representing a 66% response rate. During the survey, 129 bank branches were identified, operated by 30 different financial institutions comprising of 23 commercial banks, 6 rural banks and 1 Savings and Loan Company located in the 6 districts of the Greater Accra Region.

In total, the survey of 496 small businesses entrepreneurs produced 169 micro-sized enterprises (34%), 136 small-sized enterprises (27%) and 191 medium-sized enterprises (39%). 87 businesses were from the agricultural sector (17%), 264 businesses were from the manufacturing sector (53%), and 149 businesses were from the services sector (30%). Regarding location, the survey produced 244 businesses located in conurbations (49%), 121 businesses were located in large towns (24%), and 135 businesses were located in small towns (27%). The survey



also produced 298 businesses owned by novice entrepreneurs (60%), 198 businesses were owned by habitual entrepreneurs of which 61 businesses were owned by serial entrepreneurs (12%), and 137 businesses were owned by portfolio entrepreneurs (28%).

In addition, 384 of the respondents were male entrepreneurs representing (77%), whilst 112 respondents were female entrepreneurs representing (23%). The survey identified 169 respondents representing (34%) with 4-9 employees (micro-size), 136 respondents representing (27%) with 10-19 employees (small-size) and 191 respondents representing (39%) with 20-50 employees (medium-size). 179 respondents representing (36%) indicated they had started or purchased the surveyed business with others. On average, the survey businesses employed 19 employees (standard deviation of 13). The average age of the surveyed business was 13.2 years old (standard deviation of 8).

### **5.9.2 The in-depth interviews**

The primary data for the bank survey was conducted using a semi-structured questionnaire which was administered to the Credit Managers of the various banks in Ghana. 20 out of a total of 23 banks in Ghana as at the time of the survey participated in the in-depth-interview. The Credit Managers were interviewed between February 2007 and April 2007. The remaining three banks were excluded because they had not been in existence for up to a year at the time of the survey. In gaining access to the Credit Managers, the researcher contacted the Managing Directors of these banks using an introductory letter appraising them of the nature of

the research (Uzzi and Lancaster, 2003). A formal request was made for an in-depth interview with the head of the credit department or the head of the small and medium-size enterprise department of each bank. Each interview was conducted within 60 minutes and the qualitative data collected was used for the bank lending decision investigations.

Besides the bank interviews, other interviews were conducted on small business entrepreneurs in order to supplement the responses on the questionnaire and to eliminate any self administered questionnaires by the three trained interviewee. The researcher conducted a random selection of respondents for an in-depth interview to ascertain the truth or otherwise of the responses and also to further understand the nature of small business financing and credit rationing in Ghana. Separate interviews with some selected entrepreneurs were costly in terms of time and resources, but the responses were beneficial to the survey data required. To confirm views expressed by the respondents, the researcher collected some supporting documents with an assurance of confidentiality. In-depth interviews were held with Credit Managers of the banks listed below:

- (1) Ghana Commercial Bank Ghana Limited
- (2) Barclays Bank Ghana Limited
- (3) Standard Chartered Bank Ghana Limited
- (4) Agricultural Development Bank Ghana Limited
- (5) National Investment Bank Ghana Limited
- (6) Merchant Bank Ghana Limited

- (7) Societe General – SSB Ghana Limited
- (8) Ecobank Ghana Limited
- (9) The Trust Bank Ghana Limited
- (10) Prudential Bank Ghana Limited
- (11) Stanbic Bank Ghana Limited
- (12) International Commercial Bank Limited
- (13) CAL Bank Ghana Limited
- (14) Amalgamated Bank Ghana Limited
- (15) UniBank Ghana Limited
- (16) HFC Bank Ghana Limited
- (17) Metropolitan and Allied Bank Ghana Limited
- (18) United Bank for Africa Ghana Limited
- (19) Guaranty Trust Bank Ghana Limited
- (20) Zenith Bank Ghana Limited

Besides, these interviews, heads of the following associations were also interviewed.

- (1) Association of Ghana Industries (AGI)
- (2) Federation of Association of Ghana Exporters (FAGE)
- (3) Ghana National Chamber of Commerce and Industries (GNCCI)
- (4) Ghana Export Promotion Council (GEPC)
- (5) The Ghana Association of Consultants (GAC)
- (6) Ghana Association of Women Entrepreneurs (GAWE)
- (7) National Chairman, Ghana Fishermen Association
- (8) National Chairman, Ghana Poultry Farmers Association

In carrying out the fieldwork, the researcher adopted some practical measures in order to reduce the non-response bias. The next section examines these steps.

### **5.10 Examining non-response bias**

Bose (2001 pp. 1) defined non-response bias as 'the difference between a survey estimate and the actual population value'. Bias is the expected value from the differences between the survey estimate and the actual population. There are two components associated with non-responses bias; the amount of non-response and the differences in the estimate between the respondents and non-respondents. Bias can be associated with low response rates and strong differences in the estimates between respondents and non-respondents. Due to nonresponses at different levels of the survey, estimates can be subject to bias.

Scholars have outlined three main methods of estimating non-response bias: comparing known values with the population, subjective estimates and extrapolation (Stephan and McCarthy, 1958; Kish, 1965; Bose, 2001). An examination of a non-responses bias is difficult when the expected value of the population is unknown. Higher responses rates are very useful in survey, even though they do not necessarily guarantee low bias. Following Krishnan et al. (2006) a number of steps were adapted to ensure that the data was of high quality and to reduce the non-response bias, the researcher utilised the following steps:

- Protection of respondent's anonymity

Respondents were assured of anonymity (Podsakoff et al., 2003) and given a promise of confidentiality of their responses. The introductory letter shown to each respondent indicated the purpose of the survey and the assurance of confidentiality.

- Pre-testing the survey on entrepreneurs

To ensure a reduction in statement ambiguity, a pilot study was carried out where pre-testing of the survey questionnaire on selected entrepreneurs were conducted (Tourangeau et al., 2000) to solve potential problems of face validity (Ucbasaran et al., 2006).

- Separation of statements

The researcher also ensured that the statements relating to the dependent variables were not located close to the independent variables on the questionnaire (Parkhe, 1993).

- Designed criteria

The survey was conducted using specified criteria to select respondents. These criteria were adopted to ensure equity and an even distribution of respondents. It was also done to reduce the non-response bias. The criteria included: employee size, sector and locations.

- Multiple and same modes of data collection

Both a structured questionnaire and an in-depth interviewing method were adopted in the data collection. Using a stratified random sampling method, all the selected respondents were given same questionnaire.

- Interviewer training

To enforce the above, the research team of three was given adequate training to ensure uniform administrating of questionnaire and interviewing procedures.

- Flexible scheduling

Also to assist in trying to achieve a higher response rate a flexible scheduling time policy was were allowed by the researcher to ensure that the respondents were ready and willing to provide relevant responses at their convenience.

The above approaches were adopted to provide a higher response rate not only for the entire sample, but also for the subgroups to minimise the variables of the response rates. In addition to the above approaches, combinations of parametric and nonparametric tests were used to investigate possible non-response bias. For the parametric test, a Bonferroni test was applied. Again, Mann Whitney and Kruskal-Wallis tests were applied for the nonparametric tests. No statistically significant response bias was detected regarding industry, standard government official region, legal form, age of the business and employment size between the respondents and nonrespondents at the 0.05 level or better. There is therefore no cause to suspect that

the sample of businesses is not a representative sample of the population of independent private business in Ghana.

After a successful data collection, the researcher organised a data presentation and analysis through data editing, coding, recording, processing and analysing the data to achieve results. The next two sections examined the data presentation and analysis.

### **5.11 Data presentation and Analysis**

Data analysis is an important stage of the research process. It begins with the design of the study; continues through the data collection process, after the data collection, it becomes the focus and is completed in the report writing. The data analysis for this research involves three major steps; data preparation, descriptive statistics and inferential statistics.

The data preparation for this research involved the editing, coding and entering the data into the computer which was then transformed into a database structure. Descriptive statistics was then used to describe the basic features of the data in the study to show a simple summary of the data. The central tendency - mean, range, standard deviation and the variance was used to examine how respondents have reacted to the questions and how well the participants have spread their responses. This test was vital in that it gave the researcher an idea about the wording of the question and the understanding of the respondents to the questions.

The inferences of the statistics was then linked to each of the specific hypotheses and questions set out for this study before making inferences from the

data to arrive at a more general condition. These analyses were conducted with the objective of getting a feel for the data, and testing for the goodness of data and the hypotheses. The survey gathered both quantitative and qualitative data for the research. Hence the research method used in the data analysis considered both research methods in deciding the type of data analysis to employ (Hussey and Hussey, 1997; Curran and Blackburn, 2001).

#### **5.11.1 Data editing, coding and recording responses**

After obtaining the data through questionnaires and interviews, the data was edited, coded, and keyed into the preferred software programme and then analysed. The data editing process had three main tasks: reading through each submitted questionnaire, handling identified problems, making updates and corrections. Extensive quality control procedures were used to enhance data dependability. These measures involved frequent consulting meetings with interviewers to check on progress of the survey, accurate data editing and coding procedures discuss areas of ambiguity, tracing and correcting errors, carefully checking updates and conducting computer checks for inconsistencies or illogical patterns in the data.

Some inconsistencies which could logically be corrected were immediately done, whilst others were referred back to the respondents for clarity and completion through either phone contacts or by revisiting their premises. However, those questionnaires with major omissions were either referred to the respondents for completion or were rejected or termed unusable where the omissions were about 30% or more. The major omissions were as a result of respondents not knowing the



answer, not willing to answer, or simply indifferent to the need to respond to the question(s).

To ensure a much easier coding, the researcher gave some thought to the coding at the questionnaire design stage. Two sets of questionnaires were used, one for the small businesses and the other for the banks. To begin with the questionnaires for each of the six districts in the Greater Accra Region housing the small businesses were given identity numbers; Accra Metropolis District (Accra) – 1000; Tema Municipal District (Tema) – 2000; Ga West District (Amasaman) – 3000; Ga East District (Abokobi) – 4000; Dangme West District (Dodowa) – 5000; and Dangme East District (Ada) – 6000. A questionnaire for the banks was coded 10000.

The Statistical Package for Social Scientists (SPSS), a well-known commercially available spreadsheet programme, was used in entering the set of coded data into the computer to form the data base. The SPSS software, was used because the software is one of the most widely used programme for statistical analysis in Social Sciences. Second, the software has data management and data documentation as one of the features. Thirdly, the software can be used in setting up both data files and files description.

### **5.11.2 Processing and data analysis**

In conducting the data analysis, the study used logit regression analysis to investigate the sources of start-up capital, the extent to which resources of the business and the entrepreneurs are associated with credit rationing and also to

determine the impact of geographical and functional distance, business information, and entrepreneur and business characteristics on small businesses access to bank credit. There were other statistical techniques which the researcher could have followed, such as probit and tobit regression analysis but logistic regression techniques were preferred for two main reasons. Firstly, it necessitated less stringent assumptions on the distribution of the independent variables. Secondly, the logit regression results are more comfortable to be interpreted and analysed.

Independent, control and demographic variables were reported with only models significant at the 0.05 level discussed. Deviance as indicated by the log likelihood coefficient is a 'badness-of-fit' measure, and weak 'explanatory' models generally report higher deviance coefficients. The pseudo  $R^2$  coefficient provides an indication of the 'explanatory' power of the model. While similar in principle to the adjusted  $R^2$  reported in ordinary least squares (OLS) regression models, non-OLS regression models generally report lower pseudo  $R^2$  coefficients (Hosmer and Lemeshow, 2000). The log likelihood coefficients and the pseudo  $R^2$  coefficients are reported.

In the collection, presentation and analysis of the data, certain steps were taken to ensure data validity and reliability. The next section examines these measures.

### **5.12 Validity and reliability of survey findings**

For a research study to be accurate, its findings must be reliable and valid. This is dependent on how good the study design was at reflecting how valid and

reliable the measurement of exposure factors and outcomes of interest and also the cooperation between the research team and the population sample. Validity is the best available approximation to the truth or falsity of a given inference, proposition or conclusion (Cook and Campbell, 1979). Reliability is the consistency of your measurement, or the degree to which an instrument measures the same way each time it is used under the same condition with the same subjects. In short, it is the repeatability of your measurement.

The instrument used in obtaining a valid (accurate) and reliable (precise) measurement is vital to the survey and the study results. An unreliable and invalid data resulting from systematic measurement errors may lead to a false estimation of a relationship (Davidsson, 2004). To avoid this and to ensure reliability and validity of the study results the following strategies were adopted to enhance the accuracy and precision of the survey.

Firstly, at every stage of the research, the methods of measurement were standardised. After a careful literature review, a structured questionnaire was designed to be administered by the research team. The questionnaire was structured in order to ensure consistency in questions to respondents and also to have reliable responses to be tested. Before the stratified random sampling was applied in the selection of respondents, a carefully thought criteria including size, sector, location were designed.

Secondly, the research team was trained on the various stages of the survey, the processes and the expectations from the survey. They were therefore certified as qualified before embarking on the survey. Before conducting the actual survey, a

sample survey was carried out with the research team to test the expected responses from the questionnaire, increase clarity and familiarity with questionnaire administration.

Thirdly, in testing for the validity of the study, the structured questionnaire was piloted with academics, business executives, bankers and entrepreneurs. Five each of these groups were given the questionnaire to review and post their comments. Comments on the length, form and structure were incorporated in the questionnaire review. This was done to improve consistency of measurement.

Fourthly, in managing the data collected, the questionnaire had to be edited, coded and entered into the software for the statistical analysis. To ensure uniformity and consistency, the researcher outlined the methods of editing, correcting, coding and entering the data.

Fifthly, to further enhance precision and accuracy, the researcher conducted a randomly selected interview on the population sample. This was done to ascertain the quality of information obtained, effect modification were necessary and correct any misclassification or misrepresentation in the earlier response.

In addition to the above measures, the results from the study were compared to those of others researchers who had undertaken similar studies and had adopted similar operationalisation strategy. The findings of this research were mostly confirmed by similar studies. This was most notable in three main areas (i) the results of the small businesses and their sources of start-up capital show that start-up businesses in Ghana have their financing preference following the pecking order theory. These findings complement those of previous studies (Acs, 1985; Findings

Africa Region, 1994; Aryeetey et al. 1994; Gray et al. 1997; Hamilton and Fox, 1998; Nissanke, 2001; Hernandez-Trillo et al., 2005; Kutsuna and Honjo 2006; Bhaird and Lucey, 2006). (ii) the results of credit rationing of novice, serial and portfolio entrepreneurs in Ghana show that habitual entrepreneurs were less likely than novice entrepreneurs to be credit rationed (Nissanke and Aryeetey, 1998; Bigsten et al., 2000). (iii) the results of the role played by habitual entrepreneurs, geographical distance and business information in commercial lending decisions show that entrepreneurs further away from their preferred bank branch and also their closest competitive bank branch are more likely to be credit rationed. Also the further away entrepreneurs are from their banks; the more likely the banks will have difficulties gathering soft information thus providing good proxies for banks to ration credit. These results are consistent with those of Petersen and Rajan (2002) who find that in the United States, businesses located further away from their banks are more likely to be credit rationed. Similar results were found by (Degryse and Ongena, 2005; Amel and Brevoort, 2005; Brevoort and Hannan, 2006; Agarwal and Hauswald, 2006. However, Carling and Lundberg (2005) indicate the absence of spatial credit rationing in Sweden.

Furthermore, the test for accuracy and precision was undertaken by the use of both bivariate and multiple regression analysis. The regression results confirmed the bivariate results. In undertaking the fieldwork, the researcher encountered some challenges. The next section examines these problems.

### **5.13 Problems encountered during the fieldwork**

- Difficulty in obtaining permission

Extreme difficulties were experienced in obtaining permission to interview entrepreneurs. For some respondents several visits and calls were made before an interview appointment was made.

- Difficulty in finding the geographical location of businesses

As experienced in most surveys, difficulties were encountered during the data collection period. First, the research team encountered some difficulties in accessing the geographical location of businesses. Even after the addresses and contact numbers of businesses have been secured, it was still difficult locating businesses because most streets in the region especially those in large and small towns were not named and numbered. Regarding the agricultural sector most entrepreneurs were sparsely located in remote areas and the distance between farms and between businesses in the small towns were far apart.

- Failure to keep appointment dates and time

Second, some respondents especially those in the manufacturing and services sectors and located in conurbations failed to keep their initial interview appointments with the research team after all the arrangements had been made. They were either out of the office or were engaged in meetings or simply gave an excuse

to rearrange another date. This therefore called for a second round of appointments to be fixed.

- Reluctance of respondents to grant audience or share information

The research team also encountered reluctance on the part of entrepreneurs regarding their cooperation and the provision of relevant information during the fieldwork. Some of the respondents declined to participate without a prior appointment, and some gave vague answers and figures, others were reluctant because of a fear that revealed information might be used against them as grounds for tax fraud charges. Some were hesitant to share information because they were unwilling to give out relevant information regarding the financing of the business to the interviewers.

- The need to interpret the questionnaire to some respondents

The presence of the researcher was required during the survey in mostly the small towns and within the agricultural sector. Most of the entrepreneurs in either the small town or within the agricultural sector had lower levels of education or no education at all. As such, the researcher was required to be present to interpret and explain the questions to the entrepreneur.

## **5.16 Conclusion**

The main focus of this study was to identify the presence of credit rationing among habitual and novice entrepreneurs in Ghana. The research methodology was chosen to fulfil the objective of this study in identifying the sources of start-up capital, the presence of credit rationing amongst entrepreneurs and the role of trust in bank lending decisions under conditions of uncertainty. The rationale for this study was to meet the outlined objectives and provide suitable recommendations to address the findings. In addressing the research questions a theoretical framework was developed which focused on human capital resource, social capital theory and entrepreneurship.

In choosing a research strategy, consideration was given to the most cost-effective and high result oriented approach (McNabb, 2004). The questionnaire design and the administration of the questionnaires were done inline with the objectives of the study. The focus, wording and structure of the questionnaire were to meet the set objectives (Gill and Johnson, 1997). Face-to-face questionnaire administration and in-depth interview approaches were selected based on their advantages such as: higher responses rate, lowering of sample frame bias, greater control, building good relationship with respondents and ensuring suitable responses as well as being cost effective (Czaja and Blair, 2005) compared to telephone and postal approaches (Walsh and Wiggins, 2003). For an objective, systematic, valid and reliable findings, a quantitative research technique was used for the first three empirical chapters. In view of the smaller number of banks available in Ghana a qualitative research technique was used for the fourth empirical chapter.



In the absence of a comprehensive list of small businesses in Ghana, the researcher had to negotiate with associations, agencies, groups and the banks to have access to the various entrepreneurs in a much easier way. The selection of the population for the survey was done with carefully considered criteria: businesses with 4-50 employees, those which were a year or older businesses, the entrepreneur must be an owner/manager of a privately owned business with location, size and sector under consideration. A pilot survey was carried out and the necessary changes were made before the main survey. In addition the research team were given adequate training to ensure efficiency and consistency. Data editing, coding, and recording of responses were done to ensure reliable data.

The measurement of the variables for the empirical analysis were grouped into dependent, independent, control and demographic variables. The dependent variables were sources of start-up capital, credit rationing of entrepreneurs, geographical distance and business information and uncertainty and trust. The independent variables included portfolio, serial and novice entrepreneurs, employment growth. The control variables included sector, size, age of business and location. The demographic variables included general and specific human capital, social capital, sex, age of entrepreneur, relative role model. The survey was not without challenges.

In total, 496 responses were received from an initial survey of 750 small business entrepreneurs drawn from comprehensive lists of 1200 businesses. Logit regression analysis was employed for the analysis of the data. In minimising the non-response bias and maintaining a reliable and valid measurements, the study

initiated a careful design criteria, trained the interviewees, used flexible appointment scheduling were necessary and pre-testing of questionnaire. There were difficulties in obtaining permission, keeping appointment time and difficulty in locating businesses.

The first five chapters of this study had looked at the introduction and overview of the study, the financing of small business entrepreneurs, the credit rationing of entrepreneurs, the entrepreneurship theories and the methodology adopted in gathering data for the empirical investigation. The next four chapters provide the empirical findings from the investigations and analysis carried out on the primary data collected. The last chapter then provides the conclusion and some outlined recommendation to the small business entrepreneur, practitioners and policy makers.

## Chapter 6

### Entrepreneurs and Sources of Start-ups Capital in Ghana

#### 6.1 Introduction:

The previous chapter has provided the reader with the methodology which was used. This chapter is the first of four empirical chapters which test various financial related hypotheses pertaining to habitual and novice entrepreneurship, and human capital theory. More specifically, this chapter explores entrepreneurs and the sources of finance for businesses at the start-up stage in Ghana.

One of the major expectations of start-up businesses is the promotion of economic growth through the creation of jobs and the introduction of innovative ideas (Birch, 1979; Acs and Audretsch, 1990; Kutsuna and Honjo, 2006). Access to start-up capital is vital for the formation and growth of small businesses (Curran and Blackburn, 1993; Hernandez-Trillo et al., 2005). The lack of start-up capital is a major obstacle to the development and growth of small businesses (Schreiner and Woller, 2003). Compared to established businesses, start-ups have no proven track record, credit history, reliable financial statements and most often lack the required collateral for securing external finance (Huyghebaert and Van de Gucht, 2007). The results of these contextual characteristics of start-up businesses are the unique problem of information asymmetry (adverse selection and moral hazard) which has a bearing upon the initial sources of finance (Shane and Cable, 2002).

Finding the right financing that fits with a businesses' goals is a continuing challenge for almost every small business. For start-up businesses this can be one of the biggest hurdles in getting off the ground. Inadequate funding is one of the main reasons that start-up businesses do not succeed: raising proper and adequate start-up capital is a necessity to start-up any business. An entrepreneur's background and business ownership experience is a determining factor in the choice of an entrepreneur's start-up capital, the type and amount of finance used (Westhead et al., 2003b; Westhead et al., 2005b). The level of human and social capital acquired by habitual entrepreneurs in previous ventures can greatly influence their identification and exploitation of business opportunities and resources (Starr and Bygrave, 1991; Hellmann and Puri, 2002; Hsu, 2003). Habitual entrepreneurs rely on past business ownership experience, reputation, ability to identify appropriate networking, and the adoption of new techniques in running their new business (Wright et al. 1997a). This gives them an added advantage in terms of information and knowledge about the business world (Carter and Ram, 2003), social and economic network (Ehrenfeld, 1993; Witt, 2004) and enable them to identify diverse business opportunities (Shane, 2000; Ucbasaran et al., 2003).

The chapter aims at investigating entrepreneur's access to and utilisation of start-up capital at the start of their business and the influence of human capital (education, training and prior ownership experiences) possessed by the entrepreneur in accessing the start-up capital. To achieve this objective, the chapter used the human capital theory of the entrepreneur and a series of logit regression models. The

chapter is organized as follows. Section two presents the empirical findings and section three concludes the chapter.

## **6.2 Empirical findings**

### **6.2.1 Descriptive statistics results**

The results from Table 6.1 show that the most used source of start-up finance was own savings and this was mentioned by 62.0% of the entrepreneurs. Table 6.1 also shows which was the most important source of finance at start-up was. 51.4% of entrepreneurs indicated that their own savings were the main source of finance at start-up, and this was by far the most mentioned source in Table 6.1. This finding is consistent with previous research on African business, although the magnitude of the importance of own savings is less than that found in previous research. The main reason for the difference is that in this study, a distinction was made between a single entrepreneur (own savings – 51%) and two or more entrepreneurs (co-investors – 32%). In a survey of 133 enterprises Findings Africa Region (1994) found that own savings formed over 80% of the initial start-up capital for the SME's surveyed.

Whilst Aryeetey et al. (1994) showed that 67% of small businesses in Ghana mentioned own savings as the main source of start-up capital. In other African countries there is a greater dependence upon own saving, compared to Ghana. For example, Nissanke (2001) found that 71% of small businesses in Zimbabwe used owners' savings as the main source of capital. The dependence upon owners'

savings is even more acute in Kenya, with Gray et al. (1997) noting that most small firms cited own savings as the main source of start-up capital, and stressed that no business had gained their start-up capital from a formal source.

Table 6.1: Sources of Finance and the Most Important Source of Finance at Start-Up Stage.

	Use of Source	Most Important Source
Own saving	62.0	51.4
Pension	4.6	3.8
Gift from relations	12.8	3.8
Loan from relations	13.4	3.0
Bank loan	11.8	2.2
Bank overdraft	12.6	0.6
Suppliers credit	31.6	2.0
Co-investor	36.4	32.0
Customer advance	3.0	1.0
Others	0.4	0.2
N	496	496

(Percentage of entrepreneurs reporting the use of each source of finance, and the most important source of finance at start-up).

Hamilton and Fox (1998) found that there was a trend of a reduction on the reliance on owners' savings. More specifically, they found that in New Zealand before the 1980s 76% of start-up capital was from owners' savings. The figure declined to 73% between 1980 and 1989, and further declined to 60% between 1992 and 1994. Thus, the lower incidence of own savings being used as a source of finance, and the main source of finance could be explained by a readiness of start-up

firms to offer collateral in recent times to their external lenders in order to secure start-up capital (Cowling and Westhead 1996).

Interestingly, the findings in Ghana on owners' savings are consistent with the findings in developed nations. In the US, 47% of small businesses relied upon savings as the principal source of start-up capital, and the corresponding figure in the UK was found to be 43% (Dunkelberry and Cooper, 1983). Whilst Ellett et al.'s (2004) survey of 147 new small businesses in South East England found that over 50% of the respondents relied upon the owners' personal savings. Other studies have also shown that own savings are the principal source of start-up capital and include: from the U.S. Acs (1985) (35%); Mexico, Hernandez-Trillo et al., (2005) (61%); Japan, Kutsuna and Honjo (2006) (80%); Ireland, Bhaird and Lucey (2006) (51%).

Pensions were mentioned by only 4.6% of entrepreneurs as a source of finance but were viewed by 3.8% of owners as the main source of finance. Thus, pensions represent an important source to a small niche of small business in Ghana. Aryeetey et al. (1994) reported that 9.4% and 6.5% of sampled businesses mentioned a pension as a source and the main source of start-up capital, respectively. Most of the entrepreneurs who indicated pension as source of capital were formal public sector workers, who took advantage of a lump sum of money given to them on their retirement or retrenchment.

Gifts from relations and loans from relations were used by 12.8% and 13.4%, respectively, of entrepreneurs at start-up, and these were the fourth and fifth most used sources. In other words, approximately one in eight entrepreneurs used loans, and a similar number used gifts from relations. However, gifts and loans from

relations were mentioned by 3.8% and 3.0%, respectively, of entrepreneurs as the main source of finance. These two sources were the joint third, and then the fifth most important sources. Loans and gifts from friends and relations have been described as aid to entry into entrepreneurship in Britain (Basu 1998). Among ethnic-owned businesses in the UK, family loans formed about 15% of the start-up capital (Curran and Blackburn 1993). In the US Bates (1977) also reported that entrepreneurs of an Asian immigrant origin had more family support in terms of loans for start-up capital than bank loans. Acs (1985) noted that in the United States, 28% of respondents sourced their start-up capital from family, friends and associates (co-investors).

Basu and Parker (2001) have pointed out that besides bank loans as a source of start-up capital, borrowings from friends and relations is the principal source of start-up capital. Aryeetey et al. (1994) reported that 11% and 5% of sampled businesses reported that their main source of start-up capital was gifts and loans from friends and relations, respectively. Adams (1992) argued that gifts and loans from friends and relations have been used to solve the weak institutional and enforcement problems and are therefore increased as a result of social pressure and reciprocity. Others have argued that these loans and gifts are part of a 'moral economy' in most developing countries where individuals depend on each other and will be willing to offer help (Morduch 1999; Hernandez-Trillo et al., 2005).

Co-investors were the second most used source of finance at start-up and recorded by 36.4% of entrepreneurs in the survey. Co-investors were the main source of finance for 32.0% of businesses, slightly less than one in three



entrepreneurs, and this again places co-investors as the second in rank order of importance. In this study, co-investors are two or more entrepreneurs putting their resources together to establish a business. Co-investors are shareholders of the business who may or may not be part of the day to day management of the business. The advantages of co-investors are that their contributions to the financing of the business are similar to those of a single entrepreneur, interest free and long term financing, and offer free expertise in the initial stages of business. Like the single entrepreneur, they may go without remuneration as long as the business is unable to afford that. Studies by Aryeetey et al. (1994) found that in Ghana, 7.8% of sampled businesses used co-investor financing as the initial source of finance. Kutsuna and Honjo (2006) show that 37% of sampled start-up businesses in Japan used financing from founding members (co-investors).

31.6%, slightly less than one in three entrepreneurs used supplier's credit as a source of finance at start-up, whilst customer advances were used by only 3.0% of owner managers, which represents less than one tenth of the incidence of supplier's credit. Suppliers credit and customer advances are both mentioned by comparatively few owner managers as the main source of start-up finance – 2.0% and 1.0%, respectively. This result is expected given that supplier's credit and customer advances are hardly used as a primary source of start-up capital but rather as a supplementary source of finance for existing firms (Aryeetey et al., 1994) to support working capital requirements (Findings Africa Region, 1994; Nissanke, 2001; Hernandez-Trillo et al., 2005; Heino, 2006). Customer advance is used mostly by microenterprises in the manufacturing and services sectors to purchase goods for

products or services they would render to their clients. Supplier's credit is mostly used by medium and large businesses in the manufacturing sector as a form of supporting working capital to increase the business' liquidity especially in times of increased production (Aryeetey, 1998).

Bank overdrafts and bank loans were cited by 12.6% and 11.8%, respectively, of entrepreneurs as sources which were used when they started the business, and this places these sources in sixth and seventh place, narrowly behind loans and gifts from relations. However, only 0.6% and 2.2%, respectively, of entrepreneurs indicated that the aforementioned sources were their main source of finance. The rather low use of bank loans and overdrafts are the results of information asymmetry (adverse selection and moral hazard problems) which are higher with regards to start-up businesses (Huyghebaert, 2003; Huyghebaert and Van de Gucht, 2007), their inability to provide collateral to support credit application (Manigart and Struyf, 1997; Berger and Udell, 1998; Nisanke, 2001) and also the lack of a proven track record and business experience (Findings Africa Region, 1994). Studies by Nisanke (2001) showed that in Ghana only 3% and 25% of microenterprises and medium-size enterprises, respectively, use bank loans and overdraft. Other studies have also shown low use of bank loans and overdraft as sources of start-up capital (From the United States, Acs (1985) (28%); New Zealand, Hamilton and Fox (1998) (11%); Mexico, Hernandez-Trillo et al. (2005) (0.6%); Japan, Kutsuna and Honjo (2006) (12.5%); Mexico, Heino (2006) (5%).

## **6.2.2 Regression results**

Having discussed the relative use and importance of the sources of start-up finance the findings of the logistic regression models can now be reported on each type of the sources of start-up finance.

### **6.2.2.1 Habitual entrepreneurship**

An entrepreneur requires diverse skills in order to put together all the needed resources to start a venture or take advantage of an opportunity (Venkataraman, 1997). These skills may be natural gifts or acquired through formal education and informal training (Lazear, 2005; Zhang, 2007). Access to finance plays an important role in the growth and development of an entrepreneur's business (Black and Strahan, 2002 pp. 2810). The lack of access to finance is one of the major obstacles to an entrepreneur's effective operations, to the maintenance or replacement of machinery and equipment, and to the purchasing of raw materials for expansion, growth and development (UNIDO, 1999 pp. 1; Pissarides, 1999 pp.521; Holtz-Eakin and Rosen, 1999; Van Auken, 2001 pp. 243). These challenges may prohibit the growth potential and survival of start-up businesses (Cooper et al., 1994; Bechetti and Trovato, 2002; Davila et al., 2003) as it impacts negatively on their performance and impede their chances of raising external finance (Marlow and Patton, 2005).

The results presented in Table 6.2 below shows that the habitual entrepreneurship variable appeared with a negatively signed coefficient regarding loans from relations at the 5% level. The results indicate that habitual entrepreneurs are less likely to depend on loans from relations compared to novice entrepreneurs.

The results regarding external sources of start-up capital indicate a positively signed coefficient at the 1% level of significance. Habitual entrepreneurs are therefore more likely to depend on external sources of start-up capital such as bank loans compared with novice entrepreneurs. The results therefore imply that habitual entrepreneurs do not only utilise internal sources of capital at the start of a new venture, but also utilise external sources of capital compared to novice entrepreneurs who on the other hand rely heavily on their own savings and those of relations at the start of a new venture (Kutsuna and Honjo, 2006; Heino, 2006; Bhaird and Lucey, 2006). These results are therefore consistent with hypothesis H<sub>1</sub>. A number of reasons can be assigned for these results.

Firstly, the habitual entrepreneurs by virtue of their prior business experience adopt a gradual process in establishing and implementing a new business. Their initial business start-up capital is mostly from internal sources such as personal savings and previous business savings (Aryeetey et al., 1994; Nissanke, 2001; Westhead et al., 2003a). The habitual entrepreneur will then supplement this internal source of start-up capital with supplier's credit, customer advances received from previous businesses (Hernandez-Trillo et al., 2005; Heino, 2006) and the sale of previous business in the case of serial entrepreneur (Westhead et al., 2003a). In later stages when further funding is required, the habitual entrepreneur will then approach the banks (Alsos and Kolvereid, 1998; Wright and Westhead, 1999).

Secondly, in financing the entrepreneur, external investors as a result of the conditions of market imperfection, encounter the problem of information asymmetry (Stiglitz and Weiss, 1981; Denis, 2004) and higher transaction costs (Watson and

Wilson, 2002; Cassar, 2004; Ebben and Johnson, 2006). This problem raises the issues of adverse selection and moral hazard thus creating the potential for rationing credit (Binks and Ennew, 1996). External investors therefore resolve this situation by building a good working relationship with the entrepreneur (Shane and Cable, 2002) and also through the pledging of collateral by the entrepreneur to secure the credit facility (Cowling and Westhead, 1996; Hart, 2001).

Unfortunately, the inexperienced novice entrepreneurs are unable to meet these credit requirements as they lack the requisite track record, lack reliable financial data, lack physical collateral or have insufficient assets to pledge as collateral compared to habitual entrepreneurs who are more likely to meet these requirements. They are therefore likely to encounter difficulties in accessing external credit (Steel and Webster, 1992 pp. 434; Levy, 1993 pp. 70; Aryeetey et al., 1994 pp. 11; Santos, 2003 pp.11). In view of the above challenges, the novice entrepreneurs are forced to source their start-up capital from internal source as they fail to meet the requirements of the external investor (Carpenter and Petersen, 2002). The novice entrepreneurs tend to depend on their own savings, gifts and loans from relations (Hernandez-Trillo et al., 2005; Kutsuna and Honjo, 2006; Heino, 2006; Bhaird and Lucey, 2006) at the start of their businesses and for business growth and survival.

Thirdly, at start-up novice entrepreneurs are perceived as high risk borrowers in view of their lack of experience, a poor lender-borrower relationship, and a lack of collateral to resolve the problems of information asymmetry and their inability to meet transaction and monitoring costs (Berger and Udell, 1998; Shane and Cable,

2002; Huyghebaert, 2003). These challenges therefore affect the cost and availability of external credit to the novice entrepreneur at start-up (Kutsuna and Honjo, 2006; Huyghebaert and Van de Gucht, 2007). Hence, their dependence on internal sources of start-up capital compared to the habitual entrepreneur (Winborg and Lanstorn, 2001; Carter and Van Auken, 2005).

Additionally, the habitual entrepreneurship variable in Table 6.2 shows a positively signed coefficient for the use of co-investors which was statistically significant at the 1% level. Habitual entrepreneurs by virtue of their prior business ownership experience have accumulated a vast amount of both human and social capital (Zhang, 2007). Through social networks, the habitual entrepreneurs can expand their knowledge base, positioning and relationship (Greve and Salaff, 2003). Unlike the novice entrepreneurs, the acquired networking skills of the habitual entrepreneurs offer them a large database of information about opportunities, access to vital resources including capital and ability to manage challenges (Burt, 1992; Sapienza et al., 1996; Hills et al., 1997; Floyd and Wooldridge, 1999; Hansen, 2001). Thus by their business ownership experience, habitual entrepreneurs can use their networking skills to source for funding from their colleague entrepreneurs or other worthy friends and individuals or other members of their social group within their community to start a new business (Cressy 1995; Westhead et al., 2004). They are therefore able to utilise external sources of credit from co-investors, supplier's credit and customer advance. This result is consistent with hypothesis H<sub>2</sub>.

### 6.2.2.2 Degree

The human capital theory asserts that entrepreneurs through the knowledge they possess are able to increase their cognitive abilities which allows them to be more effective and efficient in their productive activities and contribute to the growth of their business (Story, 1994; Basu, 1998; Smallbone and Wyer, 2000). This assertion presupposes that those individuals with higher education, more work experience and skills are likely to have superior abilities, achieve higher performance and become more successful in their economic ventures than those with a lower or less human capital (Davidsson and Honig, 2003; Dimov and Shepherd, 2005).

The choice of an individual becoming an entrepreneur is insignificantly related to the educational level of that individual (Van Der Sluis et al., 2003). However, the performance of the entrepreneur's venture is directly affected by the entrepreneur's level of education (Van Der Sluis et al., 2003). Thus entrepreneurs with higher education are more likely to be successful in their venture impacting positively on their performance with higher growth, profit and income (Metcalf et al., 1996; Basu and Goswami, 1999).

Table 6. 2: Estimates of a logit model of the probability of using sources of finance at start-up, by source.

	Own Savings	Pensions	Gifts from relations	Loans from relations	Co-investor	Suppliers Credit
Manufacturing	-0.071 (0.382)	-0.429 (0.700)	-0.335 (0.436)	0.097 (0.426)	0.117 (0.413)	<b>0.984 (0.403)<sup>b</sup></b>
Services	-0.112 (0.434)	-0.800 (0.886)	-0.433 (0.545)	-0.433 (0.508)	0.235 (0.463)	<b>1.135 (0.441)<sup>b</sup></b>
Size	<b>-0.038 (0.011)<sup>a</sup></b>	0.004 (0.028)	<b>-0.088 (0.024)<sup>a</sup></b>	0.006 (0.016)	<b>0.048 (0.011)<sup>a</sup></b>	0.002 (0.010)
Age of Business	0.017 (0.015)	<b>-0.100 (0.044)<sup>b</sup></b>	<b>0.053 (0.023)<sup>b</sup></b>	-0.021 (0.023)	0.012 (0.016)	-0.018 (0.016)
Employment Growth	0.005 (0.004)	0.003 (0.009)	<b>-0.012 (0.004)<sup>a</sup></b>	-0.006 (0.009)	-0.004 (0.003)	0.005 (0.004)
Conurbations	0.082 (0.307)	-0.868 (0.750)	0.230 (0.425)	<b>-0.839 (0.379)<sup>b</sup></b>	<b>0.075 (0.316)<sup>a</sup></b>	<b>0.474 (0.264)<sup>c</sup></b>
Small Towns	<b>0.753 (0.362)<sup>b</sup></b>	0.426 (0.694)	<b>0.128 (0.405)<sup>b</sup></b>	-0.587 (0.396)	0.270 (0.391)	<b>-0.564 (0.322)<sup>c</sup></b>
Gender	<b>-0.752 (0.319)<sup>b</sup></b>	-0.586 (0.647)	-0.468 (0.342)	-0.340 (0.342)	<b>0.889 (0.345)<sup>b</sup></b>	0.102 (0.263)
Age 18-30 years	0.895 (0.701)	-0.566 (1.281)	0.661 (0.657)	-0.552 (0.779)	<b>-0.554 (0.115)<sup>a</sup></b>	<b>1.046 (0.518)<sup>b</sup></b>
Age 31-45 years	<b>0.944 (0.255)<sup>a</sup></b>	-0.419 (0.688)	0.043 (0.371)	0.104 (0.347)	<b>-0.599 (0.264)<sup>b</sup></b>	0.086 (0.243)
Age 61 or more	<b>-0.891 (0.406)<sup>b</sup></b>	<b>3.207 (0.668)<sup>a</sup></b>	-0.111 (0.652)	0.637 (0.508)	-0.379 (0.430)	-0.431 (0.444)
Relative Role Model	0.323 (0.260)	0.593 (0.688)	0.388 (0.403)	<b>0.839 (0.388)<sup>b</sup></b>	-0.292 (0.276)	0.337 (0.247)
Degree	<b>-1.243 (0.260)<sup>a</sup></b>	0.052 (0.665)	<b>-1.753 (0.630)<sup>a</sup></b>	<b>-0.834 (0.396)<sup>b</sup></b>	<b>1.269 (0.263)<sup>a</sup></b>	-1.102 (0.243)
Exporter	-0.234 (0.289)	-0.228 (0.738)	0.468 (0.408)	<b>-1.429 (0.466)<sup>a</sup></b>	<b>0.300 (0.014)<sup>a</sup></b>	<b>0.320 (0.059)<sup>a</sup></b>
Product innovator	0.193 (0.318)	-0.112 (0.710)	-0.629 (0.529)	0.516 (0.465)	-0.228 (0.328)	-0.097 (0.307)
Process innovator	<b>-0.716 (0.306)<sup>b</sup></b>	0.391 (0.705)	0.549 (0.525)	-0.144 (0.450)	<b>0.884 (0.315)<sup>a</sup></b>	0.512 (0.300)
Habitual	0.083 (0.231)	-0.593 (0.577)	0.302 (0.343)	<b>-0.843 (0.339)<sup>b</sup></b>	<b>0.363 (0.102)<sup>a</sup></b>	0.060 (0.216)
Constant	<b>2.076 (0.625)<sup>a</sup></b>	<b>-1.755 (0.329)<sup>a</sup></b>	<b>-1.154 (0.332)<sup>a</sup></b>	<b>-1.077 (0.345)<sup>a</sup></b>	<b>-3.065 (0.677)<sup>a</sup></b>	<b>-1.793 (0.595)<sup>a</sup></b>
Log likelihood	-256.57	-68.95	-150.97	-173.38	-235.12	-287.60
% Correctly Classified	73.59	96.17	87.10	86.49	74.36	68.75
Pseudo R <sup>2</sup>	0.2793	0.3193	0.2685	0.2171	0.3094	0.2734
N	496	496	496	496	496	496

<sup>a</sup> Statistically significant at the 0.01 level; <sup>b</sup> Statistically significant at the 0.050; <sup>c</sup> Statistically significant at the 0.10 level.



Table 6.2: Estimates of a logit model of the probability of using sources of finance at start-up, by source.

	Customer Advance	Bank Overdraft	Bank Loans
Manufacturing	<b>0.153 (0.016)<sup>a</sup></b>	0.823 (0.620)	1.172 (0.838)
Services	0.322 (0.411)	0.702 (0.683)	<b>0.989 (0.203)<sup>a</sup></b>
Size	-0.017 (0.025)	<b>0.038 (0.013)<sup>a</sup></b>	<b>0.053 (0.014)<sup>a</sup></b>
Age of Business	0.002 (0.035)	<b>-0.076 (0.026)<sup>a</sup></b>	<b>-0.049 (0.023)<sup>b</sup></b>
Employment Growth	0.002 (0.008)	-0.005 (0.007)	-0.008 (0.007)
Conurbations	1.697 (1.100)	<b>0.284 (0.384)<sup>b</sup></b>	<b>0.931 (0.470)<sup>b</sup></b>
Small Towns	1.012 (1.262)	-0.040 (0.482)	0.773 (0.634)
Gender	0.734 (0.862)	0.308 (0.544)	<b>1.272 (0.575)<sup>b</sup></b>
Age 18-30 years	-0.017 (1.284)	0.344 (0.441)	0.160 (1.141)
Age 31-45 years	-0.688 (0.692)	-0.329 (0.338)	-0.294 (0.374)
Age 61 or more	-0.346 (1.116)	-0.757 (0.665)	0.379 (0.545)
Relative Role Model	0.607 (0.701)	0.314 (0.360)	0.370 (0.370)
Degree	0.028 (0.616)	0.036 (0.332)	0.109 (0.341)
Exporter	0.727 (0.643)	-0.272 (0.352)	-0.101 (0.375)
Product innovator	-0.025 (0.711)	0.002 (0.470)	-0.199 (0.474)
Process innovator	-1.134 (0.741)	<b>1.108 (0.443)<sup>b</sup></b>	<b>1.089 (0.445)<sup>b</sup></b>
Habitual	-0.007 (0.579)	0.232 (0.297)	<b>0.471 (0.120)<sup>a</sup></b>
Constant	<b>-2.674 (1.587)<sup>a</sup></b>	<b>-3.056 (0.895)<sup>a</sup></b>	<b>-6.308 (1.209)<sup>a</sup></b>
Log likelihood	-58.42	-163.24	-145.96
% Correctly Classified	96.98	86.86	88.91
Pseudo R <sup>2</sup>	0.2313	0.2199	0.2534
N	496	496	496

<sup>a</sup> Statistically significant at the 0.01 level; <sup>b</sup> Statistically significant at the 0.050; <sup>c</sup> Statistically significant at the 0.10 level.

One advantage habitual entrepreneurs with prior ownership experience have over novice entrepreneurs when starting a new venture is their ability to network. The habitual entrepreneur with a higher level of education is able to link up or have a better communication with varied financial providers such as (banks, non-banks, venture capitalists and public sector grants), consultants and other entrepreneurs or investors to identify an opportunity, pursue it and exploit it to their advantage (Basu and Goswami, 1999; Zhang, 2007). Networking skills gives the entrepreneur a large database of information about opportunities, access to vital resources including finance and human resources, and the ability to negotiate (Sapienza et al., 1996; Hills et al., 1997; Floyd and Wooldridge, 1999). The importance of investing in human capital is very apparent from Table 6.2 where the possession of a university degree was statistically significant for four sources of start up finance. Those entrepreneurs who had university degrees were more likely to use co-investors compared to those without university degrees. This result was consistent with the cross-tabulations where 61.1% of entrepreneurs with degrees used co-investors, compared to 23.1% of entrepreneurs without degrees.

Entrepreneurs with higher levels of education are more likely to show a higher performance in their venture and report lower capital constraints compared with entrepreneurs with a lower level of education (Parker and van Praag, 2006 pp.12). Hence, entrepreneurs with degrees were substantially less likely to use gifts and loans from relatives, as well as their own savings compared to those without degrees. Again the regression results were consistent with the cross-tabulations which found: Gifts from relations (2.3%, 18.5%), loans from relations (6.3%,

17.2%) and own savings (40.6%, 73.5%), where the first percentage in parentheses refers to those with degrees, and the second value refers to those without degrees. This result is consistent with hypothesis H<sub>3</sub>. Entrepreneurs with degrees relied the most upon co-investors, and to a lesser extent on own savings, whilst nearly three quarters of those without degrees used own savings. The use of co-investors by entrepreneurs with university degrees can also be explained by the fact that higher education inspires greater confidence in entrepreneurs and grants them the opportunity of networking both within and also outside their business environment (Buatsi, 2002).

In Ghana, most of the businesses in the service sector such as law, accounting and auditing, marketing, surveying and architectural, engineering, communication and other general services are jointly resourced and owned. Entrepreneurs and associates who work in those areas are mostly degree holders; thus, the use of co-investor's resources and skills are common. Regarding non-degree holders most are to be found in the micro-businesses and depend mostly on their own resources or those of close relations and friends to minimize risk and maintain control (Romano et al., 2000). Heino (2006) pointed out that the more educated entrepreneurs are the more likely they will report a higher use of external source of start-up capital.

### **6.2.2.3 Innovation**

Product or service innovation was found not to be statistically significantly related to any of the models of the use of start-up finance. Thus, product or service innovation is not consistent with the third hypothesis.

A number of reasons account for this. Firstly, inadequate information on the innovation makes it impossible for the bank to determine the uncertainty associated with the technology, production, marketing and the return of the project (Binks and Ennew, 1996). This problem is compounded by the institutional weaknesses within the banking sector arising from the lack of skills in credit appraisal, risk management and monitoring difficulties. Secondly, the situation is further compounded by the inefficiencies in the legal system making loan recovery, bankruptcy and contract enforcement a major challenge for banks in the case of a bad investment. Another related problem is the absence or ineffectiveness of the property right for new ideas and discovery. Banks are therefore uncertain about the positive return from their investment as spillovers are likely to erode the innovators benefits.

Thirdly, small innovation businesses are considered to have a high risk of default. Most small businesses especially for start-ups, access to finance is a major challenge, thus they tend to finance any innovative idea through own savings and retain earnings from the business' operations. Bank financing are therefore likely to be indirectly channelled to the innovative project. Fourthly, most small businesses have a single or small management team and almost all the innovative ideas are embedded with the entrepreneur. This makes the small business very sensitive to

management change, hence the loss of the innovative ideas or products. These problems are more pronounced where the small businesses are located in small towns and further away from the banks (Sunley et al., 2005).

In contrast process innovation was statistically significant for five sources of start-up capital: own savings and customer advances, which appeared with negatively signed coefficients, and bank loan, bank overdrafts and co-investors which all appeared with positive coefficients. Process innovation involves the use of new technology, new equipment, plants and machinery and improved raw materials. These are very expensive ventures which owner's savings and customer advances are unable to meet. Overall, the process innovation results are consistent with hypothesis H<sub>4</sub>.

The process innovation results confirm the pecking order theory of small business finance regarding their lifecycle. Entrepreneurs will prefer self-financing from own saving and retained earning from business operation over debt, and debt financing over external equity financing (Giudici and Paleari, 2000 pp. 50). Self financing is preferred because it is less expensive and the entrepreneur has insider information on the innovation process. On the other hand, debt even though expensive is preferred to external equity financing because, the entrepreneur will prefer to maintain his ownership and control of the business, debt financing is much easier to access compared to external equity, public offerings are prohibitive to small businesses in view of its costs and complexity, hence the choice of debt over external equity. Besides these, the entrepreneur will also consider accepting external financing from individual investors as partners compared to institutions as these

individuals are expected to bring along some competencies and expertise into the business.

Again the results of the survey points out that most of the process innovation has been carried out by medium-size businesses located in conurbation and large towns with the entrepreneur(s) having high level of education and experience. Thus habitual entrepreneurs with these competencies are more likely to network and use co-investors to finance process innovation at start-up compared with novice entrepreneurs. This result is consistent with hypothesis H<sub>4</sub>.

#### **6.2.2.4 Exporting**

Most entrepreneurs are unable to meet their export financing requirement because buyers in developed nations delay payments upon receipt of export documents for the reasons of confirming the quality of the goods and thus demand 30 to 90 days to confirm this (Buatsi, 2002). Hence the dependance on bank credit as their main source of export finances (Alando, 1991; Baah-Nuakoh et al., 1996). However, bank credits are not only difficult to access, but also the application procedures are cumbersome, interest rates are high, increasing collateral requirement and most credits are short-term (Baah-Nuakoh et al., 1996; Buatsi, 2002).

Additionally, on the delayed payment, most buyers base their arguments on the inefficiency of the legal systems in developing countries and the challenges of receiving a refund. This obviously will affect the cash flows of exporters as their production cycle is disrupted and this will deteriorate their balance sheet position, which negatively affects their access to external finance. The inability of exporters

to access export finance will very much affect their products and delivery (Morna et al., 1990). Another challenge exporting entrepreneurs face in accessing external credit is the asymmetric information problem. Most exporters have a better knowledge of their exports and the export market than do banks and other financiers. The differences in information restrict the entrepreneur's access to credit (Binks et al., 1992; Tannous, 1997).

The regression results in Table 6.2 indicate that exporting entrepreneurs were related to three sources of start-up finance: loans from relations, supplier's credit, and co-investors. Exporting entrepreneurs were less likely to have used loans from relations compared to exporting novice entrepreneurs because of the financial requirements involved in exporting. Secondly, exporting entrepreneurs tend to collaborate and network with other exporters and institutions to secure co-investors to meet export requirements (Buasti, 2002). They also depend heavily on supplier's credit as a form of working capital to meet export orders (Findings African Region, 1994; Nissanke, 2001). This result is consistent with hypothesis H<sub>5</sub>.

The section now makes brief comments on the other explanatory variables which were included in the regression models.

#### **6.2.2.5 Sector**

Firstly, the regression models shown in Table 6.2 excluded the sector comparison group of agricultural businesses. Looking at the regression results it was found that manufacturing businesses and also service sector businesses were more likely than agricultural businesses to have used supplier's credit. In addition service

sector businesses were more likely than agricultural businesses to have used bank loans; and manufacturing businesses were more likely than agricultural businesses to have used customer advances. Entrepreneurs in both manufacturing and services sectors reported a higher level of human capital compared to entrepreneurs engaged in agriculture. This higher level of human capital gives these entrepreneurs an opportunity to identify, pursue, network and negotiate for external credit (Shane, 2000; Carter and Ram, 2003; Witt, 2004).

Start-up businesses facing access to formal credit difficulties often finance their growth or working capital needs through either retained earnings or other financing options including supplier's credit and customer advances (Aryeetey et al., 1994; Findings Africa Region, 1994; Nissanke, 2001). Entrepreneurs in both small and medium-size enterprises finance their growth and working capital needs through suppliers credit (Aryeetey et al., 1994), whilst entrepreneurs in micro enterprise rely on customer advances to finance their working capital needs at start-up (Findings Africa Region, 1994). The results indicate that entrepreneurs engaged in both the manufacturing and service sectors are more likely to report a higher use of external sources of start-up capital compared to entrepreneurs engaged in the agricultural sector.

#### **6.2.2.6 Size**

One of the binding constraints to small business' establishment and expansion is the lack of access and the cost of finance (Steel and Webster, 1991; Levy, 1993; Aryeetey et al., 1994; Blanc, 1997). This binding constraint is severest



according to the size of the business. Aryeetey et al. (1994) showed that only a third of micro business' loan applications are successful, and only one in two for small and medium-sized enterprises in Ghana. Whilst in Tanzania, Blanc (1997) has shown that 84% of micro businesses compared to 58% and 54% of small-lower and small-upper businesses, respectively, had never applied for a bank loan. In Ghana, the use of bank credit to start-up a business is very uncommon as banks and other formal financial institutions have difficulties determining the quality of these borrowers.

In Table 6.2 above, the size of the business was found to be statistically significantly related to five sources of start-up capital: own savings, gifts from relations, bank overdrafts bank loans, and co-investors. The results indicated that the larger size businesses were less likely to depend on internal sources of start-up capital such as own savings and gifts from relations. On the other hand, the results also indicated that larger size businesses reported higher usage of external sources of start-up capital such as bank overdrafts, bank loans and co-investors.

Previous research in Ghana had shown that only 10% of small businesses and 1% of micro-businesses have access to bank loans at start-up (Aryeetey et al., 1994; Nissanke, 2001). Small businesses, therefore, depend on their own savings and gifts from relations for start-up capital (Acs, 1985; Hernandez-Trillo et al., 2005; Kutsuna and Honjo 2006; Bhaird and Lucey, 2006). The results implies that entrepreneurs operating in larger businesses are more likely to report a higher level of use of external sources of capital compared to entrepreneurs in much smaller businesses.

### **6.2.2.7 Location**

In this section, the excluded comparison dummy variable in the regression models was those businesses located in large towns. The conurbation dummy variable was statistically significant in five models: loans from relations, co-investors, supplier's credit, bank overdrafts and bank loans, where the loan from relations appeared with negatively signed coefficient and the coefficients for co-investors, supplier's credit, bank overdraft and bank loans all appeared with a positive sign.

The results in Table 6.2 also suggest that entrepreneurs located in conurbations were more likely to report a higher use of external sources of start-up capital compared to entrepreneurs located in large towns. Most of these entrepreneurs are in the small and medium-size businesses engaged in the manufacturing and services sectors. Most of these entrepreneurs are well established and experienced with proven track records, credit history, financial statements and collateral to secure bank credit or to attract potential investors. These entrepreneurs are more likely to have reported a higher usage of external sources of start-up capital such as co-investors, supplier's credit, bank overdrafts and bank loans compared with entrepreneurs located in large and small towns. They are also less likely to use loans from relations and suppliers credit since their finances are either too small or irrelevant in meeting their financing requirements. Both Aryeetey et al., (1994) and Nisanke, (2001) found that 21% and 25%, respectively, of entrepreneurs within medium-sized businesses used bank loans as their primary source of start-up capital.

The small towns dummy was statistically significant in three models: own savings, gifts from relations and suppliers credit. Entrepreneurs located in small towns were less likely to have reported a higher use of external sources of start-up capital compared with entrepreneurs located in large towns. On the other hand, entrepreneurs located in small towns were more likely to have reported a higher dependence on internal sources of start-up capital. By virtue of their occupational engagements such as farming, poultry, animal rearing, fishing, artisan works, handicrafts and commerce, entrepreneurs located in small towns are more likely to have used personal savings and gifts from relations at the start of their ventures.

Most of the entrepreneurs in this category are less educated, have low levels of income, lack collateral and possess unreliable business information to secure formal credit compared to their counterparts in conurbations and large towns. Hence access to formal credit is not only difficult, but with higher interest rates. They therefore rely on informal sources including local bank agents (*susu agent*) as sources of start-up capital (Aryeetey et al., 1994). The use of supplier's credit thrives on trust and ability to repay the suppliers.

#### **6.2.2.8 Employment growth**

Employment growth was only statistically significantly related to one source of finance: Gifts from relatives, and that appeared with a negatively signed coefficient. Access to finance is a major constraint to the growth of small businesses. This situation arises basically because of the problem of asymmetric information and the lack of collateral to overcome the moral hazard problems (Binks

and Ennew, 1996). Most entrepreneurs often finance their growth through retained earnings. The unavailability of internal finance constraints the growth of most small businesses.

For businesses that make little or no use of external finance the relationship between growth and internal finance is expected to be weak (Demirguc-Kunt and Maksimovic, 1998; Carpenter and Petersen, 2002). Entrepreneurs experiencing employment growth are less likely to depend on loans from relations because employment growth in businesses tends to increase the demand for additional finance which both the retained earnings, owners savings and loans from relations are unable to meet (Hall et al., 2004). Entrepreneurs with higher levels of human capital are more likely to report an increase in employment growth, hence a higher use of external sources of start-up capital.

#### **6.2.2.9 Gender**

Table 6.2 shows that the gender of the entrepreneur was statistically significantly related to three of the sources of capital: own savings, bank loans, and co-investors. Men were less likely than women to use their own savings as a source of start-up finance. This confirms earlier analysis using cross-tabulations where 83.0% of women compared to 55.9% of men used own savings as a source of finance. Men were also more likely than women to use bank loans and co-investors. The adverse situation of women, relative to men in Ghana, also manifested itself in only 3.6% of women having used bank loans, compared to 14.2% of men; and, also

with only 13.4% of women using co-investors as a source of start-up finance which is less than one third of the 43.0% of the corresponding value of men.

The difference in the financing of business by male and female entrepreneurs usually occurs due to the difference in their type of business, management style and the level of education and experience. Female entrepreneurs encounter some difficulties in accessing start-up capital (Verheul and Thurik, 2001). The results indicated that male entrepreneurs are more likely to report a higher level of human capital compared to female entrepreneurs, hence a higher usage of external sources of start-up capital than women entrepreneurs.

#### **6.2.2.10 Age of the entrepreneur**

In the models those entrepreneurs aged 18-30 years old were less likely than those aged 46-60 years old to have used suppliers' credit. Entrepreneurs aged 31-45 years old were more likely to have reported a higher usage of own savings, and lesser usage of co-investors than those aged 46-60 years old. Younger entrepreneurs very often lack the proven track record, business experience and collateral to access bank credit, and are therefore screened out for their inability to prove their quality. Thus, they tend to rely heavily on their own savings as source of start-up capital, rather than to apply for bank credit (Timmons, 1994; Robb and Wolken, 2002).

A variety of reasons can be offered to explain the greater probability of the use of co-investors by those entrepreneurs aged 31-45 years old compared to those aged 46-60 years old. First, the older categories of entrepreneurs are more likely to have gained a considerable amount of experience and reputation from previous

employment to be able to network with other associates to enable them to put financial resources together to start a business. Second, the older category of entrepreneurs over the years may have acquired proven track records, and internally generated profit (Hall et al., 2004; Abor and Biepke, 2006b), and may have secured some physical assets to be used as collateral to access bank credit, thus they have a much easier access to bank credit than younger entrepreneurs.

The oldest categories of entrepreneurs who were 61 or more years old were less likely to use their own savings, and more likely to use pensions compared to those aged 46-60 years of age. Own savings to start up a business is mostly accumulated from formal employment, other businesses, pension and gifts and loans from relations. The use of pensions by entrepreneurs aged 61 or more results from the fact that these entrepreneurs may have been in formal employment within the civil or public services and on their retirement at age 60 they would want to start their own business. Most of these entrepreneurs would naturally have some difficulty accessing formal credit for lack of collateral and proven track record. Thus when they have access to their pension fund, their main desire is to set up a venture with this lump sum to ensure adequate and regular income during their retirement. During the survey one such entrepreneur asserted *“I served in the Ghana Army for 25 years and on retirement, I decided to start a poultry farm which I enjoy doing. Getting loan from the banks was difficult, because I refuse to use my house as collateral. When my pension was finally paid, I invested all into the poultry business.”*

### **6.2.2.11 Relative role model**

Having a member of the family previously being in business was only statistically significant in one of the models. More specifically, those entrepreneurs who had a member of their family who had previously been in business were more likely than those without to use loans from relatives. Basu and Parker (2001) asserted that borrowing from family and friends is a principal source of start-up capital in many countries including the UK. Curran and Blackburn (1993) and Bates (1997) observed that family borrowing at start-up was common among ethnic-owned businesses in the UK and Asian immigrant entrepreneurs in the USA respectively. Entrepreneurs running family businesses will prefer internally generated finance to debt because of their fear of losing control of the business (Sonnenfeld and Spence 1989; Storey, 1994). Additionally, the entrepreneur's desire to minimize risk and to maintain business ownership, independence and control and family reputation makes them avoid external finance (Neubauer and Lank, 1998; Romano et al., 2000). The results imply that entrepreneurs with relative role model are more likely to report a higher use of internal sources of capital.

### **6.3 Conclusion**

This chapter has examined the sources of start-up capital of small business entrepreneurs in Ghana using a new data set. The findings suggest that entrepreneurs with business ownership experience and proven track records do not only utilise internal sources of capital at the start of a new venture, but also utilise external sources of capital compared to novice entrepreneurs who rely heavily on their own

savings and those of relations at the start of a new venture. Studies have shown that the entrepreneur's business background and prior ownership experience plays a significant role in the entrepreneur's choice of the type and amount of start-up capital (Westhead et al., 2003b; Westhead et al., 2005b).

Besides own savings, the study results also show that more than a third of entrepreneurs mentioned co-investment as a source of start-up capital with 32% indicating co-investors as their main source of start-up capital (Aryeetey et al. 1994). Besides these two main sources gifts from relations and loans from relations were used by 12.8% and 13.4%, respectively, of entrepreneurs at start-up. The results further show that 31.6% and 3% of entrepreneurs mentioned supplier's credit and customer advances, respectively, as a source of start-up capital. Bank overdrafts and bank loans were cited by 12.6% and 11.8%, respectively, as sources of start-up capital. This result confirms earlier findings (Aryeetey et al., 1994; Findings Africa Region, 1994; Nissanke, 2001; Hernandez-Trillo et al., 2005; Heino, 2006).

The findings of this chapter were consistent with hypotheses H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub>, H<sub>4</sub> and H<sub>5</sub> set-up in chapter three. The results confirmed hypothesis H<sub>1</sub>, showing that experienced entrepreneurs were more likely to report a lower use of internal sources of start-up capital compared to novice entrepreneurs who are more likely to depend on internal sources of capital. Similarly, the results also confirmed hypothesis H<sub>2</sub> in that experienced entrepreneurs were more likely to report a higher usage of external sources of start-up capital compared with novice entrepreneurs. The results also confirmed the third hypothesis H<sub>3</sub> that entrepreneurs with higher levels of education were more likely to report a lower usage of internal sources of capital compared with



novice entrepreneurs. Additionally, entrepreneurs engaged in innovation and exports, were more likely to report higher usage of external finance compared with entrepreneurs not engaged in innovation and exporting. These results confirm hypotheses H<sub>4</sub> and H<sub>5</sub> respectively.

Entrepreneurs in the manufacturing and service sectors were more likely to report a higher use of external sources of start-up capital compared to entrepreneurs engaged in the agricultural sector. Entrepreneurs operating in larger businesses were more likely to report a higher level use of external sources of capital compared to entrepreneurs in much smaller businesses. The findings also suggest that entrepreneurs located in conurbations were more likely to report a higher usage of external sources of start-up capital compared to entrepreneurs located in small towns. Similarly, male entrepreneurs are more likely to report a higher level of human capital compared to female entrepreneurs, hence a higher usage of external sources of start-up capital than women entrepreneurs. Entrepreneurs experiencing employment growth in their business were less likely to report a lower use of internal sources of start-up capital. Entrepreneurs with relative role model are more likely to report a higher use of internal sources of capital.

Policy makers and practitioners can support the growth of start-up businesses through technical and financial support. Secondly, the findings on innovation, degree and exporting are particularly significant. Policies must be made to assist small business entrepreneurs at the early stages of their venture in the form of incentives such as tax holidays. Also, policy makers must support small business start-ups with grants, subsidies and credit guarantee schemes.

Besides these challenges facing small business entrepreneurs in raising start-up capital, entrepreneurs also encounter other challenges in accessing external credit for working capital and capital investment. The next chapter therefore examines the credit rationing of the types of entrepreneurs.

## Chapter 7

### **The Credit Rationing of Novice, Serial and Portfolio Entrepreneurs in Ghana**

#### **7.1 Introduction**

The previous chapter has explored the sources of start-up capital for small business entrepreneurs in Ghana. Previous studies on entrepreneurial experience have not systematically considered the types of credit rationing, credit constraints and discouraged borrowers, as well as a broad category which includes all three of the aforementioned types of credit rationing and credit constraints. Despite recent research progress (Biggs et al., 2002; Storey, 2004), there are gaps in the knowledge base relating to the profiles of entrepreneurs who are or are not credit rationed. This chapter explores whether an entrepreneur's possession of human capital may result in a decreased propensity of the entrepreneur being credit rationed or constrained.

Financial institutions and enterprise agencies use information pertaining to entrepreneurs' experience as a way to screen applications for assistance (MacMillan et al. 1985; Westhead and Wright, 1999). However, within the entrepreneurship literature there is an absence of research on emerging nations as to whether entrepreneurial experience has a bearing upon the likelihood of successfully accessing external finance. The evidence of previous literature reviews on the state of habitual entrepreneur (Ucbasaran et al., 2008) studies shows that the vast majority of attention has focused upon North America and Europe. Consequently there is a need to better understand entrepreneurship in emerging nations such as Ghana. The

chapter explores this emerging debate and seeks to make several conceptual and empirical contributions utilising human capital theory.

Consistently, studies have identified access to credit as one major constraint to small business expansion, growth and development in both developed and developing countries (Steel and Webster, 1992; Levy, 1993; Pissarides, 1999; Okoh and Ping, 2000; European Commission, 2002; van Eeden et al., 2003; European Commission, 2003; Beck and Demirguc-Kunt, 2006; Rand, 2007). Aryeetey and Fenny (2006) identified access to finance by small businesses as the dominant constraint to their business expansion, with businesses citing inadequacy of credit for working capital and for the purchase of raw material and equipment. Aryeetey et al. (1994) observed that 42% of micro-size businesses, 38% of small-size businesses and 25% of medium-size businesses listed among their major constraints access to credit for working capital.

Other studies have also revealed that whereas large businesses are able to obtain 48% of their financing needs from external sources, small businesses obtain only 30% of their financing from external sources (World Bank, 2004b). Generally, banks are reluctant in providing finance to small business entrepreneurs because they perceive them as having a high risk profile and are therefore unsuitable for investment (UNCTAD, 1999; Abereijo and Fayomi, 2005). These perceived high risks of small businesses arises from the fact that loans to small businesses are small in size, have high transaction costs associated with them, and have limited market power (Tagoe et al., 2005). Also, these perceived high risks are also seen in small businesses' lack of managerial skills, a high share of intangible assets, the absence

of adequate accounting track records, unreliable financial data and insufficient assets to pledge as collateral (Santos, 2003).

In considering small businesses as high risk ventures, banks tend to charge them higher interest rates compared to large businesses (Pissarides, 1999). These increased interest rate charges are due to the small businesses' inability to provide adequate collateral to support their loan applications, a poor credit history, together with uncertainty about an entrepreneur's ability and repayment capacity (Abereijo and Fayomi, 2005; Beck and Demirguc-Kunt, 2006). In addition, small businesses have a high rate of bankruptcy and depend solely on the entrepreneur for their survival. Consequently, the banks have been reluctant to lend to these businesses. In contrast, larger and well established businesses with adequate assets for collateral, an available market and demonstratable profitability and more reliable business information have easy access to bank credit at a relatively lower interest rate (Wagenvoort, 2003).

In the case of start-ups and innovative entrepreneurs the access to credit constraint situation is even worse as banks are uncertain about the future prospects of these businesses (OECD, 2004). About a decade ago in Ghana, nearly one half of all small and medium size enterprise loan applications are likely to have been rejected and about 60% of all micro-enterprise loan applications are likely to be rejected (Nissanke and Aryeetey, 1998). Bigsten et al. (2000) have argued that about 90% of small businesses' loan applications to formal financial institutions were rejected on the grounds of their inability to provide collateral security. As a result, most small businesses are reluctant to seek external finance from the formal

institutions, combined with a perception that their request might be turned down. They rather prefer sourcing external finance from informal sources such as the businesses' retained earnings, personal savings, friends and relations, suppliers' credit, customer advances, moneylenders, and 'susu' i.e. operators of local banks (Aryeetey et al., 1994; Okoh and Ping, 2000).

Although access to finance does not automatically solve all the problems confronting small businesses, it is an essential factor in ensuring their access to all other ingredients including raw materials, the latest technology, and potential markets. Levy (1993), Pissarides (1999) and Beck and Demirguc-Kunt (2006) have all argued that the limited access to small business finance is an important issue in their growth and development. The chapter is structured as follows. Section two presents the empirical findings and section three concludes the chapter.

## **7.2 Empirical findings**

### **7.2.1 Descriptive statistics results**

The focus of this chapter is upon the human resource capital and the entrepreneurs' experience using logit regression techniques. However, before the regression results are analysed it is beneficial to gain a clear understanding of the extent of credit rationing for all of the entrepreneurs and against the three types of entrepreneurial founders, and these results are presented in Table 7.1a. The extent of unconstrained entrepreneurs, credit rationed entrepreneurs, constrained

entrepreneurs and discouraged entrepreneurs are reported for three time periods: 2-3 years ago, 1-2 years ago, and then last year respectively.

#### **7.5.1.1 Unconstrained entrepreneurs**

In Table 7.1a the unconstrained entrepreneurs are those entrepreneurs who had no need to apply for credit and those who applied and received the full amount. In the three year period, 2-3 years ago, 1-2 years ago and last year, the results show all the entrepreneurs who had no need to apply for credit as: 22.4%, 21.8% and 26.0% respectively. Similarly, over the same three year period the percentage of entrepreneurs who received their full amount of requested credit has declined from 22.8% to 12.3% to 9.0%, where these refer to the three time periods from the oldest time period examined to the most recent.

In Table 7.1a the results show entrepreneurs with no need for bank credit, and hence no credit applications as: novice entrepreneurs 16.4%, 15.8% and 20.1%; serial entrepreneurs 44.3%, 42.6% and 47.5%; and portfolio entrepreneurs 25.6%, 25.6% and 29.2% for the three year period, 2-3 years ago, 1-2 years ago and last year respectively. Also, entrepreneurs who received the full amount for their credit request recorded novice entrepreneurs as 19.5%, 9.1% and 4.7%; serial entrepreneurs as 29.5%, 19.7% and 18.0% and for portfolio entrepreneurs as 27.0%, 16.1% and 14.6% for the three year period, 2-3 years ago, 1-2 years ago and last year, respectively.

Similarly in Table 7.1b, the unconstrained novice entrepreneurs who had no need to apply for credit recorded 16.4%, 15.8% and 20.1% for the three year period,

2-3 years ago, 1-2 years ago and last year, respectively. Also, those novice entrepreneurs who received full amount recorded 19.5%, 9.1% and 4.7% for the three year period, 2-3 years ago, 1-2 years ago and last year, respectively. On the other hand, habitual entrepreneurs who had no need to apply in the three year period recorded 31.3% for 2-3 years ago, 30.8% for 1-2 years ago and 34.9% for last year. Also, habitual entrepreneurs who had full amount of credit recorded 27.8%, 17.2% and 15.7% for the three year period, 2-3 years ago, 1-2 years ago and last year respectively.

#### **7.2.1.2 Credit rationed and constrained entrepreneurs**

In Table 7.1a, the percentage for all entrepreneurs who received a reduced amount of credit than they applied for (credit rationed) was 28.8% in the period 2-3 years ago, 35.5% in the period 1-2 years ago, and 20.0% in the last year. Whilst the percentage for all the entrepreneurs whose applications were rejected and no external credit was received (credit constrained) rose substantially from 4.8% in 2-3 years ago to 15.3% 1-2 years ago and again increased to 19.6% in the last year.

Similarly in Table 7.1a, entrepreneurs who experienced a reduced amount were credit rationed recorded for: novice entrepreneurs 30.5%, 38.3% and 18.8%; for serial entrepreneurs 16.4%, 19.7% and 13.1%; and for portfolio entrepreneurs 30.7%, 36.5% and 25.6% for the three year period, 2-3 years ago, 1-2 years ago and last year respectively.



Table 7.1a: Credit Rationing by Type of Key Founder: Novice, Serial and Portfolio Entrepreneurs

	Novice		Serial		Portfolio		All		Significance Tests	
	No.	%	No.	%	No.	%	No.	%	Chi-Sq	Significance Level
1. Credit Rationing in last year <sup>a, b, c</sup>									60.18	0.001
(i) No need to apply	60	20.1	29	47.5	40	29.2	129	26.0		
(ii) Successful – Full Amount	14	4.7	11	18.0	20	14.6	45	9.0		
(iii) Successful – Reduced Amount	56	18.8	8	13.1	35	25.6	99	20.0		
(iv) Rejected – No external finance	68	22.8	6	9.8	23	16.8	97	19.6		
(v) Discouraged – Did not apply	100	33.6	7	11.5	19	13.9	126	25.4		
Summary of Credit Rationing in last year <sup>a, b, c</sup>									34.21	0.001
Not Credit Rationed (i+ii)	74	24.8	40	65.5	60	43.8	174	35.0		
Credit Rationed (iii+iv+v)	224	75.2	21	34.4	77	56.2	322	65.0		
2. Credit Rationing in last 1-2 years <sup>a, b, c</sup>									42.29	0.001
(i) No need to apply	47	15.8	26	42.6	35	25.6	108	21.8		
(ii) Successful – Full Amount	27	9.1	12	19.7	22	16.1	61	12.3		
(iii) Successful – Reduced Amount	114	38.3	12	19.7	50	36.5	176	35.5		
(iv) Rejected – No external finance	52	17.5	5	8.2	19	13.9	76	15.3		
(v) Discouraged – Did not apply	58	19.5	6	9.8	11	8.0	75	15.1		
Summary of Credit Rationing in last 1-2 years <sup>a, b, c</sup>									28.209	0.001
Not Credit Rationed (i+ii)	74	24.8	38	62.3	57	41.6	169	34.1		
Credit Rationed (iii+iv+v)	224	75.2	23	37.7	80	58.4	327	65.9		
3. Credit Rationing in last 2-3 years									44.41	0.001
(i) No need to apply	49	16.4	27	44.3	35	25.6	111	22.4		
(ii) Successful – Full Amount	58	19.5	18	29.5	37	27.0	113	22.8		
(iii) Successful – Reduced Amount	91	30.5	10	16.4	42	30.7	143	28.8		
(iv) Rejected – No external finance	16	5.4	2	3.3	6	4.4	24	4.8		
(v) Discouraged – Did not apply	84	28.2	4	6.6	17	12.4	105	21.2		
Summary of Credit Rationing in last 2-3 years <sup>a, b, c</sup>									33.49	0.001
Not Credit Rationed (i+ii)	107	35.9	45	73.8	72	52.6	224	45.2		
Credit Rationed (iii+iv+v)	191	64.1	16	26.2	65	47.4	272	54.8		

<sup>a</sup> Statistically significant difference between novice and portfolio founders at least the 0.05 level; <sup>b</sup> Statistically significant difference between novice and serial founders at least the 0.05 level; <sup>c</sup> Statistically significant difference between portfolio and serial founders at least the 0.05 level

Table 7.1b: Credit Rationing by Type of Key Founder: Novice and Habitual Entrepreneurs

	Novice		Habitual		All		Significance Tests	
	No.	%	No.	%	No.	%	Chi-Sq	Significance Level
1. Credit Rationing in last year <sup>a, b, c</sup>							49.76	<b>0.001<sup>a</sup></b>
(i) No need to apply	60	20.1	69	34.9	129	26.0		
(ii) Successful – Full Amount	14	4.7	31	15.7	45	9.0		
(iii) Successful – Reduced Amount	56	18.8	43	21.7	99	20.0		
(iv) Rejected – No external finance	68	22.8	29	14.7	97	19.6		
(v) Discouraged – Did not apply	100	33.6	26	13.1	126	25.4		
Summary of Credit Rationing in last year <sup>a, b, c</sup>							34.43	<b>0.001<sup>a</sup></b>
Not Credit Rationed (i+ii)	74	24.8	100	50.5	174	35.0		
Credit Rationed (iii+iv+v)	224	75.2	98	49.5	322	65.0		
2. Credit Rationing in last 1-2 years <sup>a, b, c</sup>								<b>0.001<sup>a</sup></b>
(i) No need to apply	47	15.8	61	30.8	108	21.8		
(ii) Successful – Full Amount	27	9.1	34	17.2	61	12.3		
(iii) Successful – Reduced Amount	114	38.3	62	31.3	176	35.5		
(iv) Rejected – No external finance	52	17.5	24	12.1	76	15.3		
(v) Discouraged – Did not apply	58	19.5	17	8.6	75	15.1		
Summary of Credit Rationing in last 1-2 years <sup>a, b, c</sup>							28.40	<b>0.001<sup>a</sup></b>
Not Credit Rationed (i+ii)	74	24.8	95	48.0	169	34.1		
Credit Rationed (iii+iv+v)	224	75.2	103	52.0	327	65.9		
3. Credit Rationing in last 2-3 years							33.92	<b>0.001<sup>a</sup></b>
(i) No need to apply	49	16.4	62	31.3	111	22.4		
(ii) Successful – Full Amount	58	19.5	55	27.8	113	22.8		
(iii) Successful – Reduced Amount	91	30.5	52	26.3	143	28.8		
(iv) Rejected – No external finance	16	5.4	8	4.0	24	4.8		
(v) Discouraged – Did not apply	84	28.2	21	10.6	105	21.2		
Summary of Credit Rationing in last 2-3 years <sup>a, b, c</sup>							25.82	<b>0.001<sup>a</sup></b>
Not Credit Rationed (i+ii)	107	35.9	117	59.1	224	45.2		
Credit Rationed (iii+iv+v)	191	64.1	81	40.9	272	54.8		

<sup>a</sup> Statistically significant difference between novice and portfolio founders at least the 0.05 level; <sup>b</sup> Statistically significant difference between novice and serial founders at least the 0.05 level; <sup>c</sup> Statistically significant difference between portfolio and serial founders at least the 0.05 level

Also, entrepreneurs who had their application rejected recorded novice entrepreneurs as 5.4%, 17.5% and 22.8%; serial entrepreneurs as 3.3%, 8.2% and 9.8% and for portfolio entrepreneurs as 4.4%, 13.9% and 16.8% for the three year period, 2-3 years ago, 1-2 years ago and last year, respectively.

On the other hand, in Table 7.1b, the novice entrepreneur's results are same as in Table 7.1a. For habitual entrepreneurs who had received a reduced amount in the three year period recorded 26.3% for 2-3 years ago, 31.3% for 1-2 years ago and 21.7% for last year. Also, habitual entrepreneurs who were rejected credit recorded 4.0%, 12.1% and 14.7% for the three year period, 2-3 years ago, 1-2 years ago and last year, respectively.

### **7.2.1.3 Discouraged entrepreneurs**

The credit rationing literature talks of those entrepreneurs who are discouraged from applying for external credit because for a variety of reasons they perceive that their applications would be turned down. The survey allowed the identification of those businesses who were discouraged from applying and were in the entrepreneurs' opinions credible contenders for credit, and were thus not 'bad businesses'. In Table 7.1a, covering the three year period, 21.2%, 15.1% and 25.4% of all the entrepreneurs were discouraged from applying for credit over the three year period representing 2-3 years ago, 1-2 years ago and last year respectively.

Regarding discouraged entrepreneurs, the results show that: for novice entrepreneurs 28.2%, 19.5% and 33.6%; for serial entrepreneurs 6.6%, 9.8% and 11.5%; and for portfolio entrepreneurs 12.4%, 8.0% and 13.9% for the three year

period, 2-3 years ago, 1-2 years ago and last year, respectively. On the other hand, habitual entrepreneurs who were discouraged from applying for credit in the three year period recorded 10.6% for 2-3 years ago, 8.6% for 1-2 years ago and 13.1% for last year.

Entrepreneurs applying for bank credit are required by the banks to provide detailed and reliable business information and also to pledge collateral to secure the credit application (Malhotra et al., 2006; Inderst and Muller, 2007), hence their inability to apply for credit. Reasons cited by discouraged entrepreneurs include: the cumbersome nature of credit applications and the delays in processing credit applications (Webster 1991; Levy, 1993; Aryeetey et al 1994). Secondly, entrepreneurs who did not apply also cited the high interest rate and increasing collateral requirement as reasons for not applying (Blanchflower et al., 1998; Atieno, 1999; Bigsten et al., 2000; Beck et al., 2006).

Taken together the results in Table 7.1a and Table 7.1b show that credit rationing was 54.8% in the last 2-3 years, and this increased to 65.9% in the period 1-2 years ago, and then remaining at roughly two thirds, or more precisely 65.0% in the period covering the last year. In Table 7.1a the extent of credit rationing within the five categories are presented for novice, serial and portfolio entrepreneurs. In the period 2-3 years ago 64.1% of novice entrepreneurs were credit rationed compared to 26.2% of serial entrepreneurs and 47.4% of portfolio entrepreneurs. In the period 1-2 years ago 75.2% of novice entrepreneurs were credit rationed compared to 37.7% of serial entrepreneurs and 58.4% of portfolio entrepreneurs. In the period of

last year 75.2% of novice entrepreneurs were credit rationed compared to 34.4% of serial entrepreneurs and 56.2% of portfolio entrepreneurs.

In Table 7.1b, the extent of credit rationing within the five categories are presented for novice entrepreneurs and habitual (serial and portfolio) entrepreneurs. In the period 2-3 years ago 64.1% of novice entrepreneurs were credit rationed compared to 40.9% of habitual entrepreneurs. In the period 1-2 years ago 75.2% of novice entrepreneurs were credit rationed compared to 52.0% of habitual entrepreneurs. In the period of last year 75.2% of novice entrepreneurs were credit rationed compared to 49.5% of habitual entrepreneurs. Interestingly, in all three time periods the serial entrepreneurs were less likely to be credit constrained compared to the portfolio entrepreneurs, by a margin of approximately 20%.

The consistent decline in percentage terms of the full amount received, the reduced amount received and the increase in credit rejections over the three previous years are the results of an increase in adverse selection and moral hazard problems banks in Ghana are encountering. The liberalisation of the formal financial sector in Ghana in the last 15 years has resulted in the banking industry having 15 new entrants and making the environment a vibrant and competitive one. Most banks have now acquired a universal banking status and are competing for the small businesses that are in the majority for bank financing. The growing use of credit scoring techniques by banks and the statutory requirement by the Central bank for all credits to customers to be collateralised is a major factor in explaining the above results.

Another possible factor is the inability of small businesses to provide the required business information - business plans, audited financial statements, credit history and proven track records (Berger and Udell, 1998) and to pledge collateral (Zeller, 1994; Bigsten et al., 2000). According to the entrepreneurs interviewed, credit applications were to be accompanied with detailed and reliable business information and the provision of physical structures as collateral (Levy, 1993 pp. 72). It was the view of bank managers interviewed that the pledging of physical structures as collateral does not only send a favourable signal about the borrower's quality, but also helps to resolve the adverse selection and moral hazard problems (Stiglitz and Weiss, 1981; Bester, 1985; Chan and Kanatas, 1985, Besanko and Thakor, 1987; Cowling and Mitchell, 2003). The absence of collateral to secure a credit facility will lead to an outright rejection of a credit application or a reduced amount (Malhotra et al., 2006; Inderst and Muller, 2007).

### **7.2.2 Regression results**

Tables 7.2, 7.3 and 7.4, show the regression results for the models of credit rationing in the last year, the past 1-2 years ago, and 2-3 years ago, respectively. In each of the Tables 7.2, 7.3 and 7.4 there are five sets of regression results presented. Model 1 shows the results of credit rationing against the control variables of sector, location, size and the age of the business.

Model 2 augments the control variables with characteristics of the entrepreneurs and their businesses. The characteristics of the entrepreneurs were gender, education, age of the entrepreneur, and whether they had a relative who had

been in business before, where the later variable is attempting to capture whether the entrepreneur had a family role model of running a business.

Other characteristics of the business introduced include: whether the business exported goods or services, whether the business had introduced a product innovation, and also whether the business had brought into practice a process innovation. Model 3 shows the regression results of adding the years of experience to the variables included in Model 2. Then, models 4 and 5 augment model 2 and show the results of combining whether the entrepreneur was a habitual entrepreneur, and then a portfolio and serial entrepreneur, against novice entrepreneurs. The results in Table 7.2, 7.3 and 7.4 refer to the broadest definition of entrepreneurs unable to access finance.

Table 7.2: Estimates of a logit model of credit rationing in the last year

Credit Rationed	Model 1	Model 2	Model 3	Model 4	Model 5
Manufacturing	<b>-0.743 (0.448)<sup>c</sup></b>	<b>-0.871 (0.477)<sup>c</sup></b>	<b>-0.861 (0.479)<sup>c</sup></b>	<b>-0.813 (0.478)<sup>c</sup></b>	<b>-0.804 (0.479)<sup>c</sup></b>
Services	-0.579 (0.476)	-0.610 (0.504)	-0.625 (0.506)	-0.457 (0.506)	-0.467 (0.506)
Conurbations	<b>-0.971 (0.255)<sup>a</sup></b>	<b>-0.679 (0.282)<sup>b</sup></b>	<b>-0.685 (0.283)<sup>b</sup></b>	<b>-0.590 (0.286)<sup>b</sup></b>	<b>-0.590 (0.287)<sup>b</sup></b>
Small Towns	<b>0.855 (0.382)<sup>b</sup></b>	<b>0.692 (0.405)<sup>c</sup></b>	<b>0.675 (0.405)<sup>c</sup></b>	<b>0.736 (0.406)<sup>c</sup></b>	<b>0.721 (0.406)<sup>c</sup></b>
Size	<b>-0.021 (0.009)<sup>b</sup></b>	<b>-0.022 (0.011)<sup>b</sup></b>	<b>-0.023 (0.011)<sup>b</sup></b>	<b>-0.023 (0.011)<sup>b</sup></b>	<b>-0.019 (0.002)<sup>b</sup></b>
Age of Business	<b>0.054 (0.015)<sup>a</sup></b>	<b>0.048 (0.016)<sup>a</sup></b>	<b>0.092 (0.026)<sup>a</sup></b>	<b>0.042 (0.017)<sup>b</sup></b>	<b>0.039 (0.017)<sup>b</sup></b>
Gender	-----	-0.363 (0.290)	-0.393 (0.291)	-0.364 (0.295)	-0.391 (0.296)
Degree	-----	<b>-0.934 (0.247)<sup>a</sup></b>	<b>-0.908 (0.249)<sup>a</sup></b>	<b>-0.913 (0.252)<sup>a</sup></b>	<b>-0.904 (0.253)<sup>a</sup></b>
Age 18-30 years	-----	-0.693 (0.559)	-0.972 (0.673)	-0.824 (0.563)	-0.910 (0.566)
Age 31-45 years	-----	-0.297 (0.263)	-0.493 (0.377)	-0.366 (0.268)	-0.402 (0.270)
Age 61 or more	-----	-0.376 (0.437)	-0.261 (0.453)	-0.204 (0.450)	-0.162 (0.456)
Relative Role Model	-----	<b>0.666 (0.243)<sup>a</sup></b>	<b>0.677 (0.248)<sup>a</sup></b>	<b>0.692 (0.249)<sup>a</sup></b>	<b>0.666 (0.251)<sup>a</sup></b>
Exporter	-----	0.235 (0.298)	0.287 (0.302)	0.235 (0.306)	0.242 (0.306)
Product innovator	-----	0.267 (0.311)	0.303 (0.318)	0.359 (0.321)	0.413 (0.327)
Process innovator	-----	0.466 (0.304)	0.405 (0.312)	0.399 (0.311)	0.313 (0.321)
Years of Experience	-----	-----	<b>-0.063 (0.025)<sup>b</sup></b>	-----	-----
Habitual Entrepreneur	-----	-----	-----	<b>-0.927 (0.234)<sup>a</sup></b>	-----
Serial Entrepreneur	-----	-----	-----	-----	<b>-1.301 (0.369)<sup>a</sup></b>
Portfolio Entrepreneur	-----	-----	-----	-----	<b>-0.794 (0.253)<sup>a</sup></b>
Constant	<b>1.098 (0.502)<sup>b</sup></b>	<b>1.248 (0.343)<sup>b</sup></b>	<b>1.625 (0.670)<sup>b</sup></b>	<b>1.505 (0.644)<sup>b</sup></b>	<b>1.595 (0.649)<sup>b</sup></b>
Log likelihood	-276.51	-252.97	-249.50	-244.93	-244.05
% Correctly Classified	69.40	73.39	73.59	74.80	74.60
Pseudo R <sup>2</sup>	0.1475	0.2129	0.2237	0.2379	0.2406
n	496	496	496	496	496

<sup>a</sup> Statistically significant at the 0.01 level; <sup>b</sup> Statistically significant at the 0.05 level; <sup>c</sup> Statistically significant at the 0.10 level.



Table 7.3: Estimates of a logit model of credit rationing in the last 1-2 years

Credit Rationed	Model 1	Model 2	Model 3	Model 4	Model 5
Manufacturing	<b>-1.023 (0.435)<sup>b</sup></b>	<b>-1.206 (0.464)<sup>a</sup></b>	<b>-1.230 (0.470)<sup>a</sup></b>	<b>-1.150 (0.467)<sup>b</sup></b>	<b>-1.141 (0.467)<sup>b</sup></b>
Services	-0.739 (0.467)	-0.849 (0.692)	-0.891 (0.600)	-0.688 (0.497)	-0.697 (0.497)
Conurbations	-0.296 (0.247)	0.014 (0.275)	0.016 (0.278)	0.117 (0.279)	0.124 (0.279)
Small Towns	<b>0.881 (0.355)<sup>b</sup></b>	<b>0.727 (0.271)<sup>b</sup></b>	<b>0.702 (0.275)<sup>b</sup></b>	<b>0.775 (0.374)<sup>b</sup></b>	<b>0.760 (0.373)<sup>b</sup></b>
Size	<b>-0.018 (0.009)<sup>b</sup></b>	<b>-0.030 (0.011)<sup>a</sup></b>	<b>-0.031 (0.011)<sup>a</sup></b>	<b>-0.027 (0.011)<sup>b</sup></b>	<b>-0.027 (0.011)<sup>b</sup></b>
Age of Business	<b>0.059 (0.015)<sup>a</sup></b>	<b>0.045 (0.016)<sup>a</sup></b>	<b>0.113 (0.027)<sup>a</sup></b>	<b>0.040 (0.006)<sup>a</sup></b>	<b>0.036 (0.017)<sup>b</sup></b>
Gender	-----	-0.426 (0.284)	-0.474 (0.289)	-0.431 (0.290)	-0.458 (0.290)
Degree	-----	<b>-0.753 (0.244)<sup>a</sup></b>	<b>-0.722 (0.249)<sup>a</sup></b>	<b>-0.719 (0.249)<sup>a</sup></b>	<b>-0.711 (0.250)<sup>a</sup></b>
Age 18-30 years	-----	<b>-1.106 (0.541)<sup>b</sup></b>	<b>-1.529 (0.561)<sup>a</sup></b>	<b>-1.238 (0.546)<sup>b</sup></b>	<b>-1.331 (0.550)<sup>b</sup></b>
Age 31-45 years	-----	<b>-0.535 (0.256)<sup>b</sup></b>	<b>-0.831 (0.275)<sup>a</sup></b>	<b>-0.616 (0.261)<sup>b</sup></b>	<b>-0.658 (0.263)<sup>b</sup></b>
Age 61 or more	-----	-0.443 (0.425)	-0.253 (0.453)	-0.277 (0.435)	-0.237 (0.440)
Relative Role Model	-----	<b>0.595 (0.238)<sup>b</sup></b>	<b>0.606 (0.246)<sup>b</sup></b>	<b>0.618 (0.243)<sup>b</sup></b>	<b>0.591 (0.245)<sup>b</sup></b>
Exporter	-----	0.002 (0.284)	0.067 (0.291)	0.001 (0.292)	0.004 (0.292)
Product innovator	-----	0.038 (0.303)	0.086 (0.312)	0.101 (0.310)	0.155 (0.315)
Process innovator	-----	<b>0.635 (0.299)<sup>b</sup></b>	<b>0.562 (0.209)<sup>b</sup></b>	<b>0.574 (0.204)<sup>b</sup></b>	<b>0.593 (0.204)<sup>b</sup></b>
Years of Experience	-----	-----	<b>-0.095 (0.027)<sup>a</sup></b>	-----	-----
Habitual Entrepreneur	-----	-----	-----	<b>-0.888 (0.228)<sup>a</sup></b>	-----
Serial Entrepreneur	-----	-----	-----	-----	<b>-1.268 (0.354)<sup>a</sup></b>
Portfolio Entrepreneur	-----	-----	-----	-----	<b>-0.751 (0.247)<sup>a</sup></b>
Constant	<b>1.067 (0.491)<sup>b</sup></b>	<b>1.632 (0.633)<sup>b</sup></b>	<b>2.239 (0.675)<sup>a</sup></b>	<b>1.879 (0.637)<sup>a</sup></b>	<b>1.982 (0.642)<sup>a</sup></b>
Log likelihood	-284.41	-264.38	-256.58	-256.66	-255.65
% Correctly Classified	68.40	71.57	73.39	73.39	73.99
Pseudo R <sup>2</sup>	0.1145	0.1691	0.1936	0.1934	0.1966
n	496	496	496	496	496

<sup>a</sup> Statistically significant at the 0.01 level; <sup>b</sup> Statistically significant at the 0.05 level; <sup>c</sup> Statistically significant at the 0.10 level.

Table 7.4: Estimates of a logit model of credit rationing in the last 2-3 years

	Model 1	Model 2	Model 3	Model 4	Model 5
Manufacturing	-0.391 (0.352)	-0.378 (0.383)	-0.372 (0.387)	-0.338 (0.387)	-0.328 (0.386)
Services	-0.386 (0.390)	-0.494 (0.414)	-0.512 (0.419)	-0.361 (0.419)	-0.381 (0.420)
Conurbations	-0.301 (0.239)	-0.108 (0.262)	-0.110 (0.265)	-0.041 (0.266)	-0.034 (0.267)
Small Towns	<b>0.895 (0.321)<sup>a</sup></b>	<b>0.792 (0.333)<sup>b</sup></b>	<b>0.787 (0.336)<sup>b</sup></b>	<b>0.832 (0.335)<sup>b</sup></b>	<b>0.812 (0.335)<sup>b</sup></b>
Size	<b>-0.036 (0.009)<sup>a</sup></b>	<b>-0.031 (0.010)<sup>a</sup></b>	<b>-0.032 (0.011)<sup>a</sup></b>	<b>-0.029 (0.011)<sup>a</sup></b>	<b>-0.029 (0.011)<sup>a</sup></b>
Age of Business	<b>0.049 (0.014)<sup>a</sup></b>	<b>0.049 (0.016)<sup>a</sup></b>	<b>0.111 (0.027)<sup>a</sup></b>	<b>0.045 (0.016)<sup>a</sup></b>	<b>0.041 (0.016)<sup>a</sup></b>
Gender	-----	<b>-0.763 (0.269)<sup>a</sup></b>	<b>-0.801 (0.274)<sup>a</sup></b>	<b>-0.779 (0.272)<sup>a</sup></b>	<b>-0.817 (0.275)<sup>a</sup></b>
Degree	-----	<b>-0.581 (0.237)<sup>b</sup></b>	<b>-0.550 (0.241)<sup>b</sup></b>	<b>-0.565 (0.240)<sup>b</sup></b>	<b>-0.548 (0.242)<sup>b</sup></b>
Age 18-30 years	-----	<b>-0.832 (0.240)<sup>b</sup></b>	<b>-1.180 (0.557)<sup>b</sup></b>	<b>-0.921 (0.243)<sup>b</sup></b>	<b>-1.055 (0.349)<sup>b</sup></b>
Age 31-45 years	-----	-0.164 (0.242)	-0.395 (0.256)	-0.231 (0.246)	-0.282 (0.249)
Age 61 or more	-----	0.296 (0.414)	0.499 (0.441)	0.450 (0.425)	0.516 (0.432)
Relative Role Model	-----	<b>0.429 (0.237)<sup>c</sup></b>	<b>0.472 (0.244)<sup>c</sup></b>	<b>0.436 (0.240)<sup>c</sup></b>	<b>0.404 (0.242)<sup>c</sup></b>
Exporter	-----	<b>0.602 (0.272)<sup>b</sup></b>	<b>0.572 (0.277)<sup>b</sup></b>	<b>0.612 (0.276)<sup>b</sup></b>	<b>0.607 (0.276)<sup>b</sup></b>
Product innovator	-----	-0.201 (0.297)	-0.164 (0.306)	-0.145 (0.302)	-0.076 (0.309)
Process innovator	-----	0.283 (0.293)	0.235 (0.304)	0.246 (0.298)	0.142 (0.308)
Years of Experience	-----	-----	<b>-0.086 (0.027)<sup>a</sup></b>	-----	-----
Habitual Entrepreneur	-----	-----	-----	<b>-0.709 (0.218)<sup>a</sup></b>	-----
Serial Entrepreneur	-----	-----	-----	-----	<b>-1.292 (0.372)<sup>a</sup></b>
Portfolio Entrepreneur	-----	-----	-----	-----	<b>-0.524 (0.236)<sup>b</sup></b>
Constant	<b>0.533 (0.183)<sup>b</sup></b>	<b>1.045 (0.359)<sup>b</sup></b>	<b>1.499 (0.590)<sup>b</sup></b>	<b>1.242 (0.564)<sup>b</sup></b>	<b>1.392 (0.574)<sup>b</sup></b>
Log likelihood	-301.65	-284.36	-277.98	-279.02	-276.98
% Correctly Classified	65.0	69.56	70.56	69.35	68.55
Pseudo R <sup>2</sup>	0.1238	0.1673	0.1860	0.1829	0.1889
n	496	496	496	496	496

<sup>a</sup> Statistically significant at the 0.01 level; <sup>b</sup> Statistically significant at the 0.05 level; <sup>c</sup> Statistically significant at the 0.10 level.

### **7.2.2.1 Habitual entrepreneurship**

The results presented in Model 4 in Tables 7.2, 7.3 and 7.4, show that the habitual entrepreneurship variable appeared with a negatively signed coefficient and were all statistically significant at the 1% level. Thus, those entrepreneurs who were habitual entrepreneurs were less likely than the novice entrepreneurs to be credit rationed and that applied in all three time periods. These results are consistent with hypothesis H<sub>6</sub>.

Habitual entrepreneur with prior business ownership experience gained through previous business set-ups, mistakes and challenges have gained considerable knowledge in opportunity identification and exploitation compared to the novice entrepreneurs (Ucbasaran et al., 2008). Through learning from feedbacks and repeated transactions, habitual entrepreneurs have managed to build durable relationships and good reputations with lending institutions and therefore have a greater advantage in terms of the requirements of financial institutions compared with the novice entrepreneur (Binks and Ennew, 1997; Gimeno et al., 1997).

Secondly, habitual entrepreneur with prior ownership experience are more likely to provide their banks with relevant business information and collateral security (Ferrary, 2003; Green, 2003) than inexperienced entrepreneurs. Also through repeated transactions, habitual entrepreneurs are more likely to demonstrate consistency and integrity making them more favourable in accessing credit compared to the inexperienced entrepreneur who lacks the required track record to demonstrate capacity to perform (Williamson, 1981). Habitual entrepreneurs in possession of higher credit worthiness put them

in a better light in comparison to the novice entrepreneurs (Dei Ottati, 1994; Petersen and Rajan, 1994). This result is consistent with hypothesis H<sub>6</sub>.

#### **7.2.2.2 Serial and portfolio entrepreneurship**

Next, the results in Model 5 in Tables 7.2, 7.3 and 7.4, examined whether a more detailed breakdown of the nature of the habitual entrepreneurs compared to novice entrepreneurs has any relationship with credit rationing. Serial entrepreneurs were less likely to be credit rationed than the novice entrepreneurs in the last year, the period 1-2 years ago, and the period 2-3 years ago, and the results were statistically significant at the 1% level in all cases. This result is consistent with hypothesis H<sub>7</sub>. A similar pattern emerges for portfolio entrepreneurs compared to novice entrepreneurs. The Portfolio entrepreneur variables were statistically significant at the 1% level in Tables 7.2 and 7.3 and at the 5% level in Table 7.4. The findings suggest that portfolio entrepreneurs were less likely to be credit rationed compared with novice entrepreneurs. This result is consistent with hypothesis H<sub>8</sub>.

On average serial and portfolio entrepreneurs are more entrepreneurial than novice entrepreneurs (Westhead et al., 2004). They are therefore more likely to set-up new ventures, exploit opportunities and have greater access to resources through their experience compared to novice entrepreneurs (Westhead et al., 2005a). Serial and portfolio entrepreneurs through prior ownership experience are able to generate a much easier access to relevant information, build and develop business contacts and network connections with other business associated compared with the novice entrepreneur (Coleman, 1988; Adler and Kwon, 2002).

### **7.2.2.3 Education**

The models show that those entrepreneurs who possessed a degree were less likely than those without degrees to be credit rationed in all three time periods, and these results were statistically significant at the 5% level or better. 'Education is a key constituent of the human capital needed for business success' (Storey, 1994 pp.129). It is argued that education provides the basis for the acquisition of the required skills for business development and success. In the models 2 to 5 for all the three time periods, it is evidently clear that greater human capital translates into a greater likelihood of obtaining credit. This result is consistent with hypothesis H<sub>9</sub>.

### **7.2.2.4 Innovation**

The results show that the process innovation variable appeared with a positively signed coefficient in all the time periods which were investigated, but it was only in Models 2-5 in the period 1-2 years ago that the process innovation variable was statistically significant at the 5% level. This result is consistent with hypothesis H<sub>11</sub>. One of the reasons cited by the process innovators in the study for their limited access to credit was their inability to provide collateral security to support their credit application (Freel, 2000). Banks therefore perceived these innovators as high risk businesses because they have poor collateral value and in the event of a commercial failure innovation has little salvage value (Baldwin et al., 2002; OECD, 2004). The cycle of innovation is complex. It may begin with an idea of a product, then a prototype development and testing. It then goes through the initial production, additional refinement and market testing and finally product sales.

The credit managers interviewed, cited reasons such as their inability to predetermine the future cash flows of these projects (Seaton and Walker, 1997). Financing this complex, risky and uncertain project implies making a lending decision under conditions of uncertainty. This is obviously an unattractive investment to many financiers; hence the credit rationing (Westhead and Storey, 1997; Freel, 1999). Secondly, the bank managers also cited the perceived high risk associated with process innovation due to the high probability of failure (Jensen and McGuckin, 1997).

Thirdly, bank managers see the lack of transparency and the technical and managerial competencies of the entrepreneurs in the innovative process as a disincentive to invest in (Hewitt-Dundas, 2006). Fourthly, the high costs of conducting due diligence and also the monitoring of investments are often cited for the lack of interest in financing process innovation (Boocock and Woods, 1997). Fifthly, the inability of banks to determine the cash flows projections of the project are the results of a lack of adequate information from the entrepreneur to the banks leading to information asymmetry problems, hence the rationing of credit to small business entrepreneurs engaged in process innovation (Binks and Ennew, 1996).

On the other hand, regarding product innovation the coefficients were not statistically significant in all the three year periods. The results show positive coefficients in Tables 7.2 and 7.3 and a negative coefficient in Tables 7.4. This results suggested that entrepreneurs who introduced product innovation were more likely to be credit rationed in the last year and last 1-2 years ago supporting the hypothesis H<sub>12</sub>. Credit Managers interviewed cited a number of reasons for their reluctance in financing small business innovation. One of these reasons is

the indivisibility of research cost and adequate knowledge base of the innovative product by the entrepreneurs (Bond et al., 2003).

Secondly, the location of small businesses to the source of finance can also influence access to innovation finance. The further away the small business is from the bank, the higher the transaction costs resulting from screening and monitoring activities (Mason and Harrison, 2002; Martin et al., 2002). Thirdly, this geographical location may also influence access to high quality staff including managerial and technical skills (Sunley et al., 2005). Fourthly, as a result of the above challenges, the problem of information asymmetry is higher with small business entrepreneurs engaged in product innovation due to the lack of track record, capacities and lack of collateral leading to high default rates (Christensen, 2007). Lastly, the general problem of competence mis-match between entrepreneurs and bank officials also affect innovation financing for small businesses. Whilst entrepreneurs tend to focus more on the technical possibility of their project than the financial management, bank officials on the other hand focus more on the financial possibilities than gaining technical understanding of the innovative project.

From the results in Table 7.4, representing the period 2-3 years, entrepreneurs who introduced product innovation were less likely to be credit rationed. Small businesses engaged in product innovation were less likely to be credit rationed if they are able to overcome the challenges stated above.

#### **7.2.2.5 Exporting**

In all the three year period last year, 1-2 years ago and 2-3 years ago exporters were more likely than non-exporters to be credit rationed and this

relationship was only statistically significant at the 5% level as shown in Table 7.4. This result is consistent with hypothesis H<sub>13</sub>. However, the results of the last year and the period 1-2 years ago, although showing positive correlation, are not statistically significant.

#### **7.2.2.6 Sector**

Model 1 is the base set of control variables against credit rationing. The control variables in Model 1 to Model 5 in Tables 7.2 and 7.3 show that manufacturing businesses were less likely than agricultural businesses to be credit rationed and this relationship was weakly statistically significant in the last year (Table 7.2), highly statistically significant in the period 1-2 years ago (Table 7.3), but not statistically significant in the period 2-3 years ago (Table 7.4).

Wolf (2004) observed that 62% and 52% of her sampled firms in both the agricultural and manufacturing sectors, respectively, indicated that access to credit and the high interest rates, respectively, were the major obstacles to their growth and development. She also indicated that the difficulty in accessing credit was mainly due to the lack of collateral (land title registration delays). The agricultural sector in particular was perceived to be a high risk sector and thus most banks and other financial institutions are unwilling to finance any project within the sector, even though its contribution to the national economy is significant (Aryeetey and Fenny, 2006).

The risk of lending to the agricultural sector is exacerbated by the inability of entrepreneurs in the sector to offer any appreciable collateral to support their credit application. In situations of loan default or bankruptcy, the unrecovered loan becomes a bad debt to the bank (Turvey and Weersink, 1997).



In a lending relationship, where the borrower's equity position in the investment is not affected by the bank's profit margin, the likelihood of credit rationing is inevitable (Smith, 1972; Baltzenberger, 1976). Banks are only likely to offer credit if the entrepreneur is willing to compensate for the risk associated with the lending by either paying a higher interest rate or by offering increased collateral.

#### **7.2.2.7 Size and Age of business**

The regression results in Tables 7.2, 7.3 and 7.4 showed that the size variable was statistically significant with a negatively signed coefficient in all the three time periods, the last year, 1-2 years ago and 2-3 years ago. Regarding the age of business variable, the results show a positively signed coefficient and statistically significant in all the three time periods, the last year, 1-2 years ago and 2-3 years ago. The results suggest that the larger the business, and also the older the business the less likely that the businesses were credit rationed and these were statistically significant at the 5% level or better over all three time periods. The greater the size of the businesses the greater the amount of resources and experience which they will have accumulated and this could make the lenders look more favourably upon those businesses. Abor and Biekpe (2006a) have argued that the age of a business is a determining factor in small business access to bank credit. Hall et al. (2004) asserted that age is positively related to long-term debt but negatively related to short-term debt. The result that it is the older businesses which are more likely to be credit rationed than the younger aged businesses is interesting and this could be explained by the older businesses being perceived as 'stagnant' and lacking the vitality and enthusiasm possessed by younger aged workers, but this remains a conjecture.

#### **7.2.2.8 Location**

The regression results in Tables 7.2, 7.3 and 7.4 showed that the conurbation variable appeared with a negatively signed coefficient in the last year and 2-3 years ago, but was only statistically significant in the last year's time period. The results however for the small town variable were different. It showed that for all time periods, the small town variable was statistically significant with a positively signed coefficient in all the models 1-5. These results suggest that entrepreneurs located in conurbations were less likely than those located in large towns to be credit rationed. Similarly, entrepreneurs located in small towns were more likely to be credit constrained than entrepreneurs located in large towns. Various studies have showed that for reasons of high cost transaction and perceived risks (Petersen and Rajan, 2002; Felsenstein and Fleischer, 2002), information asymmetry (Agarwal and Hauswald, 2006) entrepreneurs located further away from their banks are more likely to be credit rationed (DeYoung et al., 2008b).

#### **7.2.2.9 Gender**

The survey consisted of 78% male entrepreneurs and 22% female entrepreneurs. One major challenge entrepreneurs' face in running their business is their ability to access the needed finance for their business (Marlow and Patton, 2005). Blanchflower et al., (2003) noted that gender discrimination in the credit market will exist if loan approval rates or interest rates charged differ amongst persons with homogeneous characteristics regarding their ability to repay. In all of the models men were less likely than women to be credit rationed, but this was only statistically significant in Models 2 to 5 of Table 7.4

in the period 2-3 years ago. Evidence has shown that female entrepreneurs do experience additional disadvantage than their male counterparts in accessing finance (Steel and Webster, 1992; Zeller, 1994; van Straveren, 2001). A number of reasons can be ascribed for this phenomenon.

Firstly, it is argued that at the micro-level income generation is different, with men having higher levels of education and occupying higher positions in formal employment and thus can earn more income than the women who are mainly engaged in informal employment activities or occupy lower positions in the formal sector (Steel and Webster, 1992; van Straveren, 2001). Secondly, female entrepreneurs often lack the required collateral to secure a bank credit because in most cases, their property is registered in the name of the male partner (van Straveren, 2001), and therefore are unable to apply for credit (Zeller, 1994). Thus the female entrepreneur's access to finance from formal institutions is disadvantaged because they are unable to meet the terms and conditions for these facilities (van Straveren, 2001).

Thirdly, female entrepreneurs are most often restricted in their control and access to family lands and property (Deere and Leon, 2001), and capital (Fletschner, 2006). Again female entrepreneurs have greater challenges developing relevant experiences in view of their household roles and social norms (Kevane, 2004; Fletschner and Carter, 2008), have access to social contacts and resources (Cooper et al., 1994) These challenges constrain female entrepreneurs in their access to credit and other resources thus affecting their output and efficiency compared to their male counterparts (Fletschner, 2008).

Fourthly, Abor (2006) using data from a sample of Ghanaian non-traditional exports to determine differences in obtaining formal finance between

male and female-owned firms found that women are disadvantaged as a result of an adverse discrimination in the lending process. Abor (2006) noted that women are either discouraged or unfairly denied credit during the application process thus limiting their access to credit. He therefore, concluded that female entrepreneurs are more likely to rely on informal sources of finance because of the reluctance of formal financial institutions to lend to them. Female entrepreneurs are therefore more likely to be credit rationed compared with male entrepreneurs.

#### **7.2.2.10 Numbers of years of experience**

Model 3 in each of Tables 7.2, 7.3 and 7.4 shows that in all three time periods the larger the number of years of experience then the less likely that the entrepreneurs were credit rationed, and these results were statistically significant at the 5% level or better. The results are therefore consistent with Hypothesis 3a. A number of studies have shown that entrepreneurs with prior ownership experience are more likely to perform better than inexperienced entrepreneurs (Westhead, 1995; Storey, 1998; Baron and Ensley, 2006; Ucbasaran et al., 2006). The entrepreneur experience enhances access to and use of relevant business information (Lord and Maher, 1990).

The greater the number of years of experience the more mature the entrepreneurs may become in a business environment and on a trial-and-error basis the entrepreneurs may have improved their professionalism. This can be translated into financial institutions being more willing to lend to entrepreneurs with more experience than the fresh or new entrepreneurs without any experience of owning and running a business. Experienced entrepreneurs may therefore have

an improved access to bank credit compared to the inexperienced novice entrepreneur (Wright et al., 1997a, b).

### **7.2.3 Differences in definitions of access to finance**

In order to gain a greater understanding of access to finance and the sensitivity of the results to different definitions of credit rationing the models reported in Tables 7.2, 7.3 and 7.4 was re-run. More specifically, in Tables 7.5, 7.6 and 7.7 the results are reported for logit regression models of those businesses which applied for finance and received no external finance in the periods the last year, 1-2 years ago, and 2-3 years ago respectively. In each table in order to save space and for greater ease of interpretation the coefficients are only reported for: habitual, followed by serial and portfolio entrepreneurs, and then for years in business. The models adopt the same independent variables which were reported in Tables 7.2, 7.3 and 7.4.

In Tables 7.5, 7.6 and 7.7 the habitual entrepreneur variable is statistically significant at the 5% level or better which is in support of hypothesis  $H_6$ . Whilst when the models were re-run with serial and portfolio dummy variables included instead of habitual entrepreneurs the results are highly supportive of hypotheses  $H_7$  and  $H_8$  with the coefficients all statistically significant at the 1% level with the exception of serial entrepreneurs in Table 7.5. Then, the measure of entrepreneurship was captured by the number of years in business. This variable was weakly statistically significant at the 10% level in Tables 7.6 and 7.7 and was not statistically significant in Table 7.5. Thus, the evidence is only weakly in support of hypothesis  $H_{10}$ . The coefficients for degree, product and process

innovation and exporting followed the same patterns of statistical significance which were reported in Tables 7.2, 7.3 and 7.4.

Finally, the regression results were re-run to look at those businesses which had applied for finance and which had received a reduced amount of external finance. These regression results are reported in Tables 7.8, 7.9 and 7.10, respectively. The same methodology which was applied to produce 7.5, 7.6 and 7.7 is adopted in producing the regression results.

Habitual entrepreneurship was statistically significant at the 1% level in Tables 7.9 and 7.10 but was not statistically significant in Table 7.8. Thus, the results are generally in support of hypothesis  $H_6$ . The model was then re-run with our two entrepreneurship dummies – serial and portfolio – included, and with novice entrepreneurs being the comparison category. The serial and portfolio dummy variables were statistically significant at the 1% level in the periods 1-2 years ago and 2-3 years ago but were not statistically significant in the most recent time period of the last year. Again these results can be interpreted as generally in support of hypotheses  $H_7$  and  $H_8$ . In the case of the third measure of entrepreneurship, the number of years in business, the variable was only statistically significant in one model and that was the period covering 1-2 years ago. Thus, there is little evidence to support hypothesis  $H_{10}$ . Again the pattern of results and the level of significance for possession of a degree, product and process innovation, and exporting for those applying for finance and receiving a reduced amount were similar to those reported in Tables 7.2, 7.3 and 7.4 and accordingly are not reported in the following Tables.

Table 7.5 Applied for finance and received no external finance in the last year.

	Coefficient and Standard Errors in Parentheses	Pseudo R <sup>2</sup>	n	% Correctly Classified
Years in Business	0.023 (0.038)	0.2708	241	73.86
Habitual	<b>-0.655 (0.323)<sup>b</sup></b>	0.2825	241	73.44
Serial	-0.757 (0.595)	0.2826	241	73.86
Portfolio	<b>-0.630 (0.145)<sup>a</sup></b>			

<sup>a</sup> Statistically significant at the 0.01 level; <sup>b</sup> Statistically significant at the 0.05 level; <sup>c</sup> Statistically significant at the 0.10 level.

Table 7.6 Applied for finance and received no external finance in the period 1-2 years ago.

	Coefficient and Standard Errors in Parentheses	Pseudo R <sup>2</sup>	n	% Correctly Classified
Years in Business	<b>-0.071 (0.041)<sup>c</sup></b>	0.2429	313	76.36
Habitual	<b>-0.332 (0.028)<sup>a</sup></b>	0.2367	313	76.36
Serial	<b>-0.579 (0.120)<sup>a</sup></b>	0.2374	313	76.04
Portfolio	<b>-0.270 (0.051)<sup>a</sup></b>			

<sup>a</sup> Statistically significant at the 0.01 level; <sup>b</sup> Statistically significant at the 0.05 level; <sup>c</sup> Statistically significant at the 0.10 level.

Table 7.7 Applied for finance and received no external finance in the period 2-3 years ago.

	Coefficient and Standard Errors in Parentheses	Pseudo R <sup>2</sup>	n	% Correctly Classified
Years in Business	<b>-0.092 (0.048)<sup>c</sup></b>	0.3083	273	90.84
Habitual	<b>-0.124 (0.027)<sup>a</sup></b>	0.2879	273	90.84
Serial	<b>-0.148 (0.041)<sup>a</sup></b>	0.2879	273	90.84
Portfolio	<b>-0.118 (0.024)<sup>a</sup></b>			

<sup>a</sup> Statistically significant at the 0.01 level; <sup>b</sup> Statistically significant at the 0.05 level; <sup>c</sup> Statistically significant at the 0.10 level.

Table 7.8 Applied for finance and received a reduced amount of external finance in the last year.

	Coefficient and Standard Errors in Parentheses	Pseudo R <sup>2</sup>	n	% Correctly Classified
Years in Business	-0.044 (0.033)	0.2700	241	65.56
Habitual	-0.196 (0.292)	0.2656	241	66.39
Serial	-0.569 (0.511)	0.2681	241	67.63
Portfolio	-0.096 (0.311)			

<sup>a</sup> Statistically significant at the 0.01 level; <sup>b</sup> Statistically significant at the 0.05 level; <sup>c</sup> Statistically significant at the 0.10 level.



Table 7.9 Applied for finance and received a reduced amount of external finance in the period 1-2 years ago.

	Coefficient and Standard Errors in Parentheses	Pseudo R <sup>2</sup>	n	% Correctly Classified
Years in Business	<b>-0.102 (0.040)<sup>b</sup></b>	0.2799	313	65.18
Habitual	<b>-0.327 (0.113)<sup>a</sup></b>	0.2644	313	61.02
Serial	<b>-0.640 (0.201)<sup>a</sup></b>	0.2660	313	61.98
Portfolio	<b>-0.242 (0.083)<sup>a</sup></b>			

<sup>a</sup> Statistically significant at the 0.01 level; <sup>b</sup> Statistically significant at the 0.05 level; <sup>c</sup> Statistically significant at the 0.10 level.

Table 7.10 Applied for finance and received a reduced amount of external finance in the period 2-3 years ago.

	Coefficient and Standard Errors in Parentheses	Pseudo R <sup>2</sup>	n	% Correctly Classified
Years in Business	-0.013 (0.028)	0.2889	280	62.86
Habitual	<b>-0.238 (0.043)<sup>a</sup></b>	0.2903	280	63.57
Serial	<b>-0.759 (0.181)<sup>a</sup></b>	0.2951	280	62.86
Portfolio	<b>-0.893 (0.211)<sup>a</sup></b>			

<sup>a</sup> Statistically significant at the 0.01 level; <sup>b</sup> Statistically significant at the 0.05 level; <sup>c</sup> Statistically significant at the 0.10 level.

### 7.3 Conclusion

This chapter has looked at credit rationing in Ghana from a survey covering a period of time up to three years prior to the time of the survey with hypotheses related to the experience and level of human capital of the entrepreneur. It is important to understand credit rationing because credit rationing can hinder the expansion and development of businesses and in the context of an emerging nation such as Ghana which needs to advance to alleviate poverty and create jobs that could be hindered by credit rationing. Moreover, a greater awareness of credit rationing can allow both businesses and policy makers alike to contemplate how their behaviours and actions can be reviewed to help reduce the extent of credit rationing.

The findings of the study indicated that habitual entrepreneurs with prior knowledge of business ownership were less likely compared with novice entrepreneurs to be credit rationed. Similarly, both serial and portfolio entrepreneurs were less likely to be credit rationed compared with novice entrepreneurs (Adler and Kwon, 2002; Westhead et al., 2005). These results are consistent with hypotheses H<sub>6</sub>, H<sub>7</sub> and H<sub>8</sub>. The findings of the study also supported hypothesis H<sub>9</sub> where entrepreneurs with higher levels of education were found to be less likely to be credit rationed. Entrepreneurs with prior business ownership experience were found to be less likely to be credit rationed thus supporting hypothesis H<sub>10</sub>. Similarly, H<sub>11</sub>, H<sub>12</sub> and H<sub>13</sub> were supported by the finding that entrepreneurs engaged in process and product innovation and not exporting were more likely to be credit rationed compared with entrepreneurs not involved in product innovation and exporting.

In addition to the above findings, the rerunning of the logit regression models for entrepreneurs who applied for finance and received no external finance and those who received a reduced amount over the three year period suggested results in support of some hypotheses. Regarding entrepreneurs who applied for finance and received no external finance, the results suggested that habitual, serial and portfolio entrepreneurs were less likely to be credit constrained compared to novice entrepreneurs. These results are consistent with hypotheses H<sub>6</sub>, H<sub>7</sub> and H<sub>8</sub> respectively. Similarly, regarding entrepreneurs who applied for finance and received a reduced amount of external finance, the results also suggested that habitual, serial and portfolio entrepreneurs were less likely to be credit rationed compared with novice entrepreneurs. These results are also consistent with hypotheses H<sub>6</sub>, H<sub>7</sub> and H<sub>8</sub> respectively.

Furthermore, the results also suggested that entrepreneurs engaged in the manufacturing sector were less likely to be credit rationed compared with entrepreneurs in the agricultural sector. The results also suggested that entrepreneurs located in conurbations were less likely to be credit rationed compared to entrepreneurs in large towns. Similarly entrepreneurs located in small towns were more likely to be credit rationed compared to entrepreneurs located in large towns. Male entrepreneurs were less likely than female entrepreneurs to be credit rationed but this was only statistically significant in the models which covered the period 2-3 years ago. Entrepreneurs with prior ownership experience and higher levels of human capital were less likely to be credit rationed compared with inexperienced entrepreneurs (Rondstadt, 1988).

The findings in this chapter have identified various factors as influencing the entrepreneur's access to external finance. The next chapter which is a

continuation of this chapter examines the influence of distance as one of those factors influencing entrepreneur's access to external finance.

## Chapter 8

### Entrepreneur-Bank Distance and Geographical Credit Rationing

#### 8.1 Introduction

The previous chapter has examined the credit rationing of novice, serial and portfolio entrepreneurs. The findings suggested that novice entrepreneurs were more likely to be credit rationed compared with serial and portfolio entrepreneurs. One of the factors identified as a contributing factor in the determination of an entrepreneur being credit rationed was the location of the individual entrepreneur in relation to the source of external finance. This chapter therefore examines the relevance of geographical distance between the entrepreneur and the lending banks and the entrepreneur's access to external finance and geographical credit rationing. This chapter is therefore a continuation of the previous chapter. However, the following observations need to be made: that in the chapter eight models, the years of experience, the serial entrepreneur and the portfolio entrepreneur dummy variables were not statistically significant. Hence, they are not reported, rather the habitual entrepreneur variables are reported. Besides, as the chapter investigates the geographical credit rationing of small business entrepreneurs, the distance variables were rather introduced and reported.

During the last two decades several studies have shown a substantial increase in the geographical distance between banks and their borrowers (Cyrnak and Hannan, 2001; Wolken and Rohde, 2002; Petersen and Rajan, 2002; Brevoort and Hannan, 2006; DeYoung et al., 2008b). Structural changes in the

banking industry have also resulted in technological progress and have in many ways contributed to the widening of the geographical distance (Petersen and Ragan, 2002; Hauswald and Marquez, 2003; DeYoung et al., 2004; Degryse and Ongena, 2004; Berger and DeYoung, 2006; Cerqueiro et al., 2007). Additionally, bank consolidations (Berger et al., 1999) and improvements in communication technology (DeYoung et al., 2008b) have also enhanced the geographical distance.

These increases in geographical distance between entrepreneurs and their banks have largely occurred in the advanced economies such as the United States of America (Petersen and Rajan 2002), Italy (Alessandrini et al., 2006), and the Netherlands (Degryse and Ongena, 2005). Credit appraisals are done by applying credit scoring models and 'hard' quantitative information to process loan applications including those of small businesses (Malhotra and Malhotra, 2003; Hsieh, 2005; Berger and Frame, 2007). In spite of the increase in geographical distance, the improvements in communication technology and the deregulation of the banking industry have impacted greatly on the acquisition of business information and its influence on commercial lending decisions of banks (loan pricing and credit availability) (DeYoung et al., 2004).

However, in most developing countries, specifically in Ghana, for example, banks are rather increasing their branches and this is occurring mostly in conurbations and large towns (Acquah, 2008). However, the increases in bank branches are not being experienced in small towns. Secondly, almost all banks in Ghana have centralised their credit approval beyond the mandate of the branch managers. This situation has resulted in an increase in the functional distances between the entrepreneurs located in small towns and their banks' credit

approval centres located in the capital city (conurbation); thus, adversely affecting the availability of credit (Alessandrini et al., 2006). Small business lending is often characterised by information asymmetry problems, hence most lending banks adopt the process of building a bank-entrepreneur lending relationship which is more effective by proximity (Meyer 1998; Stein 2002; Scott 2004; Elyasiani and Goldberg, 2004).

The risk level of a business can be seen in the size, age, management, market, entrepreneurial experience, access to credit, and availability of collateral to secure credit and the location of the business or the entrepreneur (Binks et al., 1992; Mason and Harrison, 1993; Felsenstein and Fleischer 2002). Banks are reluctant in extending credit to small businesses because they are unable to provide adequate information about their businesses (Petersen and Rajan, 1994), have no proven track record of past performance due to poor education (Okurut et al., 2005; Tagoe et al., 2005), operate under very high risk conditions, have a high probability of default (Binks et al. 1992), combined with high transaction costs, the unavailability of collateral to access credit, and uncertain markets (Binswanger and Rosenzweig, 1986; Hoff and Stiglitz, 1993; Felsenstein and Fleischer, 2002). Banks are also reluctant in lending to small businesses because they encounter challenges in screening, monitoring and ensuring enforcement of the contract (Degryse and Ongena, 2005; Petrick, 2005).

Further exacerbating this situation is the peripheral or remote location of the small business (Binks et al 1992; Mason and Harrison, 1993). In fact, the problem of asymmetric information is increased where the small business is peripherally located (Mason and Harrison, 1993; Degryse and Ongena, 2005; Agarwal and Hauswald, 2006). The result of this situation is an asymmetric flow

of information in which entrepreneurs possess more knowledge about their ability to repay the loan than the banks possess (Aleem, 1990). To mitigate the information asymmetry problems banks will attempt to minimize the level of risk by requesting for collateral or a guarantor which in most cases the small business entrepreneur lacks (Elsas and Krahn, 2002; Manove et al., 2001; Cowling and Mitchell, 2003; Inderst and Muller, 2007) or reject the application outright or ration the credit of the small business entrepreneur (Stiglitz and Weiss, 1981; Malhotra et al., 2006).

As a continuation of the previous chapter, the definitions of credit rationed, credit constraint and discouraged borrowers are similar. The chapter is organised as follows. Section two presents the empirical findings and section three concludes the chapter.

## **8.2 Empirical findings**

### **8.2.1 Geographical distance**

Tables 8.1, 8.2 and 8.3 show the logit regression results for the models of credit rationing in the last year, the past 1-2 years ago, and 2-3 years ago, respectively, with each table having four models. The location of the entrepreneurs is represented by three dummy variables: conurbations, large towns and small towns. In the models the excluded comparison location variable was large towns. Then the two distance variables were introduced, in separate models. The distance variable consists of a natural log on the distance between the business, and then one at a time: the preferred bank branch (Distance–Preferred Bank) and the business against their closest competitive bank branch (Distance – Closest Bank). In each of the tables a model is presented of the



original model and all of the variables it would be logical to expect to have relationships with credit rationing. Then a best fit model is reported.

Geographical distance can create an imperfection in the competitive environment of entrepreneurs and financial institutions leading to market imperfections. Again, the geographical distance is able to alter the market power closest to the business located nearest to the bank; making banks located further away competitively disadvantaged (Cerqueiro et al., 2007). The result is that banks further away from these businesses may require an additional effort in establishing a banking relationship with these businesses. Besides, banks and their customers further away may have to bear additional transportation costs between them in any banking relationship. Moreover, banks will need to make additional efforts to gather business information about their customers and also to monitor previous investments.

The availability of credit to entrepreneurs and their businesses tends to decline with an increase in geographical distance (Agarwal and Hauswald, 2006). An increase in geographical distance between the bank and the business creates some imperfections in the credit market as it becomes very difficult for banks to gather strategic business information from entrepreneurs and more especially with small and novice entrepreneurs (Petersen, 2004; Stein, 2002; Brevoort and Hannan, 2006).

The chapter conjectured that the impact of credit rationing will increase with distance. In Table 8.1, representing the last year, a positive and a significant coefficient was recorded in model 4 on the natural log of the distance between the closest bank and the entrepreneur. This suggests that entrepreneurs located

further away from their closest competitive banks are more likely to be credit rationed (Petersen and Rajan, 2002; Felsenstein and Fleischer, 2002).

In Table 8.2, representing the last 1-2 years ago, a similar result was recorded in model 8 indicating that entrepreneurs further away from their closest competitive bank branch are more likely to be credit rationed. However, in Table 8.3, representing the period of the last 2-3 years, the results show positive and statistically significant coefficients for both distance variables for the preferred banks and closest competitive banks. The positive and statistically significant coefficients results in models 9 and 10 on the entrepreneurs' preferred bank branch distance variables indicates that entrepreneurs located further away from their preferred bank branch are more likely to be credit rationed. The distance variables related to the closest competitive banks in models 11 and 12 were again statistically significant and the results are consistent with the other two time periods.

Taken together the results indicated above imply that the geographical distance between entrepreneurs, and their preferred and closest competitive bank branches are good proxies for banks to ration credit. The further away businesses are from their banks, the more likely that they will be credit rationed. This result is consistent with hypothesis  $H_{14}$ . The relationship between distance and the preferred banks is only consistent with hypothesis 1 for the period 2-3 years ago. The reason for this is that there has been an increase in the number of banks and bank branches in Ghana. By the end of 2004, there were 17 banks operating in Ghana. This increased to 23 banks by the end of 2006 (BOG, 2006). Bank branches have also increased over the years from 295 branches in 2003 to 377 in 2005 (Bawumia, 2007).

Table 8.1: Estimates of logit models of credit rationing in the last year

Credit Rationed	Model 1	Model 2	Model 3	Model 4
Manufacturing	<b>-0.645 (0.363)<sup>c</sup></b>	-----	<b>-0.629 (0.362)<sup>c</sup></b>	-----
Services	-0.646 (0.429)	-----	-0.637 (0.424)	-----
Conurbations	<b>-1.086 (0.315)<sup>a</sup></b>	<b>-0.585 (0.312)<sup>c</sup></b>	<b>-1.095 (0.316)<sup>a</sup></b>	<b>-0.519 (0.313)<sup>c</sup></b>
Small Towns	<b>1.326 (0.358)<sup>a</sup></b>	<b>1.336 (0.438)<sup>a</sup></b>	<b>1.337 (0.373)<sup>a</sup></b>	<b>1.181 (0.452)<sup>a</sup></b>
Size	<b>-0.025 (0.012)<sup>b</sup></b>	<b>-0.024 (0.011)<sup>b</sup></b>	<b>-0.023 (0.012)<sup>b</sup></b>	<b>-0.023 (0.011)<sup>b</sup></b>
Age of Business	<b>0.015 (0.017)</b>	<b>0.035 (0.017)<sup>b</sup></b>	<b>0.014 (0.017)</b>	<b>0.035 (0.017)<sup>b</sup></b>
Gender	-0.162 (0.301)	-----	-0.167 (0.300)	-----
Degree	<b>-1.093 (0.292)<sup>a</sup></b>	<b>-1.056 (0.278)<sup>a</sup></b>	<b>-1.410 (0.92)<sup>a</sup></b>	<b>-1.052 (0.279)<sup>a</sup></b>
Age 18-30 years	0.119 (0.619)	-----	0.078 (0.617)	-----
Age 31-45 years	0.172 (0.272)	-----	0.159 (0.271)	-----
Age 61 or more	0.254 (0.458)	-----	0.265 (0.460)	-----
Relative Role Model	<b>0.479 (0.274)<sup>c</sup></b>	<b>0.546 (0.265)<sup>b</sup></b>	<b>0.664 (0.274)<sup>b</sup></b>	<b>0.533 (0.267)<sup>b</sup></b>
Exporter	0.351 (0.302)	-----	0.369 (0.300)	-----
Product innovator	0.497 (0.369)	-----	0.482 (0.365)	-----
Process innovator	0.289 (0.363)	-----	0.281 (0.359)	-----
Natural G11	0.033 (0.120)	0.150 (0.126)	-----	-----
Natural G12	-----	-----	0.011 (0.127)	<b>0.249 (0.142)<sup>c</sup></b>
Habitual Entrepreneur	<b>-0.860 (0.422)<sup>b</sup></b>	<b>-0.849 (0.249)<sup>a</sup></b>	<b>-0.858 (0.422)<sup>b</sup></b>	<b>-0.858 (0.250)<sup>a</sup></b>
Constant	-0.542 (0.606)	<b>-0.739 (0.394)<sup>c</sup></b>	-0.565 (0.603)	<b>-0.809 (0.400)<sup>b</sup></b>
Log likelihood	-242.52	-211.347	-242.82	-210.505
% Correctly Classified	78.18	87.30	77.98	88.30
Pseudo R <sup>2</sup>	0.357	0.498	0.356	0.501
N	496	496	496	496

<sup>a</sup> Statistically significant at the 0.01 level; <sup>b</sup> Statistically significant at the 0.05 level; <sup>c</sup> Statistically significant at the 0.10 level.

Table 8.2: Estimates of logit models of credit rationing in the last 1-2 year

Credit Rationed	Model 5	Model 6	Model 7	Model 8
Manufacturing	<b>-0.865 (0.375)<sup>b</sup></b>	<b>-1.690 (0.492)<sup>a</sup></b>	<b>-0.820 (0.371)<sup>b</sup></b>	<b>-1.805 (0.521)<sup>a</sup></b>
Services	<b>-0.817 (0.441)<sup>c</sup></b>	<b>-1.579 (0.535)<sup>a</sup></b>	<b>-0.717 (0.432)<sup>c</sup></b>	<b>-1.618 (0.558)<sup>a</sup></b>
Conurbations	0.501 (0.320)	0.410 (0.310)	0.522 (0.321)	0.416 (0.312)
Small Towns	<b>1.055 (0.371)</b>	<b>1.166 (0.437)<sup>a</sup></b>	<b>0.353 (0.385)</b>	0.411 (0.481)
Size	<b>-0.001 (0.012)</b>	<b>-0.034 (0.011)<sup>a</sup></b>	<b>-0.026 (0.012)<sup>b</sup></b>	<b>-0.034 (0.011)<sup>a</sup></b>
Age of Business	0.037 (0.047)	-----	0.036 (0.047)	-----
Gender	-0.027 (0.303)	-----	-0.051 (0.301)	-----
Degree	<b>-0.598 (0.296)<sup>b</sup></b>	<b>-0.836 (0.276)<sup>a</sup></b>	<b>0.587 (0.295)<sup>b</sup></b>	<b>-0.805 (0.277)<sup>a</sup></b>
Age 18-30 years	-0.122 (0.615)	-----	-0.102 (0.615)	-----
Age 31-45 years	-0.067 (0.278)	-----	-0.082 (0.278)	-----
Age 61 or more	-0.423 (0.446)	-----	-0.386 (0.446)	-----
Relative Role Model	0.086 (0.275)	<b>0.469 (0.265)<sup>c</sup></b>	0.076 (0.275)	0.351 (0.269)
Exporter	0.194 (0.312)	-----	0.183 (0.310)	-----
Product innovator	0.655 (0.463)	-----	0.645 (0.359)	-----
Process innovator	0.546 (0.360)	0.368 (0.289)	0.551 (0.357)	0.441 (0.293)
Natural G11	-0.164 (0.120)	-0.015 (0.127)	-----	-----
Natural G12	-----	-----	0.036 (0.128)	<b>0.106 (0.040)<sup>a</sup></b>
Habitual Entrepreneur	<b>-0.782 (0.258)</b>	<b>-0.820 (0.248)<sup>a</sup></b>	<b>-0.782 (0.438)<sup>c</sup></b>	<b>-0.793 (0.250)<sup>a</sup></b>
Constant	0.300 (0.624)	0.752 (0.552)	0.405 (0.616)	0.539 (0.576)
Log likelihood	-237.82	-218.905	-238.71	-214.454
% Correctly Classified	79.60	90.5	78.99	90.5
Pseudo R <sup>2</sup>	0.350	0.453	0.347	0.473
N	496	496	496	496

<sup>a</sup> Statistically significant at the 0.01 level; <sup>b</sup> Statistically significant at the 0.05 level; <sup>c</sup> Statistically significant at the 0.10 level.

Table 8.3: Estimates of the best fit logit models of credit rationing in the last 2-3 year

Credit Rationed	Model 9	Model 10	Model 11	Model 12
Manufacturing	-0.386 (0.397)	-----	-0.378 (0.393)	-----
Services	-1.010 (0.894)	-----	-1.004 (0.887)	-----
Conurbations	-1.050 (0.388)	0.054 (0.277)	-0.976 (0.787)	0.122 (0.278)
Small Towns	<b>-0.897 (0.399)<sup>b</sup></b>	<b>1.011 (0.361)<sup>a</sup></b>	<b>-0.594 (0.242)<sup>b</sup></b>	<b>0.968 (0.376)<sup>b</sup></b>
Size	<b>-0.031 (0.015)<sup>b</sup></b>	<b>-0.041 (0.011)<sup>a</sup></b>	<b>-0.033 (0.015)<sup>b</sup></b>	<b>-0.039 (0.011)<sup>a</sup></b>
Age of Business	<b>-0.021 (0.021)</b>	<b>0.038 (0.016)<sup>b</sup></b>	<b>-0.023 (0.022)</b>	<b>0.037 (0.016)<sup>b</sup></b>
Gender	<b>-0.816 (0.381)<sup>b</sup></b>	<b>-0.877 (0.292)<sup>a</sup></b>	<b>-0.808 (0.382)<sup>b</sup></b>	<b>-0.874 (0.291)<sup>a</sup></b>
Degree	<b>-0.696 (0.322)<sup>b</sup></b>	<b>-0.695 (0.254)<sup>a</sup></b>	<b>-0.609 (0.298)<sup>b</sup></b>	<b>-0.691 (0.254)<sup>a</sup></b>
Age 18-30 years	-0.588 (0.692)	-0.557 (0.565)	-0.628 (0.693)	-0.560 (0.563)
Age 31-45 years	-0.086 (0.328)	-0.037 (0.260)	-0.107 (0.330)	-0.033 (0.259)
Age 61 or more	0.724 (0.492)	<b>1.084 (0.481)<sup>b</sup></b>	<b>0.666 (0.496)</b>	<b>1.057 (0.483)<sup>b</sup></b>
Relative Role Model	-0.197 (0.309)	-----	-0.225 (0.311)	-----
Exporter	<b>-0.647 (0.311)<sup>b</sup></b>	<b>-0.828 (0.286)<sup>a</sup></b>	<b>-0.654 (0.321)<sup>b</sup></b>	<b>-0.828 (0.286)<sup>a</sup></b>
Product innovator	-0.537 (0.415)	-----	-0.565 (0.416)	-----
Process innovator	-0.079 (0.412)	-----	-0.046 (0.413)	-----
Natural G11	<b>0.146 (0.146)<sup>b</sup></b>	<b>0.224 (0.113)<sup>b</sup></b>	-----	-----
Natural G12	-----	-----	<b>0.271 (0.156)<sup>c</sup></b>	<b>0.220 (0.123)<sup>c</sup></b>
Habitual Entrepreneur	<b>-0.631 (0.310)<sup>b</sup></b>	<b>-0.712 (0.228)<sup>a</sup></b>	<b>-0.613 (0.411)<sup>c</sup></b>	<b>-0.718 (0.228)<sup>a</sup></b>
Constant	0.253 (0.676)	0.009 (0.452)	0.203 (0.672)	0.000 (0.450)
Log likelihood	-186.64	-254.12	-185.60	-254.49
% Correctly Classified	85.45	79.20	85.66	78.80
Pseudo R <sup>2</sup>	0.3061	0.403	0.311	0.401
N	496	496	496	496

<sup>a</sup> Statistically significant at the 0.01 level; <sup>b</sup> Statistically significant at the 0.05 level; <sup>c</sup> Statistically significant at the 0.10 level.

The presence of banks and their branches have increased over the three year period (2004-2006) accounting for a reduction in the distance between businesses mostly located in conurbations and large towns and their preferred banks.

The results are consistent with those of Petersen and Rajan (2002) who found that in the United States, businesses located further away from their banks are more likely to be credit rationed. Similar results were found by Degryse and Ongena (2005); Amel and Brevoort, (2005); Brevoort and Hannan, (2006); and, Agarwal and Hauswald (2006). However, Carling and Lundberg, (2005) indicate an absence of spatial credit rationing in Sweden. Using data on corporate loans granted between the years 1994 and 2000, Carling and Lundberg (2005) empirically tested the existence of credit rationing between borrowing firms and their lending banks and found no evidence of geographical credit rationing.

An increase in geographical distance between entrepreneurs and their banks may lead to an increase in the cost of lending as credit officers or relationship managers may have to pay numerous visits to the sites of their credit applicants to gather soft information for credit decisions and also to monitor investments. The quality of the soft information will be dependent on the efforts of the relationship managers (Özyildirim and Önder, 2008). Spatial credit rationing is more likely to occur where banks cost of monitoring increases with distance (Porteous, 1995). The costs of these visits are increased by distance and, thus, banks are likely to reduce these visits leading to inefficient and less quality business information gathering, inaccurate credit appraisal, in turn leading to a decline in the quality of credit screening and the likelihood of an error in credit

decision making (Carling and Lundberg 2005; Degryse and Ongena, 2005; Hauswald and Marquez, 2006; DeYoung et al., 2008b).

Lending decisions, therefore, become inefficient as geographical distance increases (Hauswald and Marquez, 2006). This further leads to an increase in loan defaults (Agarwal and Hauswald, 2006; DeYoung et al., 2008b). Thus, the further away entrepreneurs are from their banks, the higher the likelihood that the management credit committee of the bank will disregard soft information and credit appraisals of their relationship managers on peripherally located businesses (Agarwal and Hauswald, 2006).

### **8.2.2 Location**

Next attention focuses upon location and the testing of the second hypothesis. Interestingly, the negative and significant coefficients on the conurbation variables were only statistically significant for last year (Table 8.1) suggesting that entrepreneurs located in conurbations were less likely to be credit rationed than entrepreneurs located in large towns. This result is consistent with hypothesis H<sub>15</sub>. Entrepreneurs prefer borrowing credit from banks closest to them in view of the advantages of a durable lending relationship that characterises this borrowing (Kwast et al., 1997). One main reason for this interesting result is the growing number of bank branches over the period (2004 - 2006) and beyond. Most of the banks in Ghana have increased their bank branches, and more specifically with the new foreign banks entering the country. Most of the branches launched within the period were located in conurbations and large towns. The presences of these branches facilitates entrepreneurs' access to

banking services, developing lending relationship and make access to bank credit much easier (Kempson and Jones, 2000; French, 2001).

Secondly, the positive and significant coefficients on the small town variables were statistically significant in all three periods suggesting that entrepreneurs located in small towns were more likely to be credit rationed compared to businesses located in large towns. This result is consistent with hypothesis H<sub>16</sub>. The results of the location variables from the three tables indicated that entrepreneurs located in conurbations were less likely to be credit rationed compared to entrepreneurs located in small towns who are more likely to be credit rationed. Several reasons can be assigned for these differences.

Firstly, entrepreneurs located in conurbations are more likely to be better educated, operate much larger businesses and possess greater entrepreneurial experience and information than their counterparts in the small towns (Binks et al., 1992; DeYoung et al., 2008a). Secondly, access to information both hard and soft information, and their quality decreases with distance, hence entrepreneurs located in small towns are more likely to encounter problems of information asymmetry (Hauswald and Marquez, 2006). Banks will therefore incur additional costs in gathering the soft information in view of the distance - especially where credit decisions are centred in the capital city, Accra (DeYoung et al., 2008b). The information asymmetry problems will make bank's assessment of risks difficult and lending decisions are likely to be less efficient (Hauswald and Marquez, 2006; Cerqueiro et al., 2007).

Thirdly, most entrepreneurs located in small towns lack the requisite collateral demanded by the banks to support their credit applications (Binks and Ennew, 1997; Tagoe et al., 2005), and this influences their access to finance



(Mason and Harrison, 1993). Fourthly, the absence or lack of competition by the banks in the small towns may also contribute to their high probability of being credit rationed (Felsenstein and Fleischer, 2002).

### **8.3 Differences in definitions of access to finance**

For a greater understanding of the influence on distance and access to finance and the sensitivity of the results to different definitions of credit rationing, a rerun of the models reported in Tables 8.1, 8.2 and 8.3 was done. The logit regression models for entrepreneurs who applied for finance and received no external finance in the periods the last year, 1-2 years ago, and 2-3 years ago are reported in Tables 8.4, 8.5 and 8.6 respectively. In each table in order to save space and for greater ease of interpretation the coefficients are only reported for: entrepreneurs located in conurbation, small town and dummy variables in natural logs representing the distance in kilometres between entrepreneurs and their preferred banks (G11) and between the entrepreneurs and their closest competitive bank (G12). The models adopted the same independent variables which were reported in Tables 8.1, 8.2 and 8.3.

In Tables 8.4, 8.5 and 8.6 the conurbation variable is statistically significant at the 10% level which is weakly in support of hypothesis H<sub>15</sub>. Similarly in Tables 8.4, 8.5 and 8.6, the small town variables were statistically significant at the 5% level or better and highly supportive of hypothesis H<sub>16</sub>. The results suggested that entrepreneurs located in small towns were more likely to be credit rationed compared with entrepreneurs located in large towns and conurbation. The results of the dummy variables on distance between entrepreneurs and their preferred banks was only statistically significant at the

5% level in Tables 8.4 and was not statistically significant in Tables 8.5 and 8.6. This evidence is only weakly in support of hypothesis  $H_{14}$ . Similarly, the results of the dummy variables on distance between entrepreneurs and their closest competitive banks was statistically significant at the 10% level or better for all three year periods. This strongly supports hypothesis  $H_{14}$ . The coefficients for degree, size, sex, and exporting followed the same patterns of statistical significance which were reported in Tables 8.1, 8.2 and 8.3.

Finally, the logit regression results were re-run for entrepreneurs who had applied for finance and had received a reduced amount of external finance were reported in Tables 8.7, 8.8 and 8.9 representing the three year periods: last year, last 1-2 years ago and last 2-3 years ago respectively. Similar methodology used in producing the results in Tables 8.4, 8.5 and 8.6 was adopted in producing this regression results. The results and suggestions are similar to those of Tables 8.4, 8.5 and 8.6 supporting hypotheses  $H_{15}$  and  $H_{16}$  and also hypothesis  $H_{14}$ .

Again the pattern of results and the level of significance for possession of a degree, degree, size, sex, and exporting followed the same patterns of statistical significance which were reported in Tables 8.1, 8.2 and 8.3.

Table 8.4 Applied for finance and received no external finance in the last year.

	Coefficient and Standard Errors in Parentheses	Pseudo R <sup>2</sup>	n	% Correctly Classified
Conurbation	<b>-0.742 (0.490)<sup>c</sup></b>	0.2855	241	73.86
Small Town	<b>0.275 (0.047)<sup>a</sup></b>			
Natural G11	<b>0.153 (0.148)<sup>b</sup></b>			
Conurbation	<b>-0.747 (0.388)<sup>c</sup></b>	0.2959	241	75.52
Small Town	<b>0.280 (0.052)<sup>a</sup></b>			
Natural G12	<b>0.332 (0.161)<sup>b</sup></b>			

<sup>a</sup> Statistically significant at the 0.01 level; <sup>b</sup> Statistically significant at the 0.05 level; <sup>c</sup> Statistically significant at the 0.10 level.

Table 8.5 Applied for finance and received no external finance in the period 1-2 years ago.

	Coefficient and Standard Errors in Parentheses	Pseudo R <sup>2</sup>	n	% Correctly Classified
Conurbation	0.917 (0.824)	0.2453	313	77.32
Small Town	<b>1.164 (0.499)<sup>b</sup></b>			
Natural G11	0.167 (0.151)			
Conurbation	0.993 (0.827)	0.2480	313	77.64
Small Town	<b>0.932 (0.517)<sup>c</sup></b>			
Natural G12	<b>0.306 (0.157)<sup>c</sup></b>			

<sup>a</sup> Statistically significant at the 0.01 level; <sup>b</sup> Statistically significant at the 0.05 level; <sup>c</sup> Statistically significant at the 0.10 level.

Table 8.6 Applied for finance and received no external finance in the period 2-3 years ago.

	Coefficient and Standard Errors in Parentheses	Pseudo R <sup>2</sup>	n	% Correctly Classified
Conurbation	-1.096 (0.918)	0.3183	280	91.21
Small Town	<b>0.741 (0.352)<sup>b</sup></b>			
Natural G11	0.544 (0.253)			
Conurbation	-1.015 (0.924)	0.3046	280	91.21
Small Town	<b>0.687 (0.340)<sup>b</sup></b>			
Natural G12	<b>0.235 (0.070)<sup>a</sup></b>			

<sup>a</sup> Statistically significant at the 0.01 level; <sup>b</sup> Statistically significant at the 0.05 level; <sup>c</sup> Statistically significant at the 0.10 level.

Table 8.7 Applied for finance and received a reduced amount of external finance in the last year.

	Coefficient and Standard Errors in Parentheses	Pseudo R <sup>2</sup>	n	% Correctly Classified
Conurbation	<b>-0.212 (0.105)<sup>b</sup></b>	0.2724	241	68.46
Small Town	<b>0.250 (0.083)<sup>a</sup></b>			
Natural G11	0.210 (0.142)			
Conurbation	<b>-0.223 (0.110)<sup>b</sup></b>	0.2858	241	65.98
Small Town	<b>0.235 (0.083)<sup>a</sup></b>			
Natural G12	<b>0.382 (0.151)<sup>b</sup></b>			

<sup>a</sup> Statistically significant at the 0.01 level; <sup>b</sup> Statistically significant at the 0.05 level; <sup>c</sup> Statistically significant at the 0.10 level.

Table 8.8 Applied for finance and received a reduced amount of external finance in the period 1-2 years ago.

	Coefficient and Standard Errors in Parentheses	Pseudo R <sup>2</sup>	n	% Correctly Classified
Conurbation	-0.223 (0.320)	0.2658	313	61.98
Small Town	<b>0.415 (0.202)<sup>b</sup></b>			
Natural G11	0.097 (0.126)			
Conurbation	-0.245 (0.322)	0.2689	313	62.30
Small Town	<b>0.380 (0.188)<sup>b</sup></b>			
Natural G12	<b>0.164 (0.081)<sup>b</sup></b>			

<sup>a</sup> Statistically significant at the 0.01 level; <sup>b</sup> Statistically significant at the 0.05 level; <sup>c</sup> Statistically significant at the 0.10 level.

Table 8.9 Applied for finance and received a reduced amount of external finance in the period 2-3 years ago.

	Coefficient and Standard Errors in Parentheses	Pseudo R <sup>2</sup>	n	% Correctly Classified
Conurbation	-0.188 (0.337)	0.2903	280	63.57
Small Town	<b>0.501 (0.224)<sup>b</sup></b>			
Natural G11	0.168 (0.131)			
Conurbation	-0.200 (0.339)	0.2956	280	63.21
Small Town	<b>0.570 (0.281)<sup>b</sup></b>			
Natural G12	<b>0.249 (0.082)<sup>a</sup></b>			

<sup>a</sup> Statistically significant at the 0.01 level; <sup>b</sup> Statistically significant at the 0.05 level; <sup>c</sup> Statistically significant at the 0.10 level.

## 8.4 Conclusion

This chapter assesses the relevance of geographical distance between entrepreneurs and their preferred banks and entrepreneurs and their closest competitive banks and accessibility of bank credit. Geographical distance between entrepreneurs and their banks could determine the banks access to relevant information, the banks ability to efficiently assess entrepreneurs and determine their creditworthiness. It may also influence the banks ability to monitor investments. Geographical distance therefore matters to the banks lending decision, as the further away a business is from its bank the more likely the problem of information asymmetry and its risks increases, hence the greater the credit rationing probability (Felsenstein and Fleischer, 2002).

This chapter also investigated whether information asymmetry increases in relation to geographical distance and explore the likelihood that banks will ration credit to entrepreneurs located further away from them. The chapter relied on a new set of data from a survey of small businesses located in the 6 districts of the Greater Accra Region of Ghana. The chapter draws conclusions on the spatial credit rationing of small business using geographical distance between the entrepreneur and the bank as the casual variable.

The results of the regression models show positive and statistically significant coefficients suggesting that entrepreneurs further away from their preferred bank branch and also their closest competitive bank branch are more likely to be credit rationed (Petersen and Rajan, 2002; Agarwal and Hauswald, 2006; Alessandrini et al., 2006). An increase in geographical distance between entrepreneurs and their banks may lead to an increase in the cost of lending (Degryse and Ongena, 2005). Banks are likely therefore to reduce site visits and

monitoring of projects leading to less quality business information gathering, inaccurate credit appraisal leading to a decline in the quality of credit screening and the likelihood of an error in making credit decisions (Carling and Lundberg, 2005). Thus the further away entrepreneurs are from their banks, the higher the likelihood that the bank will disregard soft information and credit appraisals on businesses peripherally located (Agarwal and Hauswald, 2006). Lending decisions therefore become inefficient as geographical distance increases and this further leads to an increased in loan defaults (DeYoung et al., 2008b), hence banks will ration credit to small business located further away from their banks (Brevoort and Hannan, 2006). This result is consistent with hypothesis H<sub>14</sub>.

In addition to the above findings, the logit regression models for entrepreneurs who applied for finance and received no external finance and those who received a reduced amount over the three year period were re-run. Regarding entrepreneurs located in conurbations and small towns that applied for finance and received no external finance, the results suggested that entrepreneurs located in a conurbation were less likely to be credit rationed and those located in small towns were more likely to be credit rationed. These results are consistent with hypotheses H<sub>15</sub> and H<sub>16</sub> respectively. Similarly, regarding the dummy variables entrepreneurs located further away from their banks were more likely to be credit rationed (Agarwal and Hauswald, 2006). This result is consistent with hypotheses H<sub>14</sub>. Similar results were observed for entrepreneurs who applied for finance and received a reduced amount.

From the above results the policy recommendations are as follows. Firstly, policy makers must ensure that banks in Ghana do not only concentrate their branch expansion in conurbations and large towns but to encourage banks to

at least have one main branch located in a small town to serve various communities. Secondly, policy makers in the banking industry should ensure that banks adopt modern communication and technological techniques in gathering soft information from entrepreneurs especially those peripherally located. Thirdly, policy makers must also encourage the use of collateral certificates or credit guarantee schemes by small businesses especially those peripherally located and are engaged in the agricultural sector. These policies will ensure that the migration of youths from small towns to conurbations and large towns in search of employment will be minimised. Moreover, since Ghana is an agricultural economy depending on both cash and food crops for export, revenue in this sector will increase and the contributions to GDP and employment will also increase.

The first three empirical chapters have concentrated on the entrepreneur's access to external finance. The last empirical chapter on the other hand, examines the banks lending decisions in the face of uncertainties and the role trust plays in a bank-entrepreneur credit decision.



## Chapter 9

### The Role of Trust in Bank-Entrepreneur Lending Decisions

#### 9.1 Introduction

The first empirical chapter explored the relationship between entrepreneurial experience and the sources of start-up capital. The second and third empirical chapters were concerned with the credit rationing of entrepreneurs and the influence of geographical distance, respectively. As with the first empirical chapter the role of entrepreneurial experience featured prominently in the investigation. This fourth empirical chapter examines the lending decisions of banks on the credit applications of entrepreneurs under conditions of uncertainty influenced by information asymmetry problems. The chapter also evaluates the role of trust in influencing bank lending decisions.

A number of studies have highlighted the importance of bank credit to small business entrepreneurs (Cosh et al., 1996; Cruickshank, 2000; Blackwell and Winter, 2000; Bougheas et al., 2006; Cull et al., 2006; Menkhoff and Suwanaporn, 2007), as well as the challenges entrepreneurs encounter in accessing bank credit (Hannan and Freeman, 1984; Berger and Udell, 1995; Binks and Ennew, 1997; Freedman and Click, 2006; Singh and Belwal, 2008). Between the 1970s and 1980s, the banking sector in Ghana experienced a major financial crisis culminating from a high rate of inflation, a low level of savings, non-performing loans in high-risk sectors and high default rates (Sowa and Acquaye, 1999; Ziorklui, 2001). This phenomenon affected the capital base of most banks leading to large losses, meagre paid-up capital, and lower reserve funds and increasing dependence on loans from both the central bank and

external sources (Nissanke and Aryeetey, 1998). This made credit to small businesses almost non-existent (Brownbridge et al., 1998). In addition to these challenges the State Owned Enterprises (SOEs) were competing with small businesses for bank credit (Aryeetey et al., 1994; World Bank 2004b). During this period banks in Ghana were mainly state owned banks and many of these banks encountered several challenges lending to small business entrepreneurs, regarding them as high risk investments (Tagoe et al., 2005). Most of these banks suffered large losses on bad loans, which affected bank lending to small businesses (Aryeetey et al., 1994).

To address these problems the government introduced a comprehensive Financial Sector Adjustment Programme - FINSAP I (1988-1991) and FINSAP II (1992-1995) with support from the World Bank. The financial sector reforms introduced restructuring of the financial and banking sectors, a review of the legal and regulatory framework and the liberalising of the interest and exchange rates (Nissanke and Aryeetey, 1998; Senbert and Otchere, 2006). The reforms encouraged private banking and by February 2008, the banking sector in Ghana had grown by twenty-four (24) commercial banks with four-hundred and eighty-four (484) branches (Acquah, 2008).

Previous studies have shown that bank lending to small business entrepreneurs encounter several challenges as a result of the problems of information asymmetry (Jensen and Meckling, 1976; Stiglitz and Weiss, 1981; Harris and Raviv, 1991; Binks et al., 1992; Hubbard, 1998; Angelini et al., 1998). Bank lending therefore involves several risks and uncertainties, making lending decisions very critical as banks are unable to determine the quality of the entrepreneur (Berger and Udell, 1995; Binks and Ennew, 1997; Frame et al.,

2001; Bhati, 2006). Banks therefore tend to regard small business lending as high risk ventures and are often reluctant to extend credit to these entrepreneurs (Nissanke and Aryeetey, 1998; UNCTAD, 1999; Tagoe et al., 2005; Abereijo and Fayomi, 2005).

A bank's successful lending activity and profitability is determined by the efficient and effective evaluation of risks and uncertainties characterising the lending process (Farray, 2003). To operate a successful lending activity, banks have adopted certain pragmatic techniques to ensure the management of risks and uncertainties. These include information gathering (Diamond, 1984; Fama, 1985; Berger et al., 2005), requests for collateral to secure credit applications (Bester, 1994; Besanko and Thakor, 1987; Black and De Meza, 1992; Burke and Hanley, 2006; Abor and Biekpe, 2007a), developing a bank-entrepreneur relationship (Cole, 1998; Elsas and Krahn, 1998), and more recently the use of credit scoring techniques to minimise bad investments (Hubbard and Gregg, 2001; Berger and Udell, 2002; Berger and Udell, 2007).

Scholars have argued that the above measures are of assistance in reducing information asymmetry (Binks and Ennew, 1997; Frame et al., 2001; Menkhoff et al., 2006; Brewer, 2007). But these are not perfect and agency problems still remain (Petersen and Rajan, 1994, 1995; Berger and Udell, 1995; Angelini et al., 1998; Harhoff and Körting, 1998). Trustworthy behaviours on the part of entrepreneurs are purported to help in reducing the adverse selection and moral hazard problems (Pettit, 1995; Nooteboom, 2003). This chapter therefore examines the role of trust in bank lending decisions. This chapter is organised as follows. Section two presents the empirical findings and section three concludes the chapter.

## **9.2 Empirical findings**

Under conditions of information asymmetry (Luhmann, 2000), uncertainties (Lewis and Weigent, 1985) and higher risks (Weick, 1993) banks rely on trust to make credit decisions. Higher levels of trust therefore encourage trustworthy behaviour between the entrepreneur and the bank (Pettit, 1995; Nooteboom, 2003). Trust further plays a significant role in reducing transaction costs (Macaulay, 1963); monitoring costs and controls (Lewicki and Bunker, 1996) and the problems of information asymmetry (Ring and Van den Ven, 1992). This section therefore examines the bank lending decisions under conditions of uncertainty and trust vis-à-vis the credit applications of both novice and habitual entrepreneurs.

### **9.2.1 Bank lending process under uncertainty**

The basic principles of banking consisting of safety, adequacy, economy and efficiency are required for the assessment of and the spreading of risks (Sykes, 1928; Pressnell, 1956; Mathias, 1973). Lending to small business entrepreneurs involves risk taking as banks are unable to determine the quality of the entrepreneurs. In the event of a failure by an entrepreneur to meet repayment schedules, the bank loses the investment if there is no collateral to support the application (Bhati, 2006). To reduce these losses, the bank pursues the lending process by gathering objective background information about the business, the entrepreneur and other relevant information to make good decisions and also to minimise risks (Mizruchi and Stearns, 2001). Danos et al. (1989) have noted that financial and background information about the entrepreneur's creditworthiness

impacts greatly on a bank's lending decision. The next section therefore examines the stages of the lending process.

### **9.2.1.1 The lending process**

The first stage of the credit evaluation process consists of information gathering about the entrepreneur. The information gathered which is often hard information, includes past financial statements of the business, the credit history and the business plan (Berry et al., 2004; Berger et al., 2005; Kano et al., 2006). The ability of the entrepreneur to perform is evaluated by analysing the past financial statements in determining the solvency, liquidity and net worth of the entrepreneur (Wilson, 1979). An analysis of the business plan provides the bank with information on the entrepreneur's capacity, competence and benevolence and the future prospects of the business to meet repayment obligations (Danos et al., 1989).

The second stage involves the gathering of soft information about the background of the entrepreneur, information from third parties and referrals from other lending institutions (Danos et al., 1989; Stein, 2002, Cole et al., 2004). Soft information gathering is made through regular interactions with the entrepreneur and visits to the entrepreneur's premises (Newton, 2000; Monge-Naranjo et al., 2001). In addition to regular interactions and visits, banks also use referrals from third parties, in the lending decision process (Blau, 1964).

The third stage of the evaluation process involves the processing, analysis and screening of the information gathered. Collateral is then requested from the entrepreneur as a measure to secure the credit facility (Berry et al., 1993, Newton, 2000; Longhofer and Santos, 2000; Manove et al., 2001). Besides these,

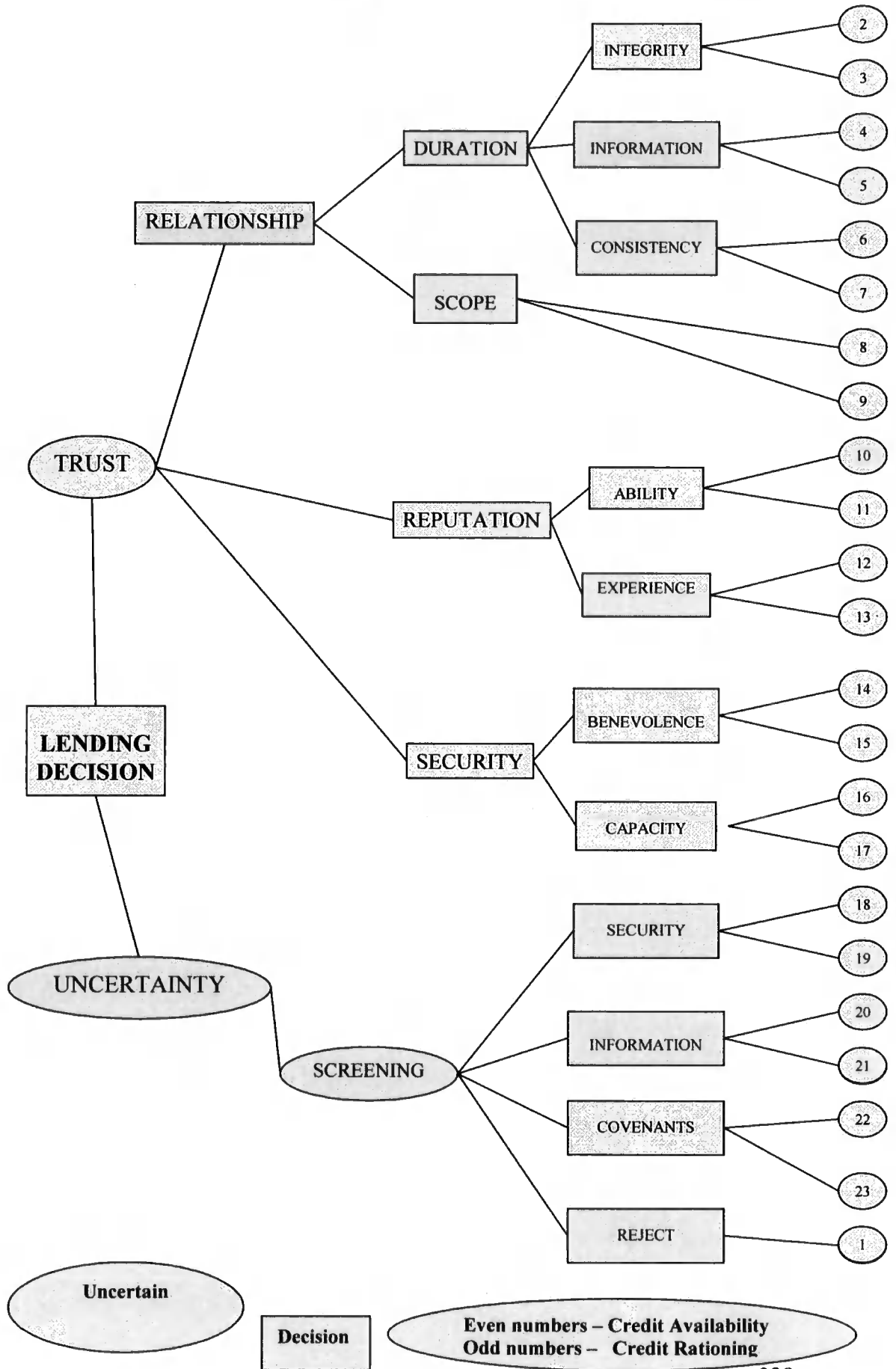
banks also adopt the use of covenants as measures for monitoring and controlling the entrepreneur's cash flow to ensure repayment on schedule (Berger and Udell, 1998), to oblige entrepreneurs to provide regular reports on the investment to the bank (Monge-Naranjo et al., 2001; Paglia, 2002).

The screening processing evaluates the credit worthiness of the entrepreneur and also distinguishes between honest and dishonest entrepreneurs (Diamond, 1984; Wale, 1994). A creditworthy entrepreneur signifies experience, competence, ability, reputation and integrity to perform as well as the capacity to repay the credit facility (Maitland, 1997). An entrepreneur who lacks these qualities cannot be trusted by the bank to perform (Binks et al., 1992b Kitcher, 1993; Ridley, 1995; Shailer, 1999).

As shown in figure 9.1, during the screening process, habitual entrepreneurs by virtue of their experiences and durable relationships are able to provide the requisite information and collateral to support the project's viability and to show their business' capacity. Credit is therefore made available to the habitual entrepreneur as shown in final decision 18, 20 and 22. On the other hand novice entrepreneurs are unable to meet the requisite information and other contract obligations required by the banks creating an information asymmetry between them and the banks. These novice entrepreneurs with higher levels of uncertainty are denied credit outright as shown in final decision 1 for an outright rejection. They are also credit rationed as shown in final decision 19 for lack of collateral, 21 for information asymmetry and 23 for their inability to meet contract covenants. These evidences are consistent with proposition P<sub>1</sub>.

**Figure 9.1**

**DECISION TREE SHOWING THE ROLE OF TRUST IN BANK LENDING DECISIONS**



During the interview, 12 interviewees indicated that novice entrepreneurs were unable to submit past financial statements and business plan thus creating information asymmetry problems. One Credit Manager stated *'even when the entrepreneur submits a business plan, he is unable to explain the rationale for the stated figures'*. Another Credit Manager stated *'most of the figures are unjustifiable high, too optimistic about the business success, and no significant provisions are made for unexpected eventualities (sensitivity analysis)'*.

### **9.2.2 Bank lending under conditions of trust**

In spite of the screening process adopted by the bank and the use of collateral, guarantees and covenants, as an incentive device the banks continue to experience challenges in lending to small businesses (Petersen and Rajan, 1994, 1995; Berger and Udell, 1995; Angelini et al., 1998; Harhoff and Körting, 1998). Under conditions of uncertainty and information asymmetry, banks lending decisions are efficient and effective through the building of social relationships (Podolny, 1994). These social ties and social bonds developed between the entrepreneur and the banks helps in resolving the uncertainties surrounding small business lending as it provides private information and leads to social obligation and reciprocity (Coleman, 1988; Larson, 1992; Ferrary, 2003). Thus the concept of trust evolves from the strength of the relationship, the track record and experience of the entrepreneur as well as the security offered by the entrepreneur to signify benevolence and capacity.



### **9.2.2.1 Durable relationship**

The development of cordial and intimate relationships between the bank and the entrepreneur results in the exchange of vital resources (Burt, 1992). Banks are able to gather relevant information about the entrepreneur and the business through regular interactions with the entrepreneur and frequent visits to the premises of the business (Newton, 2000). Under conditions of information asymmetry, the greater the social ties between the bank and the entrepreneur, the more the availability of information, and the better the assessment on the quality of the entrepreneur (Aldrich and Zimmer, 1986; Gulati and Garguilo, 1999). In addition to providing vital information, social relationships between the bank and the entrepreneur causes a reduction in time and a lowering of the cost of gathering information about the quality of the entrepreneur (Burt, 1992; Coleman, 1988; Nahapiet and Ghoshal, 1998).

The durability of the social relationship also develops a sense of obligation leading to fair and trusting behaviour between the bank and the entrepreneur (Gulati, 1995; Uzzi, 1996). Social obligation encourages reciprocity between parties (Coleman, 1988; Gulati, 1995) and also reduces the degree of risk and uncertainty associated with lending to small business entrepreneurs (Ferrary, 2003). The willingness of the entrepreneur to provide information to the bank signifies the entrepreneur's honesty, integrity and quality (Green, 2003). Again, repeated transactions between entrepreneurs and their banks demonstrate consistency (Williamson, 1981) resulting in the development of trust among the parties.

As shown in figure 9.1, during the screening process habitual entrepreneurs have been found to have established a long-lasting relationship

with their banks. This durable relationship signifies availability of information, portraying the integrity and consistency of the habitual entrepreneur. Besides, the repeated transactions and the use of other bank services by the entrepreneur portray the reliability and the commitment of the habitual entrepreneur. With these characteristics of the habitual entrepreneur, the banks are more likely to make credit available to the habitual entrepreneur as shown by the final decisions: 2 for exhibiting integrity (Green, 2003), 4 for providing adequate information (Ferrary, 2003), and 6 for consistency (Williamson, 1981) and 8 for reliability.

On the other hand novice entrepreneurs by virtue of their inexperience were found not to have established any relationship with the banks. As a result, novice entrepreneurs were found to be facing information asymmetry problems. Banks were therefore unable to determine their quality, integrity, reliability and most of them have hardly used any other banking services. The lack of these qualities will lead to the novice entrepreneur being credit rationed as shown by the final decisions 3 for lack of integrity, 5 for information asymmetry, 7 for inconsistency and 9 for unreliability. The above results indicate that a durable lending relationship between the bank and the entrepreneur generates trust which results in the availability of credit to the entrepreneur. This evidence is consistent with proposition P<sub>2</sub>.

One Credit Manager illustrated the benefit of a durable relationship of experienced entrepreneurs by saying *'I have 7 reliable customers whom I have known for the last twelve years. Any time their credit applications get to my desk, I don't normally delay the process because their repayment ability is so consistent that you can't simply delay approving the credit facility'*. The

interview results in Table 9.5 also showed that many more Credit Managers will go for an habitual entrepreneur who exhibits the characteristics of integrity, ability and consistency in their business transactions with the bank.

Another Credit Manager indicated, her preference and bias towards a habitual entrepreneur who has more dealings with her bank as she argued by saying *'Under conditions of uncertainty, when choosing between customers of the bank for a credit approval, I will be bias towards customers who patronises our products and services, because they provide us with additional income and are more reliable'*.

#### **9.2.2.2 Reputation**

In addition to the social ties and social bonds, banks also consider the track record, experience and ability of the entrepreneur. The reputation of an entrepreneur is one of the major criteria banks use in lending decisions (Granovetter, 1985; Newton, 2000). The entrepreneur's experiences and ability to perform are highly considered in lending decisions (Blois, 1999; Dasgupta, 2000). Habitual entrepreneurs with good reputations are more likely to have access to bank credit (Bates, 1991), as banks regard good reputation as "relationship collateral" (Monge-Naranjo et al., 2001). On the other hand, novice entrepreneurs who by virtue of their inexperience lack any good reputation are credit rationed by banks as their character is uncertain and unpredictable (Kitcher, 1993; Ridley, 1995; Martinelli, 1997).

In figure 9.1, habitual entrepreneurs through their track records and possessing considerable experience exhibit good reputations and have better access to bank credit as shown in final decision 10 for signifying ability and 12 for showing experience (Bates, 1991). In contrast, inexperienced novice

entrepreneurs exhibiting no experience and also lacking the ability to perform are credit rationed as shows in final decision 11 for a lack of ability and 13 for no experience (Ridley, 1995; Martinelli, 1997). This was confirmed during the interview by almost all the Credit Managers as one indicated '*I will never approve a credit facility for a novice entrepreneur whose reputation is uncertain even if that novice entrepreneur has collateral with value thrice the facility*'. Other Credit Managers endorsed this statement because they argued that in the event of a default, the legal procedures involved in disposing of the assets is not only expensive but it is also time consuming as this could take several years. Habitual entrepreneurs with good reputation are less likely to be credit rationed compared with novice entrepreneurs with a bad reputation. This evidence is consistent with proposition P<sub>3</sub>.

### **9.3.2.3 Security**

In lending decisions banks first ensure that the entrepreneur has the experience and the ability to repay the credit facility. Beyond this assurance banks are required to protect the credit facility with an appropriate security in the likely event of a default by the entrepreneur. The security could be in the form of collateral or a credit guarantee or personal guarantee (Chan and Kanatas, 1985). The pledging of collateral by entrepreneurs in a credit application signifies their capacity and willingness to repay the credit facility (Rajan and Winton, 1995; Inderst and Muller, 2007). It also signifies the loyalty, commitment and benevolence of the entrepreneur to ensure positive net returns to the investment and thus eliminating the problem of moral hazard (Bester, 1985; Chan and Thakor, 1987; Boot et al., 1991). In the likely event of a failure, the bank initiates

actions to seize and sell the collateral (Barro, 1976; Aghion and Bolton, 1992; La Porta et al., 1998). Thus the right to seize and sell the collateral ensures the entrepreneur applies the credit as agreed in the contract (Myers, 1977; Hurt, 1995).

Figure 9.1, illustrates the influence of security upon credit availability as it depicts capacity and benevolence of the entrepreneur. Habitual entrepreneurs who pledge collateral are more likely to have access to bank credit as shown in final decisions 14 for benevolence and 16 for capacity (Inderst and Muller, 2007). Novice entrepreneurs lacking the requisite collateral cannot be trusted, and thus they are credit rationed as shown in decisions 15 for lack of goodwill (Boot et al., 1991) and 17 for lacking the capacity to support the application. This evidence is consistent with propositions  $P_2$  and  $P_3$ .

During the interview, almost all of the bank officials - 18 out of 20 insisted that they will not approve an unsecured facility. One Credit Manager indicated '*no collateral no credit, as simple as that*'.

## **9.5 Conclusion**

This chapter has focused on the lending decision of banks in Ghana under conditions of uncertainty resulting from the problems of information asymmetry. The role of trust has also been examined and in particular its influence on bank lending decisions under conditions of uncertainty. Before the last two decades, banks in Ghana were mainly state owned and were specifically geared towards economic development in agriculture, industry, housing, commerce, and general banking services. There were only two foreign banks during this period. As a result of a high rate of inflation, a low level of savings and investments, many of

the state owned banks experienced high bad debts in their books. Again as a result of increased competition from state owned enterprises, credits to small businesses was not only limited but were very expensive.

The study examined the lending process of banks with an in-depth interview of 20 Credit Managers using one-hour face-to-face semi-structured open ended questions. The coded responses were entered into tables and a decision tree was used to illustrate a typical lending process under conditions of uncertainty. The role of trust in influencing the lending decision was also demonstrated. Bank lending decisions are based on an effective evaluation of an entrepreneur's credit applications to determine the entrepreneur's capacity and ability to meet repayment obligations (Reed et al., 1976; Newton, 2000). The effective evaluation is carried out with quality information which is both hard and soft from the entrepreneur and the business. The inability of banks to observe the quality of the entrepreneur was due to the lack of information. This created uncertainty in the lending decision of the banks and they were thus reluctant to lend to small business entrepreneurs as they were considered risky (Nissanke and Aryeetey, 1998). Small businesses in Ghana also lack the requisite collateral to secure the credit facility thus making banks reluctant in lending to small businesses; hence some entrepreneurs are credit rationed.

One of the key elements in a bank-entrepreneur relationship is trust. The findings of this study have shown that bank lending decisions are dependent on the levels of uncertainty and trust associated with the entrepreneur. The results confirm all the three propositions that banks credit ration entrepreneurs whose credit applications experience higher levels of uncertainty resulting from information asymmetry. A durable relationship significantly increases the flow of

information between entrepreneurs and their banks (Burt, 1992). This increases the bank's confidence in the entrepreneur as this improves their relationship (Gulati, 1995) and cooperation (Doz, 1996). This result suggests that a durable relationship increases credit availability and reduces the costs of credit to the entrepreneur (Petersen and Rajan, 1994; Binks and Ennew, 1997). The background training, education and experiences of the entrepreneur are vital in bank credit assessment to determine the entrepreneur's quality (Vernier, 1996). This result suggests that entrepreneurs with good reputations are more likely to have access to bank credit compared with entrepreneurs with a bad reputation (Dei Ottati, 1994).

The findings of this chapter were all consistent with the propositions set up. The results support proposition P<sub>1</sub>, in that, inexperienced entrepreneurs with higher levels of uncertainty were more likely to be credit rationed for reasons of information asymmetry and a lack of collateral. On the other hand, the results of propositions P<sub>2</sub> and P<sub>3</sub> show that experienced entrepreneurs with durable lending relationships; reputations and collateral security were less likely to be credit rationed. The findings also show that social network contracts and social ties are vital for the entrepreneur's access to information and resources towards the acquisition of information and maintenance of resources for business development (Ulhófi, 2005).

The contributions of small businesses to national development in terms of employment generation and gross domestic product have been widely acknowledged (Green, 2003; Wattanapruttipaisan, 2003). The challenges facing small business entrepreneurs in accessing bank credits have also been identified (Wagenvoort, 2003). The results of this chapter provide useful implications for

entrepreneurs seeking to increase their accessibility to bank credit. It is also for both bank managers and policy makers concerned with the task of making more credit available to the small business entrepreneur. Policy makers and practitioners must therefore gear their support towards novice and start-up entrepreneurs to assist them to overcome the problems of information asymmetry and lack of collateral.

In the light of the above, the first policy recommendation from this study is the need for banks to develop a durable relationship with their customers both the experienced entrepreneurs and the inexperienced ones. This will encourage the building of reputations. Second, banks must make every effort to build confidence in the entrepreneur to share information either good or bad. Third, there is a need to assist and encourage the small business entrepreneurs, especially the novice entrepreneurs not only to keep records but also to develop quality, reliable and consistent records. These measures will create norms, networks and trust which will fundamentally reduce risk and uncertainty associated with bank lending decisions on small business ventures (Dowla, 2006).



## **Chapter 10**

### **Summary, Conclusion and Recommendations**

#### **10.1 Introduction**

Small business financing is a topic of significant research interest to academics and an issue of great importance to policy makers around the world including Ghana. The focus of this study was on the differences between experienced entrepreneurs and inexperienced entrepreneurs with respect to the composition of start-up capital and access to bank credit. This study has sought to make a contribution to the theoretical and practical understanding of how experienced entrepreneurs compared to inexperienced entrepreneurs have access to bank credit in Ghana.

A human and social capital perspective was used to explore the variety of ways in which experienced entrepreneurs utilize their education, business ownership experience, skills, competencies, social ties, social bonds, social relationships and networking skills to access external finance. Two sets of methodological approaches - questionnaires and interview techniques were utilised to gather data to investigate entrepreneurial access to external finance. Both quantitative and qualitative evidence highlighted that prior business ownership experience, education, and networking skills of experienced entrepreneurs influenced their access to bank credit compared to inexperienced entrepreneurs.

Economic, as well as social arguments warrant the promotion of small businesses as they contribute substantially to economic growth, the creation of

employment opportunities (Liedholm, 2002; Santos, 2003; Luetkenhorst, 2004), contribution to national output (Steel and Webster, 1991; Cook and Nixson, 2000) an equitable distribution of income and opportunities (Manuh and Brown, 1987; Albaladejo, 2002), the promotion of entrepreneurial skills (Born and Altink, 1996), the advancement of innovation (Boer and During, 2001; Goswami and Mathew, 2005), technological transfer (Rogers, 2004), social cohesion and poverty reduction (Harvie and Lee, 2001; Lerner 2002; Mensah, 1996) and local and regional development (Smallbone and Welter, 2001).

This study aimed at addressing the research questions and also tests the research hypotheses and propositions outlined in the empirical chapters on entrepreneur's access to bank credit over the three year period January 2004 – December 2006. The primary data used in this study comes from a survey of small businesses located in the 6 districts of the Greater Accra Region of Ghana. The survey started with a stratified random sample of 1200 entrepreneurs who have a banking relationship with banks in Ghana, between January 2004 and December 2006. A face-to-face administration of the questionnaires was carried out with a follow-up in-depth interview on selected entrepreneurs and senior bank officials.

Of the 1200 entrepreneurs sampled, 750 entrepreneurs were short listed for the survey. During the five month survey, 522 questionnaires were completed. Of this number 9 responses were eliminated because the businesses had been acquired and have therefore ceased to be independent trading entities. Another 13 responses were eliminated because almost all the responses were unsatisfactorily answered. In total, 500 valid questionnaires were obtained. From this number, 4 responses were

excluded because the respondents reported that they had only inherited an established business and others had filled missing information. The final valid responses were 496 questionnaires and this represented a 66% response rate.

## **10.2 Summary of literature review**

### **10.2.1 Small business financing**

Chapter two formed the first extensive review of the background literature on small business financing for this study. In this chapter, the capital structure of small business, the sources of finance for small business, the factors affecting the availability of and accessibility of bank credit to small business entrepreneurs, as well as the challenges banks encounter in making lending decisions were reviewed. Studies have shown that businesses can raise a particular type of capital depending on the nature and type of business involved (Harris and Raviv, 1991).

Specifically the literature reviewed that small business entrepreneurs finance their businesses principally through the pecking order theory (Myers, 1984, Myers and Majluf, 1984; Shyam-Sunder and Myers, 1999). The entrepreneurs start with internal sources and then introduce external sources at a later time when the needs arises (Acs, 1985; Evans and Jovanovic, 1989; Aryeetey et al., 1994; Findings Africa Region, 1994; Manigart and Struyf, 1997; Hamilton and Fox, 1998; Hernandez-Trillo et al., 2005; Kutsuna and Honjo, 2006; Heino, 2006; Bhaird and Lucey, 2006). The literature review also showed that small business entrepreneurs finance their start-ups through their own savings (Van Auken and Neeley, 1996;

Winborg and Landstrom, 2001), gifts and loans from family and friends (Basu and Parker, 2001; Casson, 2003), supplier's credit and customer advances (Rajan and Zingales, 1993; Fraser, 2001; Burkhart and Ellingsen, 2004), co-investors (Freear et al., 2000; Brettel, 2003), bank loans and bank overdrafts (Brewer et al., 1996), and venture capital (Brander et al., 2002; EVCA, 2004).

In financing small business entrepreneurs the studies have identified the challenges that the banks face including: high transaction costs and the monitoring of credit investments (Steel, 1994; Wagenvoort, 2003), information asymmetry problems (von Eije et al., 2003) and the lack of collateral to enforce repayment (Mambula, 2002; Sacerdoti, 2005). Banks are therefore reluctant in lending to small business entrepreneurs (Binks et al., 1992; Tucker and Lean, 2003; Tagoe et al., 2005). Besides these constraints, financing has been cited as the main obstacle to the growth in small businesses (Sowa et al., 1992; Parker et al., 1995; Wolf, 2004; Tagoe et al., 2005).

The asymmetric flow of information between the entrepreneur and the bank leads to market failure in the provision of finance to small businesses (Levitsky and Prasad, 1987). This market failure creates an excess demand for bank credit over supply resulting in an imperfect market situation. The banks for reasons of the optimal interest rate and profitability will ration credit to their borrowers rather than increase interest rates to resolve the increase in bank credit hence credit rationing occurs among some borrowers (Blinder and Stiglitz, 1983; Wette 1983; Gale and Hellwig, 1984, Voordeckers and Steijvers, 2005).

To resolve the asymmetric information problems, banks may resort to the use of a non-price rationing mechanism (Stiglitz and Weiss, 1981; Binks and Ennew, 1996; Bester 1987; Bester and Hellwing, 1989). Entrepreneurs seeking bank finance may be requested to support their credit applications with a collateral security (Stiglitz and Weiss, 1986; Clemenz, 1986; and Chan and Thakor, 1987). Alternatively, a credible bank-entrepreneur relationship is developed (Boot, 2000; Berger and Udell, 2002; Cardone et al., 2004).

### **10.2.2 Credit rationing**

Chapter three examined the definition of credit rationing, the model and concept of credit rationing and the influence of relationship lending, collateral and geographical distance on credit rationing. Various scholars have provided varying definitions for credit rationing (Baltensperger, 1978; Parker, 2002). This study however provided a unique definition of credit rationing as *a situation where banks grant credit to entrepreneurs they regard as creditworthy borrowers, while other entrepreneurs receive much less than they apply for and still other entrepreneurs are completely rejected even though they are willing to pay higher interest rate.*

In the credit market, equilibrium occurs when the bank-optimal interest rate is reached and the expected return of the loan is highest (Stiglitz and Weiss, 1981). An increase in the bank's interest rate will lead to a decline in the bank's expected returns (Ikhida, 2003). A further increase in the interest rate will worsen the expected returns (Craig et al., 2007). In its attempt to resolve the excess demand over supply, if the bank decides to increase its interest rate, lower risk borrowers will

drop out of the market (Hellmann and Stiglitz, 2000) leaving only the higher risk borrowers (Freixas and Rochet, 1997). The increase in the interest rate will also have an effect on the borrower's choice of investment projects (Basu, 1992; Voordeckers and Steijvers, 2005). An entrepreneur will prefer a higher risk investment project with higher expected returns but with a lower probability of success (Winker, 1999). A number of critics have been raised on the adverse selection and moral hazard model of Stiglitz and Weiss (1981). Among the critics are Diamond (1984); Bester (1985); De Meza and Webb (1987); Williamson (1987); Basu (1992); Cressy (1996) and Parker (2002).

Various empirical studies have provided evidence in support of the importance of lending relationships in terms of credit availability, pricing and collateral requirements (Petersen and Rajan, 1994, 1995; Berger and Udell, 1995; Cole, 1998; Elsas and Krahn, 1998; Harhoff and Körting, 1998a; Howorth et al., 2003). One advantage of relationship lending is that it allows small businesses the opportunity to access credit from their lenders even though they may not have available adequate collateral, a proven track record and impressive financial statements to support their loan applications (Strahan and Weston, 1998; Bodt et al., 2005).

Collateral assures the bank of the entrepreneur's willingness to repay the loan and thus raises the probability that credit will be granted to the entrepreneur (Inderst and Muller, 2007). The pledge of collateral by an entrepreneur in a loan application assists in eliminating the adverse selection and moral hazard effects and

gives a candid opinion about the entrepreneur's creditworthiness (Stiglitz and Weiss, 1981; Bester, 1985; Besanko and Thakor, 1987a; and Chan and Thakor, 1987).

Over the last two decades, several studies have demonstrated an increase in geographical distance between banks and their small businesses (Cyrnak and Hannan, 2003; Peterson and Rajan, 2002; Wolken and Rohde, 2002; Hannan, 2003; Degryse and Ongena, 2005; Brevoort and Hannan, 2006; DeYoung et al., 2007). Distance is an important factor in the lending decision of banks to offer or deny credit. The probability of obtaining credit decreases in the distance between entrepreneurs and bank but increases in that between entrepreneurs and their nearest competitor (Agarwal and Hauswald, 2006). Businesses closer to their bank branch are more likely to obtain loans, whilst businesses located further away from their bank branch are less likely to obtain loans.

### **10.2.3 Entrepreneurship theory**

The fourth chapter reviewed the factors influencing the entrepreneurship theory which affects entrepreneurship actions and activities. These include: the human capital theory, social capital theory and the types of entrepreneurs. The human capital of the entrepreneur is the education, experiences, reputation and skills of the entrepreneur and or employees required in the business to achieve set goals at a given opportunity and time (Boxall and Steeneveld, 1999; Rauch et al., 2005). The human capital resource makes entrepreneurs more efficient in their tasks (Brüderl et al., 1992) which may significantly contribute to the business's performance (Rauch and Frese, 2000). The human capital theory asserts that individuals through the

knowledge they possess are able to increase their cognitive abilities which allows them to be more effective and efficient in their productive activities (Schultz, 1959; Becker, 1964; Mincer, 1974). This assertion presupposes that those individuals with higher levels of education, more work experience and skills are likely to have superior abilities, achieve higher performance and become more successful in their economic ventures than those with a lower or less human capital (Davidsson and Honig, 2003; Dimov and Shepherd, 2005).

Some scholars have proposed that the major differences in entrepreneurial abilities are the results of psychological variables, personal traits and some demographic factors (Low and MacMillan, 1988; Shaver and Scott, 1991). Putnam, (2000) suggested that social capital is the connection between individuals, their social networks, their norms of reciprocity, and the trust arising from the connection. Similarly, Cohen and Prusak, (2001), describe social capital as a set of connections between people, which covers the trust, mutual understanding, and shared values and behaviour that binds the group. The theoretical review identified some benefits of social capital as: a reduction in time and the resources required in search of information (Cohen and Prusak, 2001; Davidsson and Honig, 2003) it facilitates the entrepreneur's access to scarce resources (Boxman et al., 1991; Uzzi, 1999), the benefits from influence, control and power (Shane and Venkataraman, 2000; Adler and Kwon, 2002), and internal and external values such as trust, respect, friendship and network providing entrepreneur confidence (Putnam, 2000). The review also identified three dimensions of social capital which are the structure dimension, cognitive dimension, and the relational dimension.



Generally, entrepreneurship theorists have viewed the entrepreneur as the key element in any analysis (Davidsson and Wiklund, 2001; Shane, 2000). Business ownership experience may lead to an improvement in the growth potential and profit margins of businesses (Starr and Bygrave, 1991; Teece et al., 1997). The experienced entrepreneur therefore gains a competitive advantage over the inexperienced entrepreneur in building reputation, developing expertise, opportunity identification and exploitation (Ardicivili et al., 2003; Ucbasaran et al., 2003a), network development (Hills et al., 1997; Floyd and Wooldridge, 1999), information search and knowledge acquisition (Cooper et al., 1995; Fiet et al., 2000), and accessing external finance (Holtz-Eakin and Rosen, 1999). Habitual entrepreneurs possessing higher levels of education and prior ownership experiences exhibits comparative advantages in terms of information acquisition, opportunity identification and exploitation as well as access to finance compared to the inexperienced novice entrepreneur (Cooper et al., 1995; Shane, 2000).

### **10.3 Summary of empirical findings**

#### **10.3.1 Sources of start-up capital**

Chapter six examined the relative use and importance of the sources of start-up finance for small business and also examined the role of human capital in the access and use of these sources. The results show that 62.0% of entrepreneurs indicated that their most used source of start-up finance was their own savings. Additionally, 51.4% of entrepreneurs reported that their most important source of

start-up capital was own savings. 36.4% of entrepreneurs reported co-investors were their second most used source of finance at start-up, and 32% of entrepreneurs reporting co-investors as their main source of finance. 31.6% of entrepreneurs reported the supplier's credit as a source of finance at start-up, whilst customer advances were used by only 3.0% of entrepreneurs. Gifts from relations and loans from relations were used by 12.8% and 13.4% of entrepreneurs, respectively, at start-up. Bank overdrafts and bank loans were reported by 12.6% and 11.8%, respectively, of entrepreneurs as sources of start-up capital. Only 4.6% of entrepreneurs indicated pensions as a source of start-up capital.

The regression results in Table 6.2 showed that habitual entrepreneurship recorded a negatively signed coefficient regarding loans from relations and this result was statistically significant at the 5% level. The habitual entrepreneurship variable was however, positively statistically significant at the 1% level for bank loans, bank overdrafts, supplies credit and co-investors. The results indicate that habitual entrepreneurs were less likely to depend on loans from relations compared to novice entrepreneurs, but that they are more likely to utilise external sources. These results were consistent with hypotheses  $H_1$  and  $H_2$ .

The possession of a university degree was statistically significant and appeared with negatively signed coefficients for three sources of start up finance: own savings, gifts from relations, and loans from relations. However, in the case of co-investors, the result showed a positively statistically significant coefficient at the 1% level. This result was consistent with hypothesis  $H_3$ .

Process innovation was found to be statistically significant for five sources of start-up capital: own savings which appeared with negative signed coefficients, and bank loan, bank overdrafts, customer advances and co-investors all appearing with positive coefficients. This result was consistent with hypothesis H<sub>4</sub>.

Similarly, the results indicated that exporting entrepreneurs were related to three sources of start-up finance: loans from relations, supplier's credit, and co-investors suggesting less used of internal sources. This result was consistent with hypothesis H<sub>5</sub>.

Besides these, the results also showed that both the manufacturing and service sector businesses were more likely than agricultural businesses to have used external credit (Aryeetey et al., 1994). Again, habitual entrepreneurs located in conurbations were more likely to report a higher use of bank loans compared to entrepreneurs located in small towns. The gender of the entrepreneur was statistically significantly related to four of the sources of capital: own savings, bank loans, co-investors and customer advance. Men were less likely than women to use their own savings as a source of start-up finance, but more likely to use external sources than women. Also, entrepreneurs having a member of the family previously having been in business were more likely than those without to use loans from relatives (Curran and Blackburn, 1993; Bates, 1997; Basu and Parker, 2001).

### **10.3.2 Entrepreneurship and credit rationing**

Chapter seven examined the credit rationing of small business entrepreneurs in relation to their possession of human capital. The chapter conjectured that

entrepreneurs with higher human capital and prior ownership experience are less likely to be credit rationed. To investigate this assessment, the chapter examined the types of entrepreneurs and their access to bank credit and which type of entrepreneur is credit constrained, credit rationed or discouraged from applying for credit. The results in Tables 7.1 a and 7.1b suggested that 28.8%, 35.5% and 20.0% of all entrepreneurs in the last 2-3 years ago, 1-2 years ago and last year, respectively, were credit rationed. Similarly, 4.8%, 15.3% and 19.6% of all entrepreneurs in the last 2-3 years ago, 1-2 years ago and last year, respectively were credit constrained. Regarding discouraged borrowers, the results suggested that 21.2%, 15.1% and 25.4% of all the entrepreneurs were discouraged from applying for credit in the last 2-3 years ago, last 1-2 years ago and the last year, respectively.

The findings revealed that entrepreneurs with prior ownership experience – (habitual, serial and portfolio) entrepreneurs were less likely to be credit rationed compared with inexperienced (novice) entrepreneurs (Ferrary, 2003; Green, 2003). These results were consistent with hypotheses H<sub>6</sub>, H<sub>7</sub> and H<sub>8</sub>. Similarly entrepreneurs with higher levels of education were found to be less likely to be credit rationed. This result was also in support of hypothesis H<sub>9</sub>. The findings also showed that entrepreneurs with prior work experience were less likely to be credit rationed, thus supporting hypothesis H<sub>10</sub>. Also entrepreneurs engaged in process or product innovation were more likely to be credit rationed (Freel, 2000). Entrepreneurs engaged in exporting activities were less likely to be credit rationed. These results are in support of hypotheses H<sub>11</sub>, H<sub>12</sub> and H<sub>13</sub>.

### 10.3.3 Geographical distance and credit rationing

Chapter eight is a continuation of the previous chapter and conjectures that the impact of credit rationing will increase with distance. The results in Tables 8.1 and 8.2 representing the period of last year and last 1-2 years ago suggests that entrepreneurs located further away from their closest competitive banks are more likely to be credit rationed (Petersen and Rajan, 2002; Felsenstein and Fleischer, 2002). However, the results in Table 8.3 representing the period of the last 2-3 years, showed positive and statistically significant coefficients for both distance variables for the preferred banks and closest competitive banks. This result indicates that entrepreneurs located further away from their preferred bank branch were more likely to be credit rationed. The results were consistent with hypotheses H<sub>14</sub>.

The location variables results indicated that entrepreneurs located in conurbations were less likely to be credit rationed compared to entrepreneurs located in small towns who were more likely to be credit rationed. This result is in support of hypothesis H<sub>15</sub>. On the other hand, entrepreneurs located in small towns were more likely to be credit rationed compared to entrepreneurs located in large towns. This result was also consistent with hypothesis H<sub>16</sub>. Several reasons can be assigned for these differences. Entrepreneurs located in conurbations are more likely to possess higher human capital than their counterparts in the small towns (Binks et al., 1992). Access to information and their quality decreases with distance resulting in increased information asymmetry (Hauswald and Marquez, 2006). Banks' transaction costs increases with distance (DeYoung et al., 2008b) and entrepreneurs

located in small towns lack the requisite collateral to support their credit applications (Binks and Ennew, 1997; Tagoe et al., 2005).

#### **10.3.4 The role of trust in bank-entrepreneur lending relationship**

This chapter examined the lending decisions of banks on entrepreneurs credit applications under conditions of uncertainty influenced by information asymmetry problems. One of the key elements in a bank-entrepreneur relationship is trust. The findings of this study have shown that bank lending decisions are dependent on the levels of uncertainty and trust associated with the entrepreneur.

The results indicated that habitual entrepreneurs by virtue of their durable relationship with their banks are able to provide the banks with adequate information required in the loan application process (Burt, 1992). Additionally, habitual entrepreneurs by their background training, education and prior ownership experience are able to provide collateral to support their applications exhibiting signs of good reputation, ability and capacity. This increases cooperation and confidence in the relationship (Gulati, 1995; Doz, 1996). The result therefore suggested that habitual entrepreneurs with prior ownership experience and the ability to provide collateral security are more likely to have access to bank credit compared with inexperienced novice entrepreneurs who may lack prior ownership experience and collateral security.

On the other hand novice entrepreneurs by virtue of their inexperience are unable to provide the requisite information and collateral required to process their credit application and thus, creating an information asymmetry problem. The results

also indicated that inexperienced novice entrepreneurs lack the track record and the ability to perform. As a result, banks are unable to determine their creditworthiness creating higher levels of uncertainty hence credit rationed.

#### **10.4 Theoretical and practical implications of the findings of the study**

This study has sought to make a contribution to both theoretical and practical understanding of the financing of small business entrepreneurs. New sets of empirical data from experienced and inexperienced entrepreneurs from Ghana have been applied to extend the knowledge of entrepreneurship financing using human and social capital concepts to explore the advantages habitual entrepreneurs have over novice entrepreneurs in accessing external finance.

The focus of previous studies on human and social capital on entrepreneurship performance and successes has been limited to entrepreneur's identification and exploitation of opportunities, information search, innovation, networking and business advisory services. Particularly lacking is the use of human and social capital to influence entrepreneurship access to external finance. This study therefore provides novel empirical evidence supporting earlier findings that habitual entrepreneurs with higher levels of human and social capital are more likely to better perform or have access to resources compared to novice entrepreneurs (Rauch and Frese, 2000; Shane and Venkataraman, 2000). The findings of this study have general implications for academics, financial practitioners and policy makers in identifying important areas for policy development regarding the promotion of entrepreneurship and access to external finance.

#### **10.4.1 Theoretical implications**

One of the main contributions of this study is the support for previous studies relating to entrepreneurship performance and successes and the credit rationing literature. The empirical findings of this study have demonstration adequate support for previous research relating to the habitual entrepreneurship concept on human capital, social capital entrepreneurship activity and credit rationing. This study therefore makes significant contributions to the academic literature in that the findings confirm the following:

Firstly, regarding the capital structure of small businesses, the findings of the study showed that small business financing follows the pecking order theory. The pecking order theory has argued that small business entrepreneurs will rely first on internal sources of capital, such as personal savings, retained earnings, loans and gifts from relations before falling on debt financing at a later stages. The results of this study confirms the pecking order theory by showing that inexperienced (novice) entrepreneurs at the beginning of their venture are more likely to depend on internal sources of start-up capital compared with experienced entrepreneurs who are more likely to utilise external sources of finance in addition to the internal sources of start-up capital.

Additionally, in terms of the sources and the utilisation of start-up capital for new ventures, the study findings confirmed previous research that inexperienced entrepreneurs with no prior business ownership experience were more likely to depend on internal sources of start-up capital compared to habitual entrepreneurs with prior ownership experiences (Aryeetey et al., 1994; Wright et al., 1997a;



Henandez-Trillo et al., 2005). Besides, the results of the regression confirmed that small business entrepreneurs in Ghana finance their business by following the pecking order theory (Nissanke, 2001; Westhead et al., 2003a).

Secondly, findings of this study also support the agency theory. The agency theory argues that under conditions of information asymmetry and uncertainty, principals (banks) will adopt measures to ensure that the interest of agents (entrepreneurs) is aligned to those of the principals. The findings of this study confirms the information asymmetry problems small businesses encounter when accessing bank credit. The findings also confirm how banks use collateral requirements to resolve the adverse selection and moral hazard issued raised in the agency theory argument.

Additionally, the study extends previous research knowledge by confirming earlier research findings that most small business entrepreneurs encountered difficulties accessing formal credit because of the problems of information asymmetry, a lack of a proven track record and also a lack the collateral to support their credit applications (Acs, 1985; Hernandez-Trillo et al., 2005; Kutsuna and Honjo, 2006; Bhaird and Lucey, 2006).

Thirdly, this study has confirmed the findings in previous studies in relation to the suggestion that the success of a business is positively related to the entrepreneur's level of education, training, and prior business ownership experience (Kilkenny et al., 1999; Ucbasaran et al., 2003b). The findings of this study also supports the propositions that habitual entrepreneurs with higher education, more work experience and skills are likely to have superior abilities, achieve higher

performance, develop good reputations and become more successful in accessing external finance than novice entrepreneurs with a lower or less human capital (Rauch and Frese, 2000; Davidsson and Honig, 2003; Dimov and Shepherd, 2005).

Fourthly, the impact of geographical distance and credit rationing is more likely to affect the inexperienced small business entrepreneur compared with the experienced entrepreneurs. Most of the empirical literature revealed that the geographical distance between banks and their entrepreneurs have been increasing over the years in the developed nations as a result of an improvement in technological advancement and deregulations and reductions in back branches (Peterson and Rajan, 2002; Degryse and Ongena, 2005; Wolken and Rohde, 2002; Hannan, 2003; Brevoort and Hannan, 2006; DeYoung et al., 2008a).

However, the findings of this study have shown that the banks in Ghana are rather increasing their branch networks in both conurbations and large towns. Additionally, banks in Ghana have centralised their banking processing and decision making leading to an increase in both geographical and functional distances between the banks and small businesses located in small towns (Binks et al., 1992; Mason and Harrison, 1993; Felsenstein and Fleischer 2002). This has resulted in an increase in information asymmetry and hence credit rationing (Mason and Harrison, 1993; Degryse and Ongena, 2005; Agarwal and Hauswald, 2006).

Fifthly, the study demonstrated that social capital through relational trust played a key role in the lender-borrower relationship (Saparito et al., 2004). Through durable relationships, banks and entrepreneurs are able to build trust over a period of time for mutual benefit (Dunkelberg et al., 1984). The findings further revealed that

trust building is achieved through regular interactions and visits between the entrepreneur and the bank, regular exchanges of information, types of products and services the bank offers to the entrepreneur and the provision of collateral security to support credit applications (Binks and Ennew, 1997; Berlin and Mester, 1998; Yli-Renko et al., 2001; Dowla, 2006). These relationships signify confidence, goodwill and cooperation which build good reputations and trust making access to finance much easier (Ring and Van de Ven, 1994; Das and Teng, 1998).

Sixthly, the overall findings of the study also confirm earlier findings on credit rationing of small businesses. The findings of this study show that small business entrepreneurs with no track records and lacking business experience (Aryeetey et al., 1994; Baydas et al., 1994; Levenson and Williard, 2000; Okurut et al., 2005; Voordeckers and Steijvers; 2005; Tagoe et al., 2005; Blumberg and Letterie, 2008), and lacking collateral to support their credit application (Manove et al., 2001) and lacking good reputations (Dasgupta, 2000) are perceived as high risks borrowers (Schiffer and Weder, 2001; Lieholm, 2002) and are more likely to be credit rationed. The study further confirms earlier studies that small business entrepreneurs who are peripherally located (Felsenstein and Fleischer, 2002; Brevoort and Hannan, 2006) are more likely to be credit rationed compared with habitual entrepreneurs because of a higher probability of default (Binks et al., 1992; DeYoung et al., 2008b).

#### **10.4.2 Practical implications**

Previous studies have acknowledged the contributions of small businesses to national development in terms of employment generation and gross domestic product (Green, 2003; Wattanapruttipaisan, 2003). Equally acknowledged are the numerous challenges confronting the small businesses especially access to finance (Wagenvoort, 2003). Earlier studies have identified the presence of credit rationing amongst inexperienced small businesses and its effect on national development (Binks et al., 1992; Zeller, 1994; Tucker and Lean, 2003; Abor and Biekpe, 2007b; Blumberg and Letterie, 2008). The findings of this study provided supporting evidence to the earlier findings that inexperienced small business entrepreneurs are more likely to be credit rationed.

The presented evidence from this study supports the view that habitual entrepreneurs with higher levels of human capital were more likely to report a higher use of external sources of start-up capital compared to novice entrepreneurs (Kutsuna and Honjo, 2006; Heino, 2006; Bhaird and Lucey, 2006). Secondly, habitual entrepreneurs with higher levels of human capital, prior ownership experience and social networking ties are less likely to be credit rationed compared with inexperienced novice entrepreneurs (Westhead et al., 2005).

Thirdly, the findings of this study show that entrepreneurs located further away from their preferred bank branch and also their closest competitive bank branch are more likely to be credit rationed (Petersen and Rajan, 2002; Agarwal and Hauswald, 2006; Alessandrini et al., 2006). Increased distance increases information asymmetry between banks and the entrepreneur leading to an increase in loan

defaults (DeYoung et al., 2008b) and bank credit rationing (Brevoort and Hannan, 2006).

Fourthly, the findings suggest that durable relationship increases credit availability and reduces the costs of credit to the entrepreneur (Petersen and Rajan, 1994; Binks and Ennew, 1997). The results also suggest that entrepreneurs with a good reputation are more likely to have access to bank credit compared with entrepreneurs with a bad reputation (Dei Ottati, 1994).

The study has highlighted some of the challenges small business entrepreneurs encounter in accessing external finance. Most notably, novice entrepreneurs and small business start-up entrepreneurs encounter more challenges and are more likely to be credit rationed. The evidence presented raised issues on sources of start-up capital, access to bank credit, the influence of geographical distance to credit accessibility and the influence of trust and reputation in credit accessibility. Policy makers and practitioners must therefore adopt pragmatic steps and programmes in addressing these challenges. However, in so doing, policy makers and practitioners must tailor their policies to address specific challenges facing small business novice and start-up entrepreneurs and habitual entrepreneurs.

The presented evidence also suggests that habitual entrepreneurs were more likely to be associated with higher levels of education, prior ownership education, durable banking relationships, and well structured networking ties compared with inexperienced novice entrepreneurs. Additionally, the findings revealed that habitual entrepreneurs were more likely to provide collateral security, track records and good reputations to signify capacity, ability and integrity towards future performance and

repayment. Hence, habitual entrepreneurs were less likely to be credit rationed. On the other hand, the presented evidence suggests that novice and start-up entrepreneurs were not only inexperienced, but also that they lack the track record, lack collateral security and lack reputations. The evidence suggested they were more likely to be credit rationed.

Policy makers and practitioners seeking to increase employment generation, increase individual income and the standard of living as well as promote economic growth and development must take a critical look at their policies towards novice and start-up entrepreneurs. Policies must be geared towards addressing the availability and accessibility of external credit for novice entrepreneur and start-up businesses. The re-engineering of existing policies towards the development of entrepreneurship in general must be made to accommodate the challenges specifically faced by novice and start-up entrepreneurs. Practitioners in the financial institutions must adopt measures aimed at improving information gathering, developing durable relationships, and encouraging trustworthy behaviour.

Policy makers and practitioners also need to address issues associated with small business lending including information asymmetry, networking and collateral security. This study has therefore tailored down some policy recommendations in the next section for consideration by policy makers and practitioners to address entrepreneurial access to external finance by minimising information asymmetry and improving credit accessibility and thus reducing credit rationing.

## **10.5 Recommendations for commercial bank managers (practitioners) and policy makers for the improvement of small business entrepreneur financing.**

### **10.5.1 Reducing information asymmetry**

A number of studies have shown how small businesses have encountered difficulties in accessing bank credit as a result of the problems of information asymmetry (von Eije et al., 2003; Cowling and Mitchell, 2003). The findings of this study have confirmed the information asymmetry problems as most small business entrepreneurs are unable to provide their banks with the requisite information. This is due to the fact that they are unable to keep records, have unreliable financial statements and also lack collateral. In order for the problem of information asymmetry to be addressed, the following steps are recommended:

- Simplify business registration procedures, encourage regular updating of information and changes to business ownership and structures. The filling of relevant information and mandatory returns regarding taxes and other regulations must be strictly enforced and adhered to;
- Improve the reliability of financial information provided by small businesses by adopting user-friendly accounting systems and reporting requirements consistent with international best practice and enforce such requirements.

The user-friendly financial information should be accessible by the varying types of entrepreneurs – novice, serial and portfolio;

- Strengthen the ability of business development service providers to make small businesses more creditworthy through special support measures such as training on book-keeping, costing, marketing skills, developing innovative skills, financial management and entrepreneurship and improving human and social capital resources to ensure reliability of financial and business information;
- Accelerate the pace of reform of the legal and financial framework necessary for an enabling business environment; this includes more rapid dispute settlement and effective bankruptcy and insolvency procedures.
- Financial institutions must proactively watch out for early warning signs of future loan repayment problems and initiate vigorous collection efforts to avoid default. This can be achieved by utilising both hard and soft information in their lending decisions.

### **10.5.2 Relationship lending**

In view of the numerous benefits outlined in the findings regarding durable relationship lending, the following is recommended to commercial bank managers and policy makers to enhance small business entrepreneur financing:



- Foster the development of a durable and comprehensive bank-entrepreneur relationship that extends beyond credit accessibility. This can be achieved by educating and encouraging small business entrepreneurs to practice regular banking and relationship building with their banks at all times and not only when they are in need of additional financing;
- In building a durable relationship between entrepreneurs and financial institutions, policy makers and practitioners must encourage the formation of associations within sectors and communities to ensure uniformity in problem identification and structuring of solutions;
- The formation of these associations will encourage the development of norms, values and business cultures, which will address issues of mistrust and behavioural uncertainties. These associations will serve as third party referrals to the lending institutions where they may provide sensitive information regarding the quality of individual entrepreneurs. The effect here will be for individual entrepreneurs to aspire to build good reputations in their business dealings;
- Policies must also be geared towards encouraging and persuading business associations and individual small business entrepreneurs to register and formalise their relationship with service providers such as business advisory services, legal, accounting and auditing services and other regulatory agencies related to their form of business. This will develop a culture of

transparency and accountability in dealing with financial institutions and the reliability of financial information provided;

- Secondly, this relationship if well developed can help reduce the information asymmetry problems existing between banks and their entrepreneurs as the above relationship will assist in providing reliable information about an entrepreneur's quality.

### **10.5.3 Collateral security**

Nagarajan and Meyer, (1998) described a collateral as any physical asset whose appropriability leads to ease of liquidation in situations of default, absence collateral-specific risks and the accrual of the returns to the borrower. The evidence presented in this study suggests that most novice entrepreneurs and start-up entrepreneurs do not possess the physical structure of buildings and other machinery and equipment to be used as collateral. In addition to this challenge, the deficiencies of the legal institutions prohibit the usefulness of collateral when an entrepreneur defaults. In situations of defaults, enforcing the collateral is not only costly but also involves lengthy proceedings (Daumont et al., 2004). As a result of these difficulties, banks in Africa are reluctant in proceeding to the law courts despite the high levels of default (Fafchamps, 1996; Bigsten et al., 2000). To avoid these high levels of default, banks prefer rationing credit to these small business entrepreneurs (Nissake, 2001, Tagoe et al., 2005; Abor and Biekpe, 2007b).

In view of these difficulties, most economies, both developed and developing have introduced credit guarantee schemes to promote the growth and contributions

of small businesses. These credit guarantee schemes are designed to help address several barriers to credit accessibility by small businesses by altering the perceived high risk associated with small business lending. It is also assumed that the credit guarantee scheme will reduce the default risk associated with small business lending and make credit accessibility by small business entrepreneurs more feasible. The use of the credit guarantee scheme helps minimise adverse selection and moral hazard problems. Additionally, the schemes also help reduce the costs of transaction lending, lower terms of the facility and transform the entrepreneur's quality. Some of the credit guarantee schemes currently in use include: publicly operated national schemes, mutual guarantee schemes, corporate guarantee schemes and multinational cooperation guarantee schemes.

The failures of most credit guarantee scheme to perform had led to some critics questioning the justification and effectiveness of the schemes in relation to the existence of market imperfections (Volgel and Adams, 1997). Others have also questioned the interventions of governments and the use of public funds to support these schemes (Parker, 2002). Admittedly, most credit guarantee schemes in developing countries have suffered many challenges ranging from inadequate procedures, moral hazards, delays in paying claims and a lack of adequate funding to increase capitalisation in order to support larger investments and also to cover wider sectors.

In order to address these difficulties, this study has outlined some measures to help improve the procedures, reduce moral hazard, and provide adequate and regular funding to increase capitalisation. The study therefore recommends the use

of a guarantee certificate to be purchased by entrepreneurs and used as collateral in place of the traditional collateral securities such as buildings, lands, vehicles, machinery and equipments.

The objective of this collateral guarantee scheme is to help the new and existing small business entrepreneur to access external credit from the formal financial institutions without the hassles of producing the traditional collateral security. The backbone of this guarantee scheme is the setting up of a Collateral Guarantee Fund Trust by the government and other interested institutions. The scheme will assist in providing availability of collateral-free credit to small business entrepreneurs by mitigating 70% of the credit risk of the eligible lenders based on the viability of the projects. The agreed guarantee fee should range between 2.5% and 3.5% and also an annual service fee of 1.5% of the outstanding credit.

From the above discussions the recommendations for practitioners and policy makers include the following:

- The first recommendation is for policy makers to set up a collateral guarantee certificate in place of the traditional collateral securities such as buildings, lands, vehicles, machinery and equipments. This certificate when purchased by the entrepreneur will serve as a collateral guarantee for the financial institution lending credit to the entrepreneur.
- There must be a tripartite risk sharing agreement in the collateral guarantee certificate scheme. The guarantee company will guarantee the investment

with an upper limit of 70%. The lending institution must also take up a minimum of 10% and the small business entrepreneur taking a minimum of 20%.

- To qualify for the certificate, the small business entrepreneur must fulfil all the information submission requirements. Failure to meet these requirements implies no guarantee certificate is offered.
- Policy makers and practitioners must ensure that the guarantee scheme employs qualified, competent and adequate professionals to provide effective and efficient services including processing of applications, risk analysis, monitoring and evaluation and efficient debt recovery and the handling of claims.
- Early warning signals must be adhere to effectively and immediate remedial actions taken to address the challenge.
- In order to ensure regular and adequate funding of the scheme, government must gradually off load all the shares of the guarantee company on to the stock market for recapitalisation. Government must also avoid interference in the day to day management of the scheme and rather allow for professional management and the independence of the scheme.
- Government should rather offer the financial institutions counter-guarantees as in re-insurance to boost the confidence in the scheme and the assurance of

repayment in situations of economic recession, natural disasters and unforeseen circumstances.

- All financial institutions interested in the scheme must be made to hold shares in the guarantee scheme. Financial institutions holding shares in the scheme will be entitled to a guaranteed scheme of 100 times their share value. This means banks will be required to hold a minimum of 10% of the total of all guaranteed credits made to small business entrepreneurs. Additionally, no individual financial institution will be allowed to offer an individual entrepreneur more than the value of its shareholdings in the guarantee scheme.
- Individual entrepreneurs and small businesses must be encouraged to own shares in the scheme. High quality entrepreneurs with shares in the scheme must be offered a higher percentage guarantee cover as an incentive for others to desire to hold shares.

The above measures would ensure an effective and efficient guarantee scheme to support credit lending to small business entrepreneurs as the above recommendation aims at reducing information asymmetry, minimise adverse selection and moral hazard and perceived risk associated with small business lending. It is also aimed at improving bank-entrepreneur relationships, building trust and reputations, increasing external credit availability and accessibility and reducing credit rationing of small business entrepreneurs.

## **10.6 Limitations of the study and implications for future studies**

As with other research studies, this study is associated with several limitations and thus offering future research opportunities. The primary data used in this study was gathered through responses from small business entrepreneurs through questionnaire administration and in-depth interviews. Doubt may be cast on the wider validity of the selected dependent and independent variables. However, other studies have argued that individual respondents can provide reliable information about their businesses (De Tienne and Koberg, 2002; Ozgen and Baron, 2007).

The study used data gathered from one region out of ten regions in Ghana to generalise the results relating to small business entrepreneurs and bank credit rationing. This study however can be accepted as a true representation of the situation of credit rationing of small business entrepreneurs in Ghana as the rest of the regions have similar characteristics as the region used (Acquah, 2007).

In order for policy makers and practitioners to develop more appropriate and beneficial policies towards novice and start-up entrepreneurs, further research must be conducted in relation to novice and start-up entrepreneurs.

Future studies should consider expanding the survey in the following areas. Firstly, a new survey should expand the size of the small businesses by redefining the business size from 4-50 employees to about 4-250 employees. Secondly, a further study should consider breaking further down the three sector variable of agriculture, manufacturing and services into sub-sector groups. An example will be for the agricultural sector into farming (cash and food crops), fishing, poultry and

animal rearing. Thirdly, a further study should consider gathering primary data covering the entire country rather than one region. This will enhance a further assessment of the geographical credit rationing variable.

Fourthly, to ensure a wider spread of economic development in various sectors and remote locations further away from conurbation and large towns, further research must be conducted to explore how banks can use a collateral guarantee certificate scheme to lead to an improved relationship lending programme that will lead to an increase credit to peripherally located small business entrepreneur.

Fifthly, variables relating to trust characteristics in the bank-entrepreneur relationship could be gathered in future studies from the side of the entrepreneurs in order to provide additional evidence on trust characteristics and their role in bank lending decisions. Additional research also needs to be carried out to ascertain how banks can develop and use trust behaviour to encourage good reputation building and increased access to external credit in the absence of physical collateral.



## References

- Abereijo, I. O. and A. O. Fayomi, (2005). Innovative Approach to SME Financing in Nigeria. A review of Small and Medium Industries Equity Investment Scheme (SMIEIS). *Journal of Social Science*, Vol. 11, No. 3, pp. 219-227.
- Abor, J., (2005). The Relevance of Informal Finance in the Ghanaian Non-Traditional Export Sector. Paper Presented at the Sixth International Academy of African Business and Development Conference Proceedings, University of Dar es Salaam, Tanzania, April, pp. 310-317.
- Abor, J., (2006). Female-owned Businesses and Access to Finance: Evidence from Ghanaian Non-traditional Export Sector. *Gender and Behaviour*, Vol. 4, No. 1. 508-521.
- Abor, J. and N. Biekpe, (2007a). Corporate Governance, Ownership Structure and Performance of SMEs in Ghana: Implications for Financing Opportunities. *Corporate Governance*, Vol. 7, No. 3, pp. 288-300.
- Abor, J. and N. Biekpe, (2007b). Small Business Reliance on Bank Financing in Ghana. *Emerging Market Finance and Trade*, Vol. 43, No. 4, pp. 93-102.
- Abor, J. and N. Biekpe, (2006a). Corporate Debt Policy of Small and Medium Enterprises in Ghana. University of Stellenbosch Business School, South Africa, Working Paper, pp. 1-17.
- Abor, J. and N. Biekpe, (2006b). How are SME's Financed? Evidence from the Ghanaian Non-Traditional Export Sector. *Environment and Planning C: Government and Policy*, Vol. 24, pp. 71-81.
- Acquah, M., (2007). Managerial Social Capital, Strategic Orientation and Organisational Performance in an Emerging Economy. *Strategic Management Journal*, Vol. 28, pp. 1235-1255.
- Acquah, P. A., (2008). Bank of Ghana, Accra, Ghana. Speech Delivered by the Governor of Bank of Ghana at the Official Opening of Bank of Baroda International in Accra, Ghana on February 11, 2008, pp. 1-5.

- Acs, Z. J., (1985). A Case Study of the Financing of Mini Mills in the U. S. Steel Industry. *Policy Studies Journal*, Vol. 13, Issue 4, pp. 747-755.
- Acs, Z. J. and D. B. Audretsch, (1990). *Innovation and Small Firms*. Cambridge: The MIT Press Third Edition, ISBN-10: 0262011131, ISBN-13: 9780262011136, pp. 1-207.
- Adams, D., (1992). Taking a Fresh Look at Informal Finance in Dale Adams and D. Fitchett (eds), *Informal Finance in Low-Income Countries*, Boulder, CO: Westview Press, pp. 5-23.
- Adler, P. and S. Kwon, (2002). Social Capital: Prospects for a New Concept. *Academy of Management Review*, Vol. 27, No. 1, pp. 17-40.
- Aernoudt, R., (2005). Business Angels: The Smartest Money for Starters? Plea for a Renewed Policy Focus on Business Angels. *International Journal of Business*, Vol. 10, No. 3, pp. 271-284.
- Aernoudt, R., (1999). European Policy Towards Venture Capital: Myth or Reality? *Venture Capital: An International Journal of Entrepreneurial Finance*, Vol. 1, pp. 47-59.
- Africa Economic Outlook. (2006). The Economy of Ghana. AfDB/OECD pp. 283-293.
- Agarwal, S. and R. Hauswald, (2006). Distance and Information Asymmetries in Lending Decisions. Washington DC, American University. Paper Presented at the Conference on Financial Modernisation and Economic Growth in Europe, Berlin, 28-29 September, 2006, pp. 1-37.
- Aghion, P. and P. Bolton, (1992). An Incomplete Contracts Approach to Financial Contracting. *Review of Economic Studies*, Vol. 59, pp. 473.
- Aintabian, S., P. A. McGraw, and G. S. Roberts, (2007). Bank Monitoring and Environmental Risk. *Journal of Business Finance and Accounting*, Vol. 34, No. 1 and 2, pp. 389-401.
- Aivazian, V., X. Gu, and J. Qiu, (2004). Loan Rates and the Two Faces of Collateral. University of Toronto, Canada, Working Paper, pp. 1-48.

- Akerlof, G., (1970). The Market for Lemons: Quality Uncertainty and the Market Mechanisms. *Quarterly Journal of Economics*, Vol. 84, pp. 488-500.
- Alando, L., (1991). Financing Small-scale Export Business in Ghana. School of Administration, University of Ghana, Legon, pp. 31-41.
- Albaladejo, M., (2002). Promoting SMEs in Africa: Key Areas for Policy Intervention, Background Report for AfDB's New Policy Guidelines to Promote Small and Medium Scale Enterprises, Abidjan, Cote D'Ivoire. United Nation Industrial Development Organisation, Private Sector Development Branch, Working paper, pp. 1-140.
- Albaum, G., J. Strandkov, and E. Duerr, (1998). International Marketing and Export Management, (3<sup>rd</sup> ed.), Addison-Wesley Publishing Company, Harlow, pp. 397-423.
- Aldrich, H. and C. Zimmer, (1986). Entrepreneurship through Social Networks. D. Sexton, R. Smilor, (Eds). *The Art and Science of Entrepreneurship*. Ballinger, Cambridge, MA: Ballinger, pp. 3-23.
- Aldrich, H., (1999). Organisations Evolving. Sage Publications. ISBN: 0803989180, pp. 1-407.
- Aldrich, H., L.Renzulli, and N. Langton, (1998). Passing on Privilege: Resources Provided by Self-Employed Parents to their Self-Employed Children. *Research in Social Stratification and Mobility*, Vol. 16, pp. 291-317.
- Aleem, I., (1990). Imperfect Information, Screening, and the Costs of Informal Lending: A Study of a Rural Credit Market in Pakistan. *World Bank Economic Review*, Vol. 4, No. 3, pp. 329-349.
- Alessandrini, P., A. F. Presbitero, and A. Zazzaro, (2006). Banks, Distance and Financing Constraints for Firms. Universita Politecnica Delle Marche, Quaderno Di ricerca No. 266. Universita Politecnica Delle Marche, Dipartimento di Economia, Working Paper, WP 266, pp. 1-27.
- Aliaga, M. and B. Gunderson, (2002). Interactive Statistics (2<sup>nd</sup> Edition). Prentice Hall Publications, 2002. ISBN-10: 013065597X, ISBN-13: 9780130655974, pp. 1-985.

- Almazan, A., (2002). A Model of Competition in Banking: Bank Capital versus Expertise. *Journal of Financial Intermediation*, Vol. 11, pp. 87-121.
- Alsos, G. A. and L. Kolvereid, (1998). The Business Gestation Process of Novice, Serial and Parallel Business Founders. *Entrepreneurship, Theory and Practice*, Vol. 22, pp. 101-114.
- Alvarez, S. A. and J. Barney, (2004). Organising Rent Generation and Appropriation: Toward a Theory of the Entrepreneurial Firm. *Journal of Business Venturing*, Vol. 19, Issue 5, pp.621-635.
- Alvarez, S. A. and L. Busenitz, (2001). The Entrepreneurship of Resource-Based Theory. *Journal of Management*, Vol. 6, pp. 755-775.
- Alvarez, S. A., (2005). Two Theories of Entrepreneurship: Alternative Assumptions and the Study of Entrepreneurial Action. *Foundations and Trends in Entrepreneurship*, Vol. 1, Issue 3, pp. 105-148.
- Amabile, T.M., (1988). A Model of Creativity and Innovation in Organisations. In B. Staw and L. L. Cumming (editions). Greenwich CT: JAI Press. *Research in Organisational Behaviour*, Vol. 10, pp. 123-167.
- Amano, M., (1999). Credit Rationing of a Bayesian Bank with Simple Screening Technologies. *Japan and the World Economy*, Vol. 11, pp. 545-556.
- Amel, D. F. and K.P. Brevoort, (2005). The Perceived Size of Small Business Banking Market. *Journal of Competition Law and Economics*, Vol. 1 No. 4, pp. 771-784.
- Amit, R., L. Glosten, and E. Muller, (1990). Entrepreneurial Ability, Venture Investments, and Risk Sharing. *Management Science*, Vol. 38, No. 10, pp. 1232-1245.
- Amonoo, E., P. K. Acquah, and E. E. Asmah, (2003). The Impact of Financial Sector Liberalisation on the Poor International Labour Organisation, IFLIP Research paper, pp. 3-10.

- Anderson, M. B., (1985). Technology Transfer: Implications for Women. In Gender Roles in Development Projects. Kumarian press, West Hartford, CT, USA, pp. 18-21.
- Anderson, A. and C. Miller, (2003). Class Matter: Human and Social Capital in the Entrepreneurial Process. *The journal of Socio-Economics*, Vol. 32, pp. 17-36.
- Angelini, P., R. Di. Salvo, G. Ferri, (1998). Availability of Cost of Credit for Small Businesses: Customer Relationships and Credit Cooperatives. *Journal of Banking and Finance*, Vol. 22, No. 6, pp. 925-954.
- Aram, J. D., (1989). Attitudes and Behaviours of Informal Investors Toward Early-Stage Investments, Technology-Based Ventures and Co-investors. *Journal of Business Venturing*, Vol. 4, Issue 5, pp. 333-347.
- Ardichvili, A., R. Cardozo, and S. Ray, (2003). A Theory of Entrepreneurial Opportunity Identification and Development. *Journal of Business Venturing*, Vol. 18, No.1, pp. 105-123.
- Arrow, K. J., (1963). Uncertainty and the Welfare Economics of Medical Care. *The American Economic Review*, Vol. 53, pp. 941-973.
- Arrow, K. J., (1971). Political and Economic Evaluation of Social Effects and Externalities. *Frontiers of Qualitative Economics*, Amsterdam, North Holland. In Intrilligator, M. (ed.). pp. 3-25.
- Aryeetey, E., (2001). Priority Research Issues Relating to Regulation and Competition in Ghana. Centre on Regulation and Competition, Institute for Development Policy and Management, University of Manchester, Working Paper Series, ISBN- 10: 904056083, pp. 1-23.
- Aryeetey, E., (1998). Informal Finance for Private Sector Development in Africa. A Background Paper Prepared for the African Development Report, 1998, pp. 1-31.
- Aryeetey, E., (1997). Rural Finance in Africa: Institutional Development and Access for the Poor. The World Bank Annual Conference on Development Economics, 25-26 April, Washington D. C, pp. 149.

- Aryeetey, E., H. Hettige, M. Nissanke, and W. Steel, (1997). Financial Market, Fragmentation and Reforms in Sub-saharan Africa, Washington, D. C. Africa Region Series, The World Bank, Technical Paper No. 356, pp. 1-68.
- Aryeetey, E., A. Baah-Nuakoh, T. Duggleby, H. Hettige, and W. F. Steel, (1994). Supply and Demand for Finance of Small Enterprises in Ghana. World Bank Africa Technical Department Series, Washington, D. C. Discussion Papers, No. 251, pp. 1-130.
- Asian Development Bank (ADB), (2003). Peoples Republic of China: The development of private enterprise, Manila. Asian Development Bank Publications No. 030403, pp. 1-193.
- Astbro, T. and I. Bernhardt, (2005). The Winner's Curse of Human Capital. *Small Business Economics*, Vol. 24, No. 1, pp. 63-78.
- Atieno, R., (2001). Formal and Informal Institutions' Lending Policies and Access to Credit by Small-Scale Enterprises in Kenya: An Empirical Assessment. AERC Research Paper 111 African Economic Research Consortiums, Nairobi, pp. 1-53.
- Auciello, K. E., (1975). Employment Generation through Stimulation of Small Industries, an International Compilation of Small-Scale Industry Definitions, Atlanta, Georgia Institute of Technology.
- Audretsch, D. B. and J. A. Elston, (2002). Does Firm Size Matter? Evidence on the Impact of Liquidity Constraints on Firm Investment Behaviour in Germany. *International Journal of Industrial Organisation*, Vol. 20, Issue 1, pp. 1-17.
- Avery, R. B., R. W. Bostic, and K. A. Samolyk, (1998). The Role of Personal Wealth in Small in Small Business Finance, *Journal of Banking and Finance*, Vol. 22, pp. 1019-1061.
- Avery, R. B. and K. Samolyk, (2000). Bank Consolidation and the Provision of Banking Services. The Case of Small Commercial Loans, Mimeo, Federal Reserve Board and FDIC, pp. 1-41.

- Ayyagari, M., T. Beck, and A. Demirguc-Kunt, (2003). Small and Medium Enterprise across the Globe: Anew Database. World Bank Policy Research, Working Paper, 3127, pp. 1-40.
- Azam, J. P., B. Biais, M. Dia, and C. Maurel, (2001). Informal and Formal Credit Market and Credit Rationing in Cote D'Ivoire. *Oxford Review of Economic Policy*, Vol. 17, No. 4, pp. 520-534.
- Baah-Nuakoh, A., C. D. Jebuni, A. D. Oduro, and Y. Asante, (1996). Exporting Manufactures from Ghana- Is adjustment Enough? Overseas Development Institute/University of Ghana, Legon, Chameleon Press Limited, London. ISBN - 13: 978085003241-3, pp. 1-118.
- Baden, S., (1996). Gender Issues in Financial Liberalisation and Financial Sector, Topic Paper Prepared for EU, DG VIII and OECD, DAC, Sussex: BRIDGE. Report No. 39, pp. 1-70.
- Baker, W., (1990). Market Networks and Corporate Behaviour. *American Journal of Sociology*, Vol. 96, pp. 589-625.
- Baker, M. and J. Wurgler, (2002). Market Timing and Capital Structure. *The Journal of Finance*, Vol. 57, No. 1, pp. 1-32.
- Baldwin, J. R., G. Gellatly, and V. Gaudreault, (2002). Financing Innovation in New Small Firms: New Evidence from Canada. Analytical Studies Branch – Research Paper Series. Statistics Canada No. 11FOO19 MIE No. 190. Micro-Economic Analysis Division 24-B R. H. Coats Building, Ottawa K 1 A OT6. ISBN-10: 662322231, pp. 1-51.
- Baldwin, J. R., T. Gray, J. Johnson, J. Proctor, M. Rafiquzzaman and D. Sabourin, (1997). Failing Concerns: Business Bankruptcy in Canada. Catalogue No. 61-525 XIE, pp. 1-72.
- Baltensperger, E., (1978). Credit Rationing: Issues and Questions. *Journal of Money, Credit and Banking*, Vol. 10, Issue 2, pp. 170-183.
- Baltsenberger, E., (1976). The Borrower Lender Relationship, Competitive Equilibrium, and the Theory of Hedonic Price. *American Economic Review*, Vol. 66, No. 3, pp. 401-403.

- Bank of Ghana, (BOG) (2006). Annual Report and Account for 2006. Bank of Ghana Head Office, Accra, Ghana, Publications, pp. 1-75.
- Bannock, G. and A. Doran, (1991). Business Banking in the 1990s: A New Era of Competition, Lafferty Group, Dublin.
- Barham, B. L., S. Boucher, and M. R. Carter, (1996). Credit Constraints, Credit Unions, and Small-Scale Producers in Guatemala. *World Development*, Vol. 24, No. 5, pp. 793-806.
- Barney, J. B, (1991) Firm Resources and Sustained Competitive Advantage, *Journal of Enterprise Management*, Vol. 17, No.1, pp. 99-120.
- Barney, J. B. and M. H. Hansen, (1994). Trustworthiness as a Source of Competitive Advantage. *Strategic Management Journal*, Vol. 15, pp. 175-190.
- Barney, J. B., M. Wright, and D. J. Ketchen, (2001). The Resource-based View of the Firm: Ten Years After 1991, *Journal of Management*, Vol. 27, pp. 625-641.
- Baron, R. A., (1998). Cognitive mechanisms in Entrepreneurship: Why and When Entrepreneurs Think Differently than other people. *Journal of Business Venturing*, Vol. 13, pp. 275-294.
- Baron, R. A. And M. D. Ensley, (2006). Opportunity Recognition as the Detection of Meaningful Patterns: Evidence from Comparisons of Novice and Experienced Entrepreneurs. *Management Science*, Vol. 52, No. 9, pp. 1331-1344.
- Baron, R. A. and M. Ensley, (2003). Cognitive Foundation of Opportunity Recognition: Identifying the "Opportunity Prototypes" of Repeat Entrepreneurs. Presentation at the Babson College-Kauffman Foundation Entrepreneurial Research Conference, Wellesley MA, pp. 1-17.
- Barreto, H., (1989). The Entrepreneur in Microeconomic Theory: Disappearance and Explanation. London: Routledge, pp. 1-153.
- Barro, R. J., (1976). The Loan Market, Collateral and Rate of interest. *Journal of Money, Credit and Banking*, Vol.8. No. 4, pp. 439-4568.



- Barton, S. L., (1989). Capital Structure Decisions in Privately held Firms. A Summary of Owner Interviews. Working Paper. College of Business Administration, University of Cincinnati, Cincinnati, OH, pp. 1-12.
- Barton, S. L. and P. J. Gordon, (1987). Corporate Strategy: Useful Perspective for the Study of Capital Structure. *Academy of Management Review*, Vol. 12, No. 1, pp. 67-75.
- Barton, S. L. and C. Mathews, (1989). Small Firm Financing: Implications from a Strategic Management Perspective. *Journal of Small Business Management*, Vol. 27, pp. 1-7.
- Basu, A., (1998). The Role of Institutional Support in Asian Entrepreneurial Expansion in Britain, *Journal of Small Business and Enterprise Development*, Vol. 5, No. 4, pp. 317-326.
- Basu, S., (1992). Asymmetric Information, Credit Rationing and the Stiglitz and Weiss Model. Macquarie University School of Economic and Financial Studies. Research Paper No. 360, ISBN No. 0858378264, pp. 1-24.
- Basu, A. and S. C. Parker, (2001). Family Finance and New Business Start-Ups. *Oxford Bulletin of Economics and Statistics*, Vol. 63, No. 3, pp. 0305-9049.
- Bates, R., (1977). Institutions as Investments. *Journal of African Economies*, Vol. 6, No. 3, pp. 1-23.
- Bates, T., (1997). Financing Small Business Creation: The Case of Chinese and Korean Immigrant Entrepreneurs, *Journal of Business Venturing*, Vol. 12, pp. 109-24.
- Bates, T., (1991). Commercial Bank Finance in White and Black Owned Small Business Start-ups. *Quarterly Review of Economics and Business*, Vol. 31, No. 3, pp.64-89.
- Bates, T., (1990). Entrepreneur Human Capital Input and Small Business Longevity *Review of Economics and Statistics*, Vol. 72, No. 4, pp. 551-559.
- Batjargal, B., (2003). Social Capital and Entrepreneurial Performance in Russia: A Longitudinal Study. *Organisational Studies*, Vol. 24, No. 4, pp. 535-556.

- Bawumia, M., (2007). Banking in Ghana in the Last 50 Years. Challenges and Prospects. A Keynote Address by Dr. Mahamuda Bawumia, Deputy Governor, Bank of Ghana, at the Launch of Ghana Banking Awards at M-Plaza, Accra in January, 23, 2007, pp. 1-5.
- Baydas, M. M., R. L. Meyer and N. Aguilera-Alfred, (1994). Credit Rationing in Small-Scale Enterprises: Special Micro-enterprise Programmes in Ecuador. *The Journal of Development Studies*, Vol. 31, No. 2, pp. 279-309.
- Becheikh, N., R. Landry, and N. Amara, (2006). Lessons from Innovation Empirical Studies in the Manufacturing Sector: A Systematic Review of the Literature from 1993-2003. *Technovation*, Vol. 26, pp. 644-664.
- Bechetti, L. and G. Trovato, (2002). The Determinants of Growth for Small and Medium-sized Firms: The Role of the Availability of External Finance. *Small Business Economics*, Vol. 19, pp. 291-306.
- Beck, T. M. and A. Demirguc-Kunt, (2006). Small and Medium-Size Enterprises: Access to Finance as a Growth Constraint. *Journal of Banking and Finance*, Vol. 30, pp. 2931-2943.
- Beck, T., M. Lundberg, and G. Majnoni, (2006). Financial Intermediary Development and Growth Volatility: Do Intermediaries Dampen or Magnify Shocks? *Journal of International Money and Finance*, Vol. 25, Issue 7, pp. 1146-1167.
- Becker, G. S., (1975). Human Capital, New York: National Bureau of Economic Research. Second Edition Columbia University Press, pp. 1-220.
- Becker, G. S., (1964). Human capital, A Theoretical and Empirical Analysis with Special Reference to Education, Columbia University, pp. 1-210.
- Becker, G. S., (1993). Nobel Lecture: The Economic Way of Looking at Behaviour. *The Journal of Political Economy*, Vol. 101, No. 3, pp. 385-409.
- Becker, L., (1996). Trust as Non-Cognitive Security about Motives. *Ethics*, Vol. 107, pp. 43-61.

- Begley, T. and D. Boyd, (1987). Psychological Characteristics Associated with Performance in Entrepreneurial Firms and Smaller Businesses. *Journal of Business Venturing*, Vol. 2, pp. 79-93.
- Bejou, D., C. T. Ennew, and A. Palmer, (1998). Trust, Ethics and Relationship Satisfaction. *International Journal of Bank Marketing*, Vol. 16, No. 4, pp. 170-175.
- Bengelsdijk, S., (2006). A Note on the Theory and Measurement of Trust in Explaining Differences in Economic Growth. *Cambridge Journal of Economic*, Vol. 30, pp. 371-387.
- Berger, A. N. and R. DeYoung, (2006). Technological Progress and the Geographic Expansion of the Banking Industry. *Journal of Money, Credit and Banking*, Vol. 38, pp. 1483-1513.
- Berger, A. N., R.S. Demsetz, and P. E. Strahan, (1999). The Consolidation of Financial Services Industry: Causes, Consequences, and Implications for the Future. *Journal of Banking and Finance*, Vol. 23, pp. 135-194.
- Berger, A. N. and W. S. Frame, (2007). Small Business Credit Scoring and Credit Availability. *Journal of Small Business Management*, Vol. 45, No. 1, pp. 5-22.
- Berger, A. N., N. H. Miller, M. A. Petersen, R. G. Rajan, and J. C. Stein, (2005). Does Function Follow Organisational Form? Evidence from the Lending Practices of Large and Small Banks. *Journal of Financial Economics*, Vol. 76, pp. 237-269.
- Berger, A. N. and G. F. Udell, (2002). Small Business Credit Availability and Relationship Lending: The Importance of Bank Organisational Structure. *The Economic Journal*, Vol. 112, pp. F32– F53.
- Berger, A. N. and G. F. Udell, (1998). The Economics of Small Business Finance: The Roles of Private Equity and Debt Markets in the Financial Growth Cycle. *Journal of Banking and Finance*, Vol. 22, Issue 6-8, pp. 873-897.
- Berger, A. N. and G. F. Udell, (1995). Relationship Lending and Lines of Credit in Small Firm Finance. *Journal of Business*, Vol. 68, pp. 351–381.

- Berger, A. N. and G. F. Udell, (1994). Lines of Credit, Collateral and Relationship Lending in Small Firm Finance. Working Paper (S-94/11), Salomon Brothers Centre for the Study of Financial Institutions, New York University, pp. 1-44.
- Berger, A. N. and G. F. Udell, (1992). Some Evidence on the Empirical Significance of Credit Rationing. *Journal of Political Economy*, Vol. 100, No. 5, pp. 1047-1077.
- Berger, A. N. and G. F. Udell, (1990). Collateral, Loan Quality and Bank Risk. *Journal of Monetary Economics*, Vol. 25, pp. 21-42.
- Berlin, M. and L. J. Mester, (1998). On the Profitability and Relationship Lending. *Journal of Banking and Finance*, Vol. 22, pp. 873-898.
- Berry, A., S. Faulkner, M. Hughes, and R. Jarvis, (1993). Bank Lending: Beyond the Theory. London: Chapman and Hall. ISBN-10: 0412473100, Thompson Learning College Publications, pp. 1-75.
- Berry, A., P. Grant, and R. Jarvis, (2004). European Bank Lending to the UK SME Sector: An Investigation of Approaches Adopted. *International Small Business Journal*, Vol. 22, pp. 115-130.
- Besanko, D. and A. Thakor, (1987a). Collateral and Rationing: Sorting Equilibria in Monopolistic and Competitive Credit Markets, *International Economic Review*, Vol. 28, No.3, pp. 671-689.
- Besanko, D. and A. Thakor, (1987b). Competitive Equilibrium in the Credit Market under Asymmetric Information, *Journal of Economic Theory*, Vol. 42, pp. 167-182.
- Besley, T., (1994). How Do Market Failures Justify Interventions in Rural Credit Markets? *The World Bank Research Observer*, Vol. 9, No. 1, pp. 27-47.
- Bester, H., (1987). The Role of Collateral in Credit Markets with Imperfect Information, *European Economic Review*, Vol.31. pp. 887-899.
- Bester, H. (1985). Screening versus Rationing in Credit Markets with Imperfect Information. *American Economic Review*, Vol. 57, pp. 850-855.

- Bester, H., (1994). The Role of Collateral in a Model of Debt Renegotiation, *Journal of Money, Credit and Banking*, Vol. 26, pp. 72-86.
- Bester, H. and M. Hellwig, (1987). Moral Hazard and Equilibrium Credit Rationing: An Overview of the Issues in Bamberg, G and Spremann, K., (eds). *Agency Theory, Information and Incentives*, Heidelberg: Sringer Verlag. Discussion Paper Series A, No. 125, pp. 135-166.
- Bester, H. and E. Petrakis, (1995). Price Competition and Advertising in Oligopoly. *European Economic Review*, Vol. 39, pp. 1075-1088.
- Bhaird, C. M. and B. Lucey, (2006). Capital Structure and the Financing of SMEs: Empirical Evidence from An Irish Survey. A Conference Paper Entitled: Entrepreneurship – Occupational Choice and Financing. Centre for Economic and Business Research, Copenhagen, pp. 1-29.
- Bharath, S., S. Dahiya, A. Saunders, and A. Scinivasan, (2007). So What Do I Get? The Banks View of Lending Relationship. *Journal of Financial Economics*, Vol. 85, pp. 368-419.
- Bhati, S., (2006). Trust Between Branch Mangers and Loan Officers of Indian Banks. *International Review of Business Research Papers*, Vol. 2, No. 4, pp. 51-58.
- Bhide, A.V., (2000). *The Origin and Evolution of New Businesses*. New York Oxford University Press. ISBN-13: 9780195131444, pp. 1-412.
- Bies, R. J. and T. M. Tripp, (1996). Beyond Distrust: “Getting even” and the need for revenge. In R. M. Kramer and T. R. Tyler (Eds), *Trust in Organisation*, Newbury Park, CA: Sage Publications, pp. 246-260.
- Biggs, T., (2003). Is Small Beautiful and Worthy of Subsidy? Available at [www.unece.org.worldbanks\(un/ece\)](http://www.unece.org/worldbanks(un/ece)), pp. 1-35.
- Biggs, T., P. Raturi, and M. Srivastava, (2002). Ethnic Networks and Access to Credit: Evidence from the Manufacturing Sector in Kenya. *Journal of Economic Behaviour and Organisation*, Vol. 49, No. 4, pp. 473-486.

- Biggs, T. and P. Srivastava, (1996). Structural Aspects of Manufacturing in Sub-saharan Africa: Findings from a Seven Country Enterprise Survey. World Bank Discussion Paper, No. 346, pp. 1-80.
- Bigsten, A., P. Collier, S. Dercon, M. Fafchamps, B. Gauthier, J. W. Gunning, M. Soderbom, Oduro, R. Oostendorp, C. Patillo, F. Teal, and A. Zeufack, (2000). Credit constraints in manufacturing enterprises in Africa. Industrial Surveys in Africa (ISA) Group. Working Paper Series No. 2000/24. Centre for the Study of African Economics, University of Oxford, pp. 1-21.
- Binks, M. R. and C. T. Ennew, (1997). Smaller Businesses and Relationship Banking: The Impact of Participative Behaviour. *Entrepreneurship Theory and Practice*, Vol. 21, No. 4, pp. 83-92.
- Binks, M. R. and C. T. Ennew, (1996). Growing Firms and the Credit Constraint. *Small Business Economics*, Vol. 18, No. 1, pp. 17-25.
- Binks, M. R., C. T. Ennew, and G. V. Reed, (1992). Information Asymmetries and the Provision of Finance to Small Firms, *International Small Business Journal*, Vol. 11, No. 1, pp. 35-46.
- Binswanger, H., J. McIntire, and C. Udry, (1989). Production relations in semi-arid African agriculture in P. Bardhan (Ed), *The economic theory of Agrarian institutions*. Oxford: Clarendon press, 1989.
- Binswanger, H. P. and M. R. Rosenzweig, (1986). Behavioural and Material Determinants of Production Relations in Agriculture. *Journal of Development Studies*, Vol. 22, pp. 503-539.
- Birch, D., (1979). The Job Generating Process. In *Small Business, Critical Perspectives on Business and Management* Edited by David Storey, Taylor and Francis Publications, pp. 431-466.
- Birley, S., (1985). The Role of Networks in the Entrepreneurial Process. *Journal of Business Venturing*, Vol. 1, No. 1, pp. 107-117.

- Birley, S., C. Moss and P. Saunders, (1987). Do Women Entrepreneurs Require Different Training? *American Journal of Small Business*, pp. 27-35.
- Birley, S. and P. Westhead, (1993). A Comparison of New Businesses Established by Novice and Habitual Founders in Great Britain, *International Small Business Journal*, Vol. 12, pp. 38-60.
- Birley, S. and P. Westhead, (1990). Private Business Sales Environments in the United Kingdom, *Journal of Business Venturing*, Vol. 5, pp. 349-373.
- Black, J. and D. de Meza, (1992). Diversionary Tactics: Why Business Loan is so Safe. Discussion Papers in Economics – University of Exeter, No. 9/92, pp. 1-12.
- Black, J., D. de Meza, and D. Jeffreys, (1996). House Prices, the Supply of Collateral and the Enterprise Economy. *The Economic Journal*, Vol. 106, pp. 60-75.
- Black, S. E. and P. E. Strahan, (2002). Entrepreneurship and Bank Credit Availability, *The Journal of Finance*, Vol. 57, No. 6, pp. 2807-2833.
- Blackwell, D. and D. Winter, (2000). Local Lending Markets: What a Small Business Owner/Manager needs to know. *Quarterly Journal of Business and Economics*, Vol. 39, No. 2, pp. 62-79.
- Blanc, X., (1977). Industrial Change Under Structural Adjustment: Tanzania 1993-1996. The African Regional Programme on Enterprise Development, Washington, D. C. World Bank.
- Blancard, S., J-P. Boussemart, W. Briec, and K. Kerstens, (2006). Short and Long-run Credit Constraints in French Agriculture: A Directional Distance Function Framework Using Expenditure-Constrained Profit Functions. *American Journal of Agricultural Economic*, Vol. 88, Issue 2, pp. 351-364.
- Blanchflower, D. G., P. B. Levine, and D. J. Zimmerman, (2003). Discrimination in the Small-Business Credit Market. *The Review of Economics and Statistics*, Vol. 85, No. 4, pp. 930-943.
- Blanchflower, D. C. and A. J. Oswald, (1998). What Makes an Entrepreneur? *Journal of Labour Economics*, Vol. 16, pp. 26-60.

- Blau, P. M., (1964). *Exchange and Power in Social Life*. New York: Wiley, pp. 1-343.
- Blinder, A. and J. Stiglitz, (1983). Money, Credit Constraint, and Economic Activity, *American Economic Review Papers and Proceedings*. Vol. 73, pp. 297-302.
- Blois, K. J., (1999). Trust in Business to Business Relationships: An Evaluation of its Status. *Journal of Management Studies*, Vol. 36, No. 2, pp. 197-215.
- Bloodgood, J. M., J. Sapienza and A. L. Carsrud, (1995). The Dynamics of New Business Start-ups: Person, Context and Process. In Katz, J. A. And S. Brockhaus (Eds) *Advances in Entrepreneurship, Firm Emergence and Growth*, Greenwich, CT: JAI Press, Vol. 2, pp. 123-144.
- Blumberg, B. F. and W. A. Letterie (2008). Business Starters and Credit Rationing. *Small Business Economics*, Vol. 30, pp. 187-200.
- Blumberg, B. F. and W. A. Letterie, (2002). Which Business Starters Experience Limited Access to Bank Funds? Maastricht University, Business Investment Research Centre, pp. 1-26.
- Boden, Jr., R. J. and A. R. Nucci, (2000). On the Survival Prospects of Men's and Women's new Business Venture. *Journal of Business Venturing*, Vol. 15, pp. 347-362.
- Bodt de E., F. Lobez and J.C. Statnik, (2005). Credit Rationing, Customer Relationship and the Number of Banks: an Empirical Analysis, *European Financial Management*, Vol. 11, No. 2, pp. 195-228.
- Boer, H. and W. E. During, (2001). Innovation, What Innovation? A. Comparison Between Product, Process and Organisational Innovation. *International Journal of Technology Management*, Vol. 22, No. (1-3), pp. 83-107.
- Boersma, M. F., P. J. Buckley, and P. N. Ghauri, (2003). Trust in International Joint Venture Relationships. *Journal of Business Research*, Vol. 56, pp. 1031-1042.



- Bonaccorsi di Patti, E. and G. Dell'Araccia, (2004). Bank Competition and firm creation. *Journal of Money, Credit and Banking*, Vol. 36, Issue 2, pp. 225-251.
- Bonaccorsi di Patti, E. and G. Gobbi, (2001). The Changing Structure of Local Credit Markets: Are Small Business Special? *Journal of Banking and Finance*, Vol. 25, pp. 2209- 2237.
- Bond, S., J. A. Elston, J. Mairesse, and B. Mulkay, (2003). Financial Factors and Investments in Belgium, Finance, Germany and United Kingdom: A Comparison using Company Panel Data. *The Review of Economic and Statistics*, Vol. 85, pp. 153-165.
- Boocock, G. and M. N. M. Shariff, (2005). Measuring the Effectiveness of Credit Guarantee Schemes, Evidence from Malaysia. *International Small Business Journal*, Vol. 23, No. 4, pp. 427-454.
- Boocock, G. and M. Woods, (1997). The Evaluation Criteria Used by Venture Capitalists: Evidence from a UK Venture Fund. *International Small Business Journal*, Vol. 16, No. 1, pp. 36-57.
- Boomgard, J., (1989). A. I. D. Microenterprise Stocktaking: Synthesis Report, Bethesda, MD, Development Alternatives. USAID Evaluation Special Study, USAID, Washington, D. C. No. 65, pp. 1-15.
- Boon, E. K., (1989). Women in SMEs: An African Example. *Courier*, No. 115, May-June, pp. 74-76.
- Boot, A. W. A., (2000). Relationship Banking: What Do We Know? *Journal of Financial Intermediation*, Vol. 9, pp. 7-25.
- Boot, A. W. A. and A. V. Thakor, (1997). Banking Scope and Financial Innovation. *The Review of Financial Studies*, Vol. 10, No. 4, pp. 1099-1131.
- Boot, A. W. A. and A. V. Thakor, (1994). Moral Hazard and Secured Lending in an Infinitely Repeated Credit Market Game. *International Economic Review*, Vol. 35, pp. 899-920.

- Boot, A. W. A., A. V. Thakor, and G. Udell, (1991). Secured Lending and Default Risk Equilibrium Analysis, Policy Implication and Empirical Results. *Economic Journal*, Vol. 101, pp. 458-472.
- Born, M. and W. M. M. Altink, (1996). The Importance of Behavioural and Situational Characteristics for Entrepreneurial Success: An International Rating Study. *International Journal of Selection and Assessment*, Vol. 4, No. 2, pp. 71-77.
- Bornstein, D., (1996). *The Price of a Dream: The Story of the Grameen Bank and the Idea that is Helping the Poor to Change their Lives*, Simon and Schuster, New York, pp. 1-2.
- Bose, J., (2001). Non-response Bias Analyses at the National Center for Education Statistics. Proceeding of Statistics Canada Symposium, 1990 K. St. NW, Washington DC 20006, USA. Achieving Data Quality in a Statistical Agency: A Methodological Perspective, pp. 1-8.
- Bougheas, S., P. Mizen, and C. Yalcin, (2006). Access to External Finance: Theory and Evidence on the Impact of Monetary Policy and Firm-Specific Characteristics. *Journal of Banking and Finance*, Vol. 30, Issue 1, pp. 199-227.
- Bourdieu, P., (1986). The Forms of Social Capital. In: J. C. Richardson (ed). *Handbook of Theory and Research for the Sociology of Education*. New York, Greenwood: pp. 241-258.
- Boxall, P. and M. Streeneveld, (1999). Human Resource Strategy and Competitive Advantage: A Longitudinal Study of Engineering Consultancies. *Journal of Management Studies*, Vol. 6, No. 4, pp. 443-463.
- Boxman, E. A. W., P. M. De Graft, and H. D. Flap, (1991). The Impact of Social and Human Capital on the Income Attainment of Dutch Managers. *Social Networks*, Vol. 13: pp. 51-73.
- Branch, A. E., (1995). *Elements of Export Marketing and Management*, 2<sup>nd</sup> (ed). Chapman and Hall, London, pp. 114.
- Brander, J. A., R. Amit and W. Antweiler, (2002). Venture Capital Syndication: Improved Venture Selection versus the Value-added Hypothesis. *Journal of Economics and Management Strategy*, Vol. 11, No. 3, pp. 422-451.

- Brass, D. J., K. D. Butterfield, and B. C. Skaggs, (1998). Relationships and Unethical Behaviours: A Social Network Perspective. *Academy of Management Review*, Vol. 23, pp. 14-31.
- Brealey, R. A. and S. C. Myers, (1991). Principles of Corporate Finance (Fourth Edition.). New York: McGraw Hill. ISBN-10: 0071007563, ISBN-13: 9780071007566, pp. 1-1024.
- Brettel, M., (2003). Business Angels in Germany: A Research Note. *Venture Capital: An International Journal of Entrepreneurial Finance*, Vol. 5, No. 3, pp. 251-268.
- Brettel, M., (2002). German Business Angels in International Comparison. *Journal of Private Equity*, Vol. 5, Issue 2, pp. 53.
- Brevoort, K. P. and T. H. Hannan, (2006). Commercial Lending and Distance: Evidence from Community Reinvestment Act Data. *Journal of Money, Credit, and Banking*, Vol. 38, No. 8. pp. 1991-2012.
- Brewer, E., (2007). On Lending to Small Firms. *Journal of Small Business Management*, Vol. 45, No. 1, pp. 42-46.
- Brewer, G., H. Genay, H. Jackson, and W. Worthington, (1996). How are Small Firms Financed? Evidence from Small Business Investment Companies. *Economic Perspective*, Federal Reserve Bank of Chicago, Chicago, pp. 2-18.
- Brockner, J., T. R. Tyler, and R. Cooper-Schneider, (1992). The Influence of Prior Commitment to an Institution on Reaction to Perceived Unfairness: The Higher They Are, The Harder They fall. *Administrative Science Quarterly*, Vol. 37, pp. 241-261.
- Brown, M., T. Jappelli, and M. Pagano, (2009). Information Sharing and Credit: Firm-Level Evidence From Transition Conditionals. *Journal of Financial Intermediation*, Vol. 18, Issue 2, pp. 151-172.
- Brown, T. E. and B. A. Kirchoff, (1997). Resource Acquisition Self-efficacy: Measuring Entrepreneur's Growth Ambitions. In P. D. Reynolds, W. D. Carter, P. Dividsson, W. B. Garter, and P. McDougall (Eds.), *Frontiers in Entrepreneurship Research*, 1997, pp. 59-60. Wellesley, MA: Babson College.

- Brownbridge, M., C. Harvey, and A. F. Gockel, (1998). *Banking in Africa: The Impact of Financial Sector Reform Since Independence*: Currey Publications. ISBN 0865436924 pp. 1-242.
- Brüderl, J., P. Preisendörfer, and R. Ziegler, (1992). Survival Changes of Newly Founded Business Organisations. *American Sociological Review*, Vol. 57, No. 2, pp. 227-242.
- Brush, C., (1992). Research on Women Business Owners: Past Trends, A New Perspective and Future Directions. *Entrepreneurship Theory and Practice*, Vol. 16, pp. 5-30.
- Buame, S. K., (1996). *Entrepreneurship: A Contextual Perspective, Discourses and Praxis of Entrepreneurial Activities within the Institutional Context of Ghana*, Lund University Press, pp. 1-256.
- Buatsi, S. N., (2002). Financing Non-traditional Exports in Ghana, *Journal of Business and Industrial Marketing*, Vol. 17, No. 6, pp. 501-522.
- Buckland, R. and E. W. Davis, (1990). The Pricing of New Issues on the Unlisted Securities Market: the Influence of Firm Size in the Context of the Information Content of New Issue Prospectuses, *British Accounting Review*, Vol. 22, pp. 207-22.
- Burke, A. and A. Hanley, (2006). Bank Interest Margins and Business Start-up Collateral: Testing for Convexity. *Scottish Journal of Political Economy*, Vol. 53, No. 3, pp. 319-334.
- Burkhart, M. and T. Ellingsen, (2004). In-kind Finance: A theory of Trade Credit. *American Economic Review*, Vol. 94, No. 3, pp. 569-590.
- Burt, R. S., (1992). *Structural Holes: The Social Structure of Competition*. Cambridge, MA: Harvard University Press, 1-311.
- Burt, R. S., (1987). Social Contagion and Innovation: Cohesion versus Structural Equivalence. *American Journal of Sociology*, Vol. 92, pp. 1287-1335.

- Burt, R. S. and M. Knez, (1996). Trust and Third Party Gossip. In R. M. Kramer and T. R. Tyler (Eds), *Trust in Organisation*, Thousand Oaks, CA: Sage Publications, pp. 68-89.
- Busenitz, L.W., (1996). Research on Entrepreneurial Alertness: Sampling, Measurement, and Theoretical Issues. *Journal of Small Business Management*, Vol. 34, No. 4, pp. 35-44.
- Busenitz, L. and J. Barney, (1997). Differences between Entrepreneurs and Managers in Large Organisations: Biases and Heuristics in Strategic Decisions-making. *Journal of Business Venturing*, Vol. 12, pp. 9-30.
- Butler, J. K., (1991). Towards Understanding and Measure Conditions of Trust. Evaluation of Trust Inventory. *Journal of Management*, Vol. 17, pp. 643-663.
- Butler, J. K. and R. S. Cantrell, (1984). A Behavioural Decision Theory Approach to Frame Working Dyadic Trust in Superior and Subordinates. *Psychological Report*, Vol. 55, pp. 19-28.
- Butler, J. S. and C. Herring, (1991). Ethnicity and Entrepreneurship in America: Towards an Explanation of Racial and Ethnic Group Variations in Self-employment. *Sociological Perspectives*, Vol. 34, No. 1, 79-94.
- Bygrave, W. D. and C. W. Hofer, (1991). Theorizing About Entrepreneurship. *Entrepreneurship Theory and Practice*, Vol. 16, pp. 13-22.
- Cabral, L. and J. Mata, (2003). On the Evolution of Firm Size Distribution Facts and Theory. *American Economic Review*, Vol. 93, Issue 4, pp. 1075-1090.
- Cadwell, C. and P. Meagher, (1996). Collateral Law and Economic Transitions, Economic Reform Toadt, Technical Paper, No. 1, pp. 1-4
- Capra, M. C., I. Comeig and M. O. Fernandez, (2002). Moral Hazard and Credit Screening: Experimental Evidence. Working Paper, Department of Economics, Emory University, Atlanta, GA. 30322, USA, pp. 1-31.

- Cardone, C., M-J. Casasola, and M. Samartin, (2005). Do Banking Relationships Improve Credit Conditions for Spanish SMES? Universidad Carlos III de Madrid, Departamento de Economía de la Empresa, Calle Madrid, 126. Working Paper 05 – 28, Business Economics Series 06, pp. 1-36.
- Carling, K. and S. Lundberg, (2005). Asymmetric Information and Distance: An Empirical Assessment of Geographical Credit Rationing. *Journal of Economics and Business*, Vol. 57, pp. 39-59.
- Carow, K. A., E. Kane, and R. Narayanan, (2005). How Have Borrowers Fared in Banking Mega-Mergers? Federal Reserve Bank of San Francisco, Working Paper 2005-09, pp. 1-23.
- Carpenter, R. E. and B. C. Petersen, (2002a). Capital Market Imperfections, High-Tech Investment and New Equity Financing. *The Economic Journal*, Vol. 112, pp. F54-F72.
- Carpenter, R. E. and B. C. Petersen, (2002b). Is the Growth of Small Firms Constrained by Internal Finance? *Review of Economics and Statistics*, MIT Press, Vol. 84, No.2, pp. 298-309.
- Carr, D., (1996). Two Paths to Self-employment? Women's and Men's Self-employment in the United States, 1980. *Work and Occupations*, Vol. 23, pp. 26-53.
- Carr, M., M. A. Chen, and J. Tate, (2000). Globalisation and Home-Based Workers, *Feminist Economics*, Vol. 6, No. 3, pp. 123-142.
- Carree, M. and A. R. Thurik, (2002). The Impact of Entrepreneurship on Economic Growth. In Zoltan Acs and David B. Audretsch (2003). Chapter 17, Prepared for the International Handbook of Entrepreneurship Research, Boston/Dordrecht: Edited by Zoltan A Kluwer Academic Publishers, PP. 1-28.
- Carroll, G. and E. Mosakowski, (1987). The Career Dynamics of Self-employment. *Administrative Science Quarterly*, Vol. 32, pp. 570-589.

- Carter, D. A. and J. E. McNulty (2005). Deregulation, Technological change and the business-lending performance of large and small banks. *Journal of Banking and Finance*, Vol. 29, Issue 5, pp. 1113-1130.
- Carter, S. and M. Ram, (2003). Reassessing portfolio entrepreneur, *Small Business Economics*, Vol. 21, pp. 371-380.
- Carter, R. B. and H. Van Auken, (2005). Bootstrap Financing and Owners Perceptions of their Business Constraints and Opportunities. *Entrepreneurship and Regional Development*, Vol. 17, Issue 2, pp. 129-144.
- Cassar, G., (2004). The Financing of Business Start-ups. *Journal of Business Venturing*, Vol. 19, pp. 261-283.
- Cassar, G. and S. Holmes, (2003). Capital Structure and Financing of SMEs: Australian Evidence. *Accounting and Finance*, Vol. 43, pp. 123-147.
- Casson, M., (2003). *The Entrepreneur: An Economic Theory*. Edward Elgar Publishers, Cheltenham, pp. 1-284.
- Casson, M., (1982). *The Entrepreneur: An Economic Theory* (Martin Robertson, Oxford. Roman and Littlefield Publishers, ISBN-10: 0389203289, ISBN-13: 9780389203285, pp. 1-418.
- Castelli, A., G.P. Dwyer, and I. Hasan, (2006). Banking Relationships and Small Firms Financial Performance. Federal Reserve Bank of Atlanta. Working paper Series No. 2006-5, pp. 1-28.
- Cavalluzzo, K., L. Cavalluzzo, and J. Wolken, (2002). Competition, Small Business Financing, and Discrimination: Evidence from a New Survey. *Journal of Business*, Vol. 75, No. 4, pp. 641-679.
- Cavalluzzo, K. and J. Wolken, (2005). Small Business Loan Turndowns, Personal Wealth and Discrimination. *Journal of Business*, Vol. 78, No. 6, pp. 2153-2177.

- Cerqueiro, G., H. Degryse, and S. Ongena, (2007). Distance, Bank Organisation Structure, and Credit." TILEC discussion paper, DP 2007-018, ISSN 1572 – 4042, Tilburg University, TILEC, The Netherlands, pp. 1-30.
- Chakravarty, S. and J. S. Scott, (1999). Relationships and Rationing in Consumer Loans. *Journal of Business*, Vol. 72, No. 4, pp. 523-544.
- Chakravarty, S. and T. Yilmazer, (2004). A Re-examination of the Role of Relationships in the Loan Granting Process. Working paper. Purdue University, pp. 1-29.
- Chan, Yuk-shee, and Anjan V. Thakor, (1987). Collateral and Competitive Equilibria with Moral Hazard and Private Information. *Journal of Finance*, Vol. XLII, No. 2.
- Chan, Y.S. and G. Kanatas, (1985). Asymmetric Valuation and the Role of Collateral in Loan Agreements, *Journal of Money, Credit and Banking*, Vol. 17, pp. 85-95.
- Chase, S. B. Jr., (1961). Credit Risk and Credit Rationing: Comment. *Quarterly Journal of Economics*, Vol. 75, pp. 319-327.
- Chen, M., (2001). Women in the Informal Sector: A Global Picture, the Global Movement, *SAIS Review*, Vol. XXI, 1, pp. 71-82.
- Chen, Y-H, and S. Barnes, (2007). Initial Trust and Online Buyer Behaviour. *Industrial Management and Data Systems*, Vol. 107, No. 1, pp. 21-36.
- Chiappori, P. A., D. Perez-Castrillo, and T. Verdier, (1995). Spatial Competition in the Banking System: Localisation, Cross Subsidies and Regulation of Deposit Rates. *European Economic Review*, Vol. 39, pp. 889-918.
- Chiles, T. H. and J. F. McMackin, (1996). Integrating Variable Risk Preferences, Trust and Transaction Cost Economics. *Academy of Management Review*, Vol. 21, No. 7, pp. 73-99.
- Chinn, P. L. and M. K. Kramer, (1999). Theory and Nursing: A Systematic Approach (5<sup>th</sup> ed). St. Louis, Mosby, pp. 1-255.



- Chirinko, R. S. and A. R. Singha, (2000). Testing Static Trade-off against Pecking Order Models of Capital Structure: a Critical Comment. *Journal of Financial Economics*, Vol. 58, Issue 3, pp. 417-425.
- Chittenden, F., G. Hall, and P. Hutchinson, (1996). Small Firm Growth, Access to Capital Markets and Financial Structure: Review of Issues and an Empirical Investigation. *Small Business Economics*, Vol. 8, pp. 59-67.
- Christensen, J. L., (2007). Constraints on Innovation Finance in North Jutlant, Denmark. *European Planning Studies*, Vol. 15, No. 9, pp. 1163-1180.
- Clemenz, G., (1986). Credit Markets with Asymmetric Information Lecture Notes in Economics and Mathematical Systems, Berlin-Heidelberg, Springer-Verlag Publications, ISBN-10: 038167781, ISBN-13: 9780387167787, pp. 1-220.
- Cochran, W. G., (1997). Sampling Techniques, 3<sup>rd</sup> edition. New York, NY: John Wiley and sons.
- Coco, G., (2000). On the use of collateral. *Journal of Economic Surveys*, Vol. 14, pp. 191-214.
- Cohen, W., (1995). Empirical Studies of Innovative Activity in: Stoneman, P. (ed). *Handbook of the Economics of Innovation and Technological Change*. Blackwell, Oxford, pp. 182-264.
- Cohen, D. and L. Prusak, (2001). In Good Company: How Social Capital makes Organisations Work. Boston, MA: Harvard Business School Press. ISBN-10: 087584913X, ISBN-13: 9780875849133, pp. 1-214.
- Cohn, E. and T. G. Geske, (1990). The Economics of Education (3<sup>rd</sup> Eds.), Pergamon, Oxford. Butterworth-Heinemann Publications, ISBN-10: 0080377580, ISBN-13: 9780080377582, pp. 1-452.
- Cole, R. A., (1998). The Importance of Relationships to the Availability of Credit. *Journal of Banking and Finance*, Vol. 22, pp. 959-977.

- Cole, R. A., L. G. Goldberg, and L. J. White, (2004). Cookie-cutter versus Character: The Micro Structure of Small-Business Lending by Large and Small Banks. *Journal of Financial and Quantitative Analysis*, Vol. 39, pp. 227-252.
- Cole, R. and N. Walraven, (1998). Bank Consolidation and the Availability of Credit to Small Businesses." Munich Personal RePEc Archive MPRA paper No. 4716, pp. 1-25.
- Coleman, J. S., (1990). *Foundation of Social Theory*. Harvard University Press, Belknap Press, Cambridge. ISBN-10: 0674312252, ISBN-13: 9780674312258, pp. 1-1014.
- Coleman, J. S., (1988). Social Capital in the Creation of Human Capital. *American Journal of Sociology*, Vol. 94 (Supplement): pp. S95-S120.
- Coleman, J. S. and R. Cohn, (2000). Small Firm's Use of Financial Leverage: Evidence from the 1993 National Survey of Small Business Finances. *Journal of Business and Entrepreneurship*, Vol. 12, No. 3, pp. 81-98.
- Coleman, A. D. F., E. Neil, and I. G. Sharpe, (2006). Does Bank Monitoring Influence Loan Contract Terms. *Journal of Financial Services Research*, Vol. 30, No. 2, pp. 177-198.
- Collender, R. N. and S. Shaffer, (2003). Local Bank Ownership, Deposit Control, Market Structure, and Economic Growth. *Journal of Banking and Finance*, Vol.27, pp. 27-57.
- Collier, P. and J.W. Gunning, (1999). Explaining African Economic Performance, *Journal of Economic Literature*, Vol. 37, pp. 64-111.
- Cook, T. D. and D. T. Campbell, (1979). *Quasi- Experimentation: Design and Analysis Issues Field Settings*. Wadsworth Publishing, ISBN-10: 0395307902, ISBN-13: 9780395307908, PP. 1-405.
- Cook, P. and F. Nixon, (2000). Finance and Small and Medium-sized Enterprise Development. Finance and Development Research Programme Working Paper Series, No. 14, IDPM University of Manchester, pp. 1-28.

- Cooper, A. C. and W. C. Dunkelberg, (1987). Entrepreneurial Research: Old Questions, New Answers and Methodology Issues. *American Journal of Small Business*, Vol. 11, pp. 11-24.
- Cooper, A. C. and W. C. Dunkelberg, (1986). Entrepreneurship and Paths to Business Ownership, *Strategic Management Journal*, 7, No. 1, pp. 53-68.
- Cooper, A. C., T. B. Folta, and C. Woo, (1995). Entrepreneurial Information Search. *Journal of Business Venturing*, Vol. 10, pp. 107-120.
- Cooper, A. C., J. Gimeno, and C. Woo, (1994). Initial Human and Financial Capital as Predictors of New Venture Performance. *Journal of Business Venturing*, Vol. 9, No.5, pp. 371-395.
- Corazzini, A. J., (1967). When Should Vocational Education Begin? *Journal of Human Resources*, Vol. 2, Issue 1, pp. 41-50.
- Corbett, A., (2002). Recognising High-Tech Opportunities: A Learning and Cognitive Approach. In W. D. Bygrave, C.G. Brush, P. Davidsson, J. Fiet, P. G. Greene, R. T. Harrison, M. Lerner, G. D. Meyer, J. Sohl, and A. Zacharakis (eds), *Frontiers of Entrepreneurship Research*, Wellesley, MA: Babson College, pp. 49-61.
- Cosh, A., J. Duncan, and A. Hughes, (1996). The Changing State of British Enterprise: Growth Innovation and Competitive Advantage in SMEs 1986-1995, Chapter 5. Cambridge University: ESRC Centre for Business Research, pp. 1-24.
- Cosh, A. and A. Hughes, (2003). Enterprise Challenge: Policy and Performance in the British SME sector 1999-2002. ESRC Centre for Business Research.
- Cosh, A. and A. Hughes, (1998). Enterprise Britain: Growth, Innovation and Public Policy in the Small and Medium-sized Enterprise Sector 1994-1997. ESRC Centre for Business Research, Cambridge University, Cambridge, pp. 1-320.
- Cosh, A. and A. Hughes, (1994). Size, Financial Structure and Profitability: UK Companies in the 1980s, in A. Hughes and D. J. Storey (eds). *Finance and the Small Firms*. (Routledge), pp. 19-63.

- Cosh, A. and E. Wood, (1998). Innovation: Scale, Objectives, and Constraints, in: Cosh, A. and Hughes, A., (1998). *Enterprise Britain: Growth, Innovation and Public Policy in the Small and Medium-sized Enterprise Sector 1994-1997*. ESRC Centre for Business Research, Cambridge University, Cambridge, pp. 38-48.
- Coulter, K. S. and R. A. Coulter, (2006). Determinants of Trust in a Service Provider: The Moderating Role of Length of Relationship. *Journal of Service Marketing*, Vol. 16, No. 1, pp. 35-50.
- Couper, M. P., (2000). Web-Survey, A Review of Issues and Approaches. *Public Opinion Quarterly*, Vol. 64, No. 4, pp. 464-494.
- Cowling, M. and P. Mitchell, (2003). Is the Small Firms Loan Guarantee Scheme Hazardous for Banks or Helpful to Small Business? *Small Business Economics*, Vol. 21, pp.63-71.
- Cowling, M. and P. Westhead, (1996). Bank Lending and Decisions and Small Firms: Does Size Matter? *International Journal of Entrepreneur Behaviour and Research*, Vol. 2 No. 2, pp. 52-68.
- Craig, B. R., W. E. Jackson III, and J. B. Thomson, (2007). Small Firm Finance, credit Rationing and the Impact of SBA-Guaranteed Lending on Local Economic Growth. *Journal of Small Business Management*, Vol. 45, No.1, pp. 116-132.
- Creed, D.W. E. and R. E. Miles, (1996). A Conceptual Framework Linking Organisational Forms, Managerial Philosophies, and the Opportunity Costs of Controls. In R. M. Kramer and T. R. Tyler (eds). *Trust on Organisation* Thousand Oaks. CA: Sage Publications, pp. 16-38.
- Cresswell, J. W., (2002). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. (2<sup>nd</sup> ed). Sage Publications, pp. 1-246.
- Cressy, R. C., (1996). Are Business Start-ups Debt Rationed? *The Economic Journal*, Vol. 106, pp. 1253-1270.
- Cressy, R. C., (1995). Commitment Lending Under Asymmetric Information: Theory and Test on UK Start-up Data. *Small Business Economics*, Vol. 8, pp. 397-408

- Criscuolo, C., J. Haskel and M. J. Slaughter, (2005). Global Engagement and the Innovation Activities of Firms. NBER Working Paper, No. 11479, pp. 1-48.
- Crook, J., (1999). Who is Discouraged from Applying for Credit? *Economics Letters*, Vol. 65, pp. 165-172.
- Crook, J., (1996). Credit Constraints and US Households. *Applied Financial Economics*, Vol. 6, pp. 477-485.
- Cruickshank, D., (2000). Competition in UK Banking. A Report to the Chancellor of the Exchequer. HMSO, London, pp. 1-30.
- Cuevas, J. G., (1994). Towards a Taxonomy of Entrepreneurial Theories. *International Small Business Journal*, Vol. 12, pp. 77-78.
- Cull, R., L. E. Davis, N. R. Lamoreaux, and J-L Rosenthal, (2006). Historical Financing of Small and Medium-Size Enterprises. *Journal of Banking and Finance*, Vol. 30, Issue 11, pp. 3017-3042.
- Cuñat, V., (2007). Trade Credit: Suppliers as Debt Collectors and Insurance Providers. *The Review of Financial Studies*, Vol. 20, No. 2, pp. 491-527.
- Curran, J., (1986). Bolton Fifteen Years on: A Review and Analysis of Small Business Research in Britain 1971-1986. Small Business Research Trust, London, pp. 1-72.
- Curran, J. and R. A. Blackburn, (2001). Researching the Small Enterprise. London: Sage publication. ISBN-10: 0761952950, ISBN-13: 9780761952954, pp. 1-192.
- Curran, J. and R. A. Blackburn, (1993). Ethnic Enterprise and the High Street Bank. A Survey of Ethnic Businesses in Two Localities Kingston University, London, Small Business Research Centre.
- Curran, J., R. A. Blackburn, and A. Woods, (1991). Exploring Enterprise Cultures: Small Service Sector Enterprise Owners and Their Views. Small Business Research Unit, Kingston University.

- Cyrnak, A. and T. Hannan (2003). Change in Non-Local Lending to Small Business. *Journal of Financial Service Research*, Vol. 24, No. 1, pp. 31-46.
- Czaja, R. and J. Blair, (2005). *Designing Surveys: A Guide to Decision and Procedures*. London: Sage, Information Research, Vol. 11 Issue 2, R206, pp. 1-320.
- Dailey, R. C., T. E. Reuschling, and R. F. De Mong, (1997). The Family Owned Business. Capital Funding. *American Journal of Small Business*, Vol. 22, pp. 30-39.
- Danos, P., D. I. Holt, and E.A. Imhoff, Jr., (1989). The Use of Accounting Information in Bank Lending Decisions. *Accounting Organisations and Society*, Vol. 14, No. 3, pp. 235-246.
- Danson, M. W., (1999). Debates and Reviews, Contributions of Novice, Portfolio and Serial Founders Located in Rural and Urban Areas. *Regional Studies*, Vol. 33, No.2, pp. 157-173.
- Das, P. K., (2004). Credit Rationing and Firm's Investment and Production Decisions. *International Review of Economics and Finance*, Vol. 13, pp. 87-114.
- Das, T. K. and B. S. Teng, (1998). Between Trust and Control: Developing Confidence in Partner Cooperation in Alliances. *Academic Management Review*, Vol. 23, No. 3, pp. 491-512.
- Dasgupta, P., (2000). Economic Progress and the Idea of Social Capital in *Social Capital: A Multifaceted Perspective*, P. Dasgupta and I. Seragilden, (eds.), Washington DC: World Bank, pp. 325-424.
- Dasgupta, P., (1998). Trust as a Commodity. In D. Gambetta (Ed), *Trust: Making and Breaking Cooperative Relations* (electronic edition, chapter 4): Department of Sociology, University of Oxford. Available at <http://www.sociology.ox.ac.uk/paper/dasgupta49-72.pdf>, pp. 49-72.
- Daumont, R., F. Legall, and F. Leroux, (2004). Banking in Sub-saharan Africa: What Went Wrong? IMF Working paper WP/04/55, pp. 1-49.
- Davidsson, P., (2004). *Researching Entrepreneurship*. Boston, MA: Springer. ISBN-10: 0387228381, ISBN-13: 9780387228389, pp. 1-218.

- Davidsson, P., (1995). Determinants of Entrepreneurial Intentions. Research in Entrepreneurship Conference, IX. Jonkoping International Business School, Jonkoping. Working Paper Series, No. 1, pp. 23-24.
- Davidsson, P. and B. Honig, (2003). The Role of Social and Human Capital among Nascent Entrepreneurs, *Journal of Business Venturing*, Vol. 18, No. 3, pp. 301-322.
- Davidsson, P. and J. Wiklund (2001). Levels of Analysis in Entrepreneurship Research: Current Research Practice and Suggestions for the Future. *Entrepreneurship Theory and Practice*, Vol. 25, pp. 81-100.
- Davidsson, P. and J. Wiklund, (2000). Conceptual and Empirical Challenges in the Study of Firm Growth. In D. Sexton and H. Landström (Eds). The Blackwell Handbook of Entrepreneurship. Oxford: Blackwell Business, pp. 26-44.
- Davila, A., G. Foster, and M. Gupta, (2003). Venture Capital Financing and the Growth Of Start-up Firms. *Journal of Business Venturing*, Vol. 18, pp. 689-708.
- De Medeiros, O. and C. Daher, (2004). Testing Static Trade-off Against Pecking Order Models of Capital Structure in Brazilian Firms. Working paper, Universidade de Brasilia. SSRN: <http://ssrn.com>, pp. 1-15.
- De Meza, D. and C. Southey, (1996). The Borrowers Curse: Optimism, Finance and Entrepreneurship. *Economic Journal*, Vol. 106, pp. 375-386.
- De Meza, D. and D. C. Webb, (2006). Credit Rationing: Something's Gotta Give. *Economica*, Vol. 73, pp. 563-578.
- De Meza, D. and D. C. Webb, (1987). Too Much Investment: A Problem of Asymmetric Information, *Quarterly Journal of Economics*, Vol. 102, pp. 281-292.
- Degryse, H., N. Masschelein, and J. Mitchell, (2005). SMEs and Banking Relationships: The Impact of Mergers. CEPR Working Paper, No. 5061, pp. 1-43.
- Degryse, H. and S. Ongena (2005). Distance, Lending Relationships, and Competition. *Journal of Finance*, Vol. 60, No.1, pp. 231-266.

- Degryse, H. and S. Ongena (2004). The impact of Technology and Regulation on the Geographical Scope of Banking. *Oxford Review of Economic Policy*, Vol. 20, No.4, pp. 571-590.
- Degryse, H. and S. Ongena, (2001), Bank Relationship. *Financial Management*, Spring 2001, pp. 9-34.
- Dei Ottati, G., (1994). Trust, Interlinking Transactions and Credit in the Industrial District. *Cambridge Journal of Economics*, Vol.18, pp. 529-546.
- Dejardin, M., (2000). Entrepreneurship and Economic Growth: An Obvious Conjunction? Namur, Belgium: University of Namur, pp. 1-17.
- Dell’Ariccia, G., (2001). Asymmetric Information and the Structure of the Banking Industry. *European Economic Review*, Vol. 45, pp. 1957-1980.
- Dell’Ariccia, G. and R. Marquez, (2004). Information and Bank Credit Allocation. *Journal of Financial Economics*, Vol. 72, pp. 185-215.
- Delmar, F., P. Davidsson, W. B. Gartner, (2003). Arriving at the High-Growth Firm. *Journal of Business Venturing*, Vol. 18, pp. 189-216.
- DeLuca, F., (1998). The Start-up. Introduction to Franchising Case Study: Subway Restaurants. Marina Del Ray, CA: The Young Entrepreneurs Network, Inc.
- Demirguc-Kunt, A. and V. Maksimovic, (1998). Law, Finance and Firm Growth. *Journal of Finance*, Vol. 53, No. 6, pp. 2107-2137
- Denis, D. J., (2004). Entrepreneurial Finance: An Overview of the Issues and Evidence. *Journal of Corporate Finance*, Vol. 10, pp. 301-326.
- Denscombe, M., (2007). The Good Research Guide for Small-scale Social Research Projects. McGraw-Hill International Publications, pp. 1-349.



- Denzin, N. K. and Y. S. Lincoln, (1994). *Handbook of Qualitative Research*. Thousand Oaks, CA: Sage Publications. Second Edition, ISBN-10: 0761915125, ISBN-13: 978076195126, pp. 1-1143.
- DeTienne, D. R. and C. S. Koberg, (2002). The Impact of Environmental and Organisational Factors on Discontinuous Innovation within High-tech Industries. *IEEE Transaction on Engineering Management*, Vol. 49, pp. 346-364.
- DeYoung, R., W. S. Frame, D. Glennon, D. P. McMillen, and P. Nigro, (2008a). Commercial Lending Distance and Historically Underserved Areas. *Journal of Economics and Business*, Vol. 60, pp. 149-164.
- DeYoung, R., D. Glennon, and P. Nigro, (2008b). Borrower-Lender Distance, Credit Scoring, and the Performance: Evidence from Informational-opaque Small Business borrowers. *Journal of Financial Intermediation*, Vol. 17, pp. 113-143.
- DeYoung, R., W. C. Hunter, and G.F. Udell, (2004). The Past, Present and Probable Future for Community Banks. *Journal of Financial Services Research*, Vol. 25, Issue (2/3), pp. 85-133.
- Diamond, D. W., (1991). Monitoring and Reputation: The Choice Between Bank Loan and Directly Placed Debt. *Journal of Political Economy*, Vol. 99, pp. 688-721.
- Diamond, D. W., (1989). Reputation Acquisition in Debt Markets. *Journal of Political Economy*, Vol. 97, pp. 828-860.
- Diamond, D. W., (1984). Financial Intermediation and Delegated Monitoring. *Review of Economic Studies*, Vol. 51, pp. 393-414.
- Dierickx, I. and K. Cool, (1989), Asset Stock Accumulation and Sustainability of Competitive Advantage, *Management Science*, pp. 35, pp.1504-1513.
- Dillman, D. A., (2000). *Mail and Internet Survey: The Tailored Design Method* (2<sup>nd</sup> ed). New York: John Wiley and Sons Publications. ISBN-10: 0471323543, ISBN-13: 9780471323549, pp. 1-480.

- Dimov, D. P. and D. A. Shepherd, (2005). Human Capital Theory and Venture Capital Firms: Exploring “home runs” and “strike outs”. *Journal of Business Venturing*, Vol. 20, pp. 1-21.
- Dollinger, M. J., (1995). *Entrepreneurship. Strategies and Resources*. Wellesley, MA: Irwin, Babson College, pp. 131-144.
- Dowla, A., (2006). In Credit We Trust: Building Social Capital by Grameen Bank in Bangladesh. *Journal of Social-Economics*, Vol. 35, Issue 1, pp. 102-122.
- Doz, Y. L, (1996). The evolution of cooperation in strategic alliance: Initial conditions or learning processes? *Strategic Management Journal*, Vol. 17, pp. 55-83.
- Dufey, G. and U. Hommel, (1999). Financing the German Mittelstand, in: WHU Koblenz-Otto Beisheim Graduate School of Management (Ed): *Structure and Dynamics of the German Mittelstand*, Springer/Heidelberg, pp.183-228.
- Dunkelberg, W. and A. Cooper, (1983). Financing the Start of a Small Enterprise in J. Hornadey et. al. (eds). *Frontiers of Entrepreneurship Research*, Wellesley: Babson College, pp. 369-381.
- Dunkelberg, W., J. Scott, and E. Cox, (1984). Small Business and the Value of Banker Customer Relationships. *Journal of Bank Research*, Vol. 14, No. 5, pp. 248-258.
- Durlauf, S., (2000). Econometric Analysis and the Study of Economic Growth: A Sceptical Perspective, in *Macroeconomics and the Real World*, R. Backhouse and A. Salanti, (eds.), Oxford: Oxford University Press, pp. 1-22.
- Dyer, J. H. and H. Singh, (1998). The Relational View: Cooperative Strategy and Sources of Interorganisational Comparative Advantage. *Academy of Management Review*, Vol. 23, pp. 660-679.
- Ebben, J. and A. Johnson, (2006). Bootstrapping in Small Firms: An Empirical Analysis of Change Overtime. *Journal of Business Venturing*, Vol. 21, pp. 851-865.

- Eccles, R. G. and D. B. Crane, (1988). *Doing Deals: Investment Banks at Work*. Boston, MA: Harvard Business School Press. ISBN-10: 0875841996, ISBN-13: 9780875841991, pp. 273.
- Ehrenfeld, T., (1993). B-School Bohemians, in: INC.COM, September 1993, <http://www.inc.com/magazine/19930901/3740.html>.
- Eisenhardt, M. K., (1989). Agency Theory: An Assessment and Review. *Academy of Management Review*, Vol. 14, No. 1, pp. 57.
- Ellett, L., M. Fleet , R. Jensen, M. Lim, L. Soceneantu, P. Wragg, R. Beresford, R. Mumby-Croft, M.N.K. Saundres and R. Smith, (2004). Initial Funding of Small Businesses – the mismatch between Actual and Perceived Personal Exposure. *Business Boffins Limited*, Oxford, UK, pp. 1-8.
- Elliehausen, G. E. and J. D. Wolken, (1993). The Demand for Trade Credit an Investigation of Motives for Trade Credit Use by Small Businesses. Board of Governors of the Federal Reserve System, Washington, D. C. 20551, pp. 1-19.
- Elsas, R. and J. Krahenen, (1998). Is Relationship Lending Special? Evidence from Credit-file Data in Germany. *Journal of Banking and Finance*, Vol. 22, pp. 1283-1316.
- Elyasiani, E. and L. G. Goldberg, (2004). Relationship Lending: A Survey of the Literature. *Journal of Economics and Business*, Vol. 56, Issue 4, pp. 315-330.
- European Commission, (2003). Observatory of European SME, SME and Access to Finance No. 2. Enterprise publications, pp. 1-55.
- European Commission, (2002). Highlights from the 2001 Survey Observatory of European SMEs No. 1, Brussel, Belgium. Enterprise Publications, pp. 1-29.
- European Private Equity and Venture Capital Association (EVCA) (2004). <http://www.evca.com>, pp. 1-5.

- Evans, D. and B. Jovanovic, (1989). An Estimated Model of Entrepreneurial Choice under Liquidity Constraints, *Journal of Political Economy*, pp. 97, No. 4, pp. 808-827.
- Evans, D. and L. Leighton, (1989). Some Empirical Aspects of Entrepreneurship. *American Economic Review*, Vol. 79, pp. 519-535.
- Fafchamps, M., (1996). The Enforcement of Commercial Contracts in Ghana, *World Development*, Vol. 24, pp. 427-448.
- Fafchamps, M. And B. Minten (2002). Returns to Social Network Capital Among Traders. *Oxford Economic Papers*, Vol. 54, No. 2, pp. 173-206.
- Fafchamps, M. and B. Minten, (1999). Relationships and Taders in Madagascar. *Journal of Development Studies*, Vol. 35, pp. 1- 35.
- Fagiolo, G. and A. Luzzi, (2006). Do Liquidity Constraints Matter in Explaining Firm Size and Growth? Some Evidence from the Italian Manufacturing Industry. *Industrial and Corporate Change*, Vol. 15, No. 1, pp. 1-39.
- Fahy, J., (2002). A Resource-Based Analysis of Sustainable Comparative Advantage in a Global Environment. *International Business Review*, Vol. 11, pp. 57-78.
- Fairlie, R. W. and B. Meyer, (1996). Ethnic and Racial Self-employment Differences and Possible Explanations. *Journal of Human Resources*, Vol. 35, pp. 757-793.
- Fama, E. F., (1985). What's Different about Banks? *Journal of Monetary Economics*, Vol. 15, pp. 29-39.
- Fama, E. F. and K. R. French, (2002). Testing Trade-off and Pecking Order Predictions About Dividends and Debts. *The Review of Financial Studies*, Vol. 15, No. 1, pp. 1-33.
- Felsenstein, D. and A. Fleischer, (2002). Small-Scale Entrepreneur Ship and Access to Capital in Peripheral Locations. An Empirical Analysis. *Growth and Change*, Vol. 33, pp. 196-215.

- Fernandez, R. M. and N. Weinberg, (1997). Sifting and Sorting: Personal Contacts and Hiring in Retail Bank. *American Sociological Review*, Vol. 62, pp. 883-902.
- Ferrary, M., (2003). Trust and Social Capital in the Regulation of Lending Activities. *The Journal of Socio-economic*, Vol. 31, pp. 673-695.
- Fiet, J.O., A. Piskounov, and V. Gustavsson, (2000). How to Decide, How to Search for Entrepreneurial Discoveries in Frontiers of Entrepreneurship Research, Ed. P. Reynolds, E. Autio, C.G. Brush, W.D. Bygrave, S. Manigart, H. J. Sapienza, and K. G. Shaver. Wellesley, MA: Babson College, 198, pp. 105-117.
- Findings Africa Region, (1994). Small Enterprise Finance under Liberalisation in Ghana. No. 26, pp. 1-5.
- Fioretti, G., (2005) Credit Rationing and Internal Ratings in the Face of Innovation and Uncertainty. Econpapers – [http: 129.3.20.41/eps/fin/papers/0504/0504021.pdf](http://129.3.20.41/eps/fin/papers/0504/0504021.pdf), pp. 1-22.
- Fischer, C., (2005). Bowling Alone: What's the Score? *Sociological Networks*, Vol. 27, pp. 55–67.
- Fletschner, D., (2008). A woman's Access to Credit: Does it Matter for Household Efficiency? *American Journal of Agricultural Economics*, Vol. 90, Issue 3, pp. 669-683.
- Fletschner, D., (2006). Rural Women's Access to Credit: Market Imperfections and Intrahousehold Dynamics. Evans School of Public Affairs, University of Washington, Seattle. Working Paper 2006-14, pp. 1-32.
- Fletschner, D. and M. Carter, (2008). Constructing and Reconstructing Gender: Reference Group Effects and Women's Demand for Entrepreneurial Capital. *Journal of Socio-Economics*, Vol. 37, No. 2, pp. 672-693.
- Florin, J. and W. Schultze, (2000). Social Capital and Fundability of High Potential New Ventures. Paper Presented at the Academy of Management Meeting, Toronto, Canada. August, 2000, pp. 1-8.

- Floyd, S.W. and B. Wooldridge, (1999). Knowledge Creation and Social Networks in Corporate Entrepreneurship: The Renewal of Organisation Capability. *Entrepreneurship Theory and Practice*, Vol. 23, No. 3, pp. 123-143.
- Foley, M. W. and B. Edwards, (1996). The paradox of civil society. *Journal of Democracy*, Vol. 7, No. 3, pp. 38-52.
- Foltz, J. D., (2004). Credit Market Access and Profitability in Tunisian Agriculture. *Agricultural Economics*, Vol. 30, pp. 229-240.
- Forbes, D., (2005). Are some Entrepreneurs more Overconfident than Others? *Journal of Business Venturing*, Vol. 20, pp. 623-640.
- Ford, E. S., (1998). Characteristics of Survey Participants with and without a Telephone: Findings from the Third National Health and Nutrition Examination Survey. *J. Clin. Epidemiol*, Vol. 51, pp. 55-60.
- Fowler, F. J. Jr., (1988). *Survey Research Methods* (Review Eds.). Newbury Park: Sage Publications, Inc, pp. 1-159.
- Frame, S., A. Srinivasna, L. Woosley, (2001). The Effect of Credit Scoring on Small-Business Lending. *Journal of Money, Credit and Banking*, Vol. 33, No. 3, pp. 813-825.
- Frank, M. Z. and V. K. Goyal, (2005). Tradeoff and Pecking Order Theories of Debt. Centre for Corporate Governance; Tuck School of Business of Dartmouth. Working Paper, pp. 1-88.
- Frank, M. Z. and V. K. Goyal, (2003). Testing the Pecking Order Theory of Capital Structure. *Journal of Financial Economics*, Vol. 67, pp. 217-248.
- Fraser, J. A., (2001). Money Hunt. INC, March 2001, pp. 49-63.
- Fraser, J. A., (1999). 20 Tips for Finding Money Now. INC, March, 1999, pp. 131-136.

- Fraser, D.R., B.E. Gup and J.W. Kolari, (1996). *Commercial Banking: The Management of Risk*, Thomson South-Western Second Edition. ISBN-10: 0324027184, ISBN-13: 978-03224027181, pp. 1-624.
- Freear, J., J. E. Sohl, and W. Wetzel, (2002). Angles on Angels: Financing Technology-Based Ventures. A Historical Perspective. *Venture Capital*, Vol. 4, No. 4, pp. 275-287.
- Freear, J., J. E. Sohl, and W. E. Wetzel, (1995). Who Bankrolls Software Entrepreneurs. In Bygrave, W. D., B.J. Bird, S. Birley, N. C. Churchill, M. G. Hay, R. H. Keeley, and W. E. Wetzel, Jr. (eds.), *Frontiers of Entrepreneurship Research*. Wellesley, MA: Babson College, Centre for Entrepreneurial Studies, pp. 172-186.
- Freear, J. and W. E. Wetzel, (1990). Who Bankrolls High-tech Entrepreneur? *Journal of Business Venturing*, Vol. 5, pp. 77-89.
- Freedman, P. L. and R. W. Click, (2006). Banks that Don't Lend? Unlocking Credit to Spur Growth in Developing Countries. *Development Policy Review*, Vol. 24, No. 3, pp. 279-302.
- Freel, M.S., (2007). Are Small Innovators Credit Rationed? *Small Business Economics*, Vol. 28, No. 1, pp. 23-35.
- Freel, M. S., (2005). Patterns of Innovation and Skills in Small Firms, *Technovation*, Vol. 25, pp. 123-134.
- Freel, M. S., (2000). Barriers to Product Innovation in Small Manufacturing Firms. *International Small Business Journal*, Vol. 18, No. 2, pp. 60-80.
- Freel, M. S., (1999). The Financing of Small Firm Product Innovation within the UK. *Technovation*, Vol. 19, pp. 707-719.
- Freixax, X. and J. Rochet, (1999). *Microeconomics of Banking*, Cambridge, Massachusetts: MIT Press, pp. 1-16.
- French, D., (2001). *The Case for Community Banking*. New Economics Foundation, London. ISBN-10: 1899407308, ISBN-13: 9781899407309, pp. 1-46.

- Fried, V. and R. D. Hisrich, (1988). Venture Capital Research: Past, Present and Future. *Entrepreneurship Theory and Practice*, Vol. 13, pp. 15–29.
- Frijs, C., T. Paulsson, and C. Karlsson, (2002). Entrepreneurship and Economic Growth: A Critical Review of Empirical and Theoretical Research. Östersund, Sweden: Institutet för Tillväxtpolitiska Studier.
- Fukuyama, F., (1999). Social Capital and Civil Society. Paper Presented at the Conferences on Second Generation Reforms IMF Headquarters, Washington, D. C. IMF Working Paper, WP/00/74, pp. 1-13.
- Fukuyama, F., (1997). Social Capital and the Modern Capitalist Economy: Creating a High Trust Workplace. *Stern Business Magazine*, Vol. 4, No. 1, pp. 1-10.
- Gabbay, S. M. and R. Th. A. J. Leenders, (1999). CSC: The Structure of Advantage and Disadvantage. In R. Th. A. J. Leenders and S. M. Gabbay (Eds.), *Corporate Social Capital and Liability*: Boston: Kluwer, pp. 1-14.
- Gaglio, C. M., (1997). Opportunity Identification: Review, Critique and Suggested Research Directions. In J.A. Kats (Eds.), *Advances in Entrepreneurship, Firm Emergences and Growth*, Vol. 3, Greenwich, CA: JAI Press, pp. 119-138.
- Gaglio, C. M. and J. A. Katz, (2001). The Psychological Basis of Opportunity Identification: Entrepreneurial Alertness, *Small Business Economics*, Vol. 16, pp. 95-111.
- Galbreath, J., (2005). Which Resources Matter the Most to Firm Success? An Exploratory Study of Resource-Based Theory. *Technovation*, Vol. 25, pp. 979-987.
- Gale, D. and M. Hellwig, (1984). Incentive-Compatible Contracts: the One-Period Problem. *Review of Economic Studies*, Vol. 52, No. 4, pp. 647-663.
- Galindo, A. and F. Schiantarelli, (2002). Credit Constraints in Latin America. An Overview of the Micro Evidence. Inter-American Development Bank. Research Network Working Paper, No. R-472, pp. 1-27.



- Ganesh-Kumar, A., K. Sen, and R. R. Valdya, (2001). Outward Orientation, Investment and Finance Constraint: A study of India Firms. *The Journal of Development Studies*, Vol. 37, No. 4, pp. 133-149.
- Gargiulo, M. and M. Bernassi, (1999). The Dark Side of Social Capital. In R. Th. A. J. Leenders and S. M. Gabbay (Eds.), *Corporate Social Capital and Liability*: pp. 298-322, Boston: Kluwer.
- Gartner, W. B., (2001). Is There an Elephant in Entrepreneurship? Blind Assumptions in Theory Development, *Entrepreneurship Theory and Practice*, Vol. 25, Issue 4, pp. 27-41.
- Gartner, W. B., (1990). What Are We Talking About when we Talk About Entrepreneurship? *Journal of Business Venturing*, Vol. 5, No. 1, pp. 15-28.
- Gartner, W. B., J. A. Starr and S. Bhat, (1999). Predicting New Venture Survival: An Analysis of Anatomy of a Start-up. Cases from Incorporation Magazine. *Journal of Business Venturing*, Vol. 14, Issue 2, pp. 215-232.
- Gay, L. R. (1996). *Education Research: Models for Analysis and Application*. Merrill Publications. ISBN-10: 0675086000, ISBN-13: 9780675086004, pp. 1-158.
- Gelos, G. R. and A. M. Werner, (2002). Financial liberalisation, Financial liberalisation, Credit Constraints Collateral: Investment in the Mexican Manufacturing Sector. *Journal Development Economics*, Vol. 67, pp. 1-27.
- Gibson, B., (1992). Financial Information for Decision Making: An Alternative Small Firm Perspective. *Journal of Small Business Finance*, Vol. 1, pp. 221-232.
- Gifford, S., (1997). Limited Attention and the Role of Venture Capitalists. *Journal of Business Venturing*, Vol. 12, pp. 459-482
- Gill, J. and P. Johnson, (1997). *Research Methods for Managers*, 2nd ed, Paul Chapman, London.
- Gill, J. and P. Johnson, (1991). *Research Methods for Managers*, Paul Chapman Publishing, Liverpool.

- Gilmore, A. and D. Carson, (1996). Integrative Qualitative Methods in a Service Context. *Marketing Intelligence and Planning* (Special Issue: Qualitative Market Research), Vol. 14, No. 6, pp. 21-26.
- Gimeno, J., T. Folta, A. Cooper, and C. Woo, (1997). Survival of the Fittest? Entrepreneurial Human Capital and the Persistence of Underperforming Firms. *Administrative Science Quarterly*, Vol. 42, pp. 750-783.
- Giudici, G. and S. Paleari, (2000). The Provision of Finance to Innovation: A Survey Conducted Among Italian Technology-based Small Firm. *Small Business Economics*, Vol. 14, pp. 37-53.
- Glaeser, E. L., D. I. Laibson, J. A. Scheinkman, and C. L. Souyver, (2000). Measuring Trust. *Quarterly Journal of Economics*, Vol. 115, pp. 811-846.
- Gompers, P. A., (1997). Ownership and Control in Entrepreneurial Firms: An Examination of Convertible Securities in Venture Capital Investments. Unpublished Manuscript, Harvard, University. Working Paper, pp. 9-28.
- Gompers, P. A., (1995). Optimal Investment, Monitoring, and the Staging of Venture Capital. *Journal of Finance*, Vol. 50, pp. 1461-1489.
- Good, D., (2000). Individuals, Interpersonal Relational and Trust. In D. Gambetta (Ed.), *Trust: Making and Breaking Cooperative Relations* (electronic ed., chapter3, pp. 31-48). Department of Sociology, University of Oxford. Available at <http://www.sociology.ox.ac.uk/paper/good.pdf>, pp. 31-48.
- Gorman, M. and W. A. Sahlman (1989). What Do Venture Capitalists Do? *Journal of Business Venturing*, Vol. 5, pp. 77-90.
- Goswami, S. and M. Mathew, (2005). Definition of Innovation Revisited: An Empirical Study of Indian Information Technology Industry. *International Journal of Innovation Management*, Vol. 9, No. 3, pp. 371-383
- Graham, J. and C. Harvey, (2001). The Theory and Practice of Corporate Finance: Evidence from the Field. *Journal of Financial Economics*, Vol. 60, pp. 187-243.

- Granovetter, M., (1985). Economic Action and Social Structure: The Problem of Embeddedness. *American Journal of Sociology*, Vol. 78, pp. 1360-1380.
- Grant, R. M., (2002). Contemporary Strategy Analysis, Concept Techniques, Applications, Fourth Edition, Blackwell Publishers, Oxford, England. ISBN-10: 0631231366, ISBN-13: 9780631231363, pp. 1-551.
- Gray K.R., Cooley W. and Lutabingwa, (1997). Small-scale Manufacturing in Kenya: Characteristics Problems and Sources of Finance. *Journal of Small Business Management*, Vol. 35, Issue 1, pp. 66-72.
- Green, A., (2003). Credit Guarantee Schemes for Small Enterprises. An Effective Instrument to Promote Private Sector-led Growth? United Nations Industrial Development Organisation, Small and Medium Enterprises Branch Programme Development and Technical Cooperation Division. SME Technical Working Papers Series No.10, pp. 1-30.
- Green, P. and T. Brown, (1997). Resource Needs and the Dynamic Capitalism Typology. *Journal of Business Venturing*, Vol. 12, No. 3, pp. 161-173.
- Greenbaum, S. I., G. Kanatas, and I. Venezia, (1989). Equilibrium Loan Pricing under the Bank-Client Relationship. *Journal of Banking and Finance*, Vol. 13, pp.221-235.
- Greene, P. G., (2000). Self-employment as an Economic Behaviour: An Analysis of Self-Employed Women's Human and Social Capital. *National Journal of Sociology*, Vol. 12, pp. 1-55.
- Gregory, B. T., M. W. Rutherford, S. Oswald and L. Gardiner, (2005). An Empirical Investigation of the Growth Cycle of Small Firm Financing. *Journal of Small Business Management*, Vol. 43, No. 34, pp. 382-393.
- Greve, A. and J. W. Salaff, (2003). Social Network and Entrepreneurship. *Entrepreneurship Theory and Practice*, Vol. 28, No. 1, pp. 1-22.
- Grossman, G. and C. Shapiro, (1984), Informative Advertising with Differentiated Products, *Review of Economic Studies*, Vol. 51, pp. 63-82.

- Guiso, L., (1998). High-Tech Firms and Credit Rationing. *Journal of Economic Behaviour and Organisation*, Vol. 35, pp. 39-59.
- Gulati, R., (1998). Alliances and Qualitative Methods in Management Research Network. *Strategic Management Journal*, Vol. 19, pp. 293-317.
- Gulati, R., (1995). Does Familiarity Breed Trust? The Implications of Repeated Ties for Contractual Choice in Alliances. *Academy of Management Journal*, Vol. 38, No. 1, pp. 85-112.
- Gulati, R. and M. Gargiulo, (1999). Where Inter-Organisational Networks Do Comes From? *American Journal of Sociology*, Vol. 104, No. 5, pp. 1439-1493.
- Hair, J. F. Jr., R. E. Anderson, R. L. Tathan, and W. C. Black, (1995). *Multivariate Data Analysis with Readings*, Fourth Edition, Englewood Cliffs, NJ: Prentice Hall College Division. ISBN-10: 0139133100, ISBN-13: 9780139133107, pp. 1-745.
- Hakim, C., (1989). Identifying Fast Growth Small Firms, *Employment Gazette*. January pp. 29-41.
- Hall, C., (2002). Profile of SME's and SME issues in APEC 1999-2000. APEC SME Ministerial Meeting, Mexico. African Pacific Economic Cooperation, Small and Medium Enterprises, World Scientific Publishing Singapore, Working Group, pp. 1-136.
- Hall, G., (1989). Lack of Finance as a Constraint on the Expansion of Innovatory Small Firms. In: Barber, J.L., Metcalfe, J.S., Porteous, M. (Eds.), *Barriers to Growth in Small Firms*. Routledge, London.
- Hall, P., (1995). Habitual Owners of Small Businesses: In F. Chittenden, M. Robertson and I. Marshall (Eds.), *Small Firms: Partnership for Growth*, pp. 217-230. London: Paul Chapman.
- Hall, R., (1989). The Management of Intellectual Assets: A New Corporate Perspective. *Journal of General Management*, Vol. 15, pp. 53-68.
- Hall, G. C., P. J. Hutchinson, and N. Michaelas, (2004). Determinants of the Capital Structure of European SMEs. *Journal of Business Finance and Accounting*, Vol. 31, No. 5 and 6, pp. 711-728.

Hallberg, K., (2000). A Market-Oriented Strategy for Small and Medium-Scale Enterprises, International Finance Corporation, The World Bank Washington, D. C. Discussion Paper, IFD No. 40, pp. 1-30.

Hamel, J., S. Dufour, and D. Fortin, (1993). Case Study Methods. Newbury Park, CA: Sage Publications. ISBN-10: 0803954166, ISBN-13: 9780803954168, pp. 1-88.

Hamel, G. and C. K. Prahalad, (1989). Strategic intent. *Harvard Business Review*, Vol. 67, pp. 63-76.

Hamilton, R. T. and M. A. Fox, (1998). The Financing Preferences of Small Firm Owners, *International Journal of Entrepreneurial Behaviour and Research*. Vol. 4, No. 3, pp. 239-248.

Hannan, T. H., (2003). Changes in Non-local Lending to Small Business. *Journal of Financial Services Research*, Vol. 24, pp. 31-46.

Hannan, M. and J. Freeman, (1984). Structured Inertia and Organisational Change. *American Sociological Review*, Vol. 49, pp. 149-164.

Hansen, E. L., (2001). Resource Acquisition as a Start-up Process: Initial Stocks of Social Capital and Organisational Founding's. <http://www.babson.edu/entrep/fer/IV/IVB/html/lv-B.html>, pp. 1-27.

Hansen, E. L., (1995). Entrepreneurial Network and New Organisation Growth. *Entrepreneurship Theory and Practice*, Vol. 19, No. 4, pp. 7-19.

Hansen, J., (2003). Banking in Developing Countries in the 1990s. World Bank Policy Operations and Policy Department of the Financial Sector Vice Presidency, Washington, D. C. World Bank. Research Working Paper Series 3168, pp. 1-40.

Hansen, M. T., (1998). Combining Network Centrality and Relocated Knowledge: Explaining Effective Knowledge Sharing in Multiunit Firms. Working paper. Harvard Business School, Boston.

- Harhöff, D., and T. Körting, (1998a). Lending Relationships in Germany: Empirical Evidence from Survey Data. *Journal of Banking and Finance*, Vol. 22, pp. 1317-1354.
- Harhöff, D., and T. Körting, (1998b). How Many Creditors Does it Take to Tango? Discussion Paper, Conference on industrial Structure and Input Markets, Centre for Economic Policy Research, Deutsche Forschungsgemeinschaft, Zentrum für Europäische Wirtschaftsforschung, Mannheim, Germany.
- Harper, M. H., (1984). *Small Business in the Third World*, Chichester, Wiley, pp.2.
- Harris, M. and A. Raviv, (1991). The Theory of Capital Structure. *Journal of Finance*, Vol. 46, No. 1, pp. 297-355.
- Harris, M. and A. Raviv, (1990). Capital Structure and the Information Role of Debt. *Journal of Finance*, Vol. 45, No. 2, pp. 321-349.
- Harrison, R. T., M. R. Dibben, C. M. Mason, (1997). The Role of Trust in the Informal Investor's Investment Decision: An Exploratory Analysis. *Entrepreneurship Theory and Practice*, pp. 63-81.
- Harrison, R. T. and C. M. Mason, (1996). Introduction: The Informal Venture Capital Market. In R. T. Harrison and C. M. Mason (eds) *Informal Venture Capital: Evaluating the Impact of Business Introduction Services* (Hemel Hempstead: Prentice Hall) pp. 3-26.
- Harrison, R.T. and C.M. Mason, (2000). Venture Capital Market Complementarities: The Links Between Business Angels and Venture Capital Funds in the United Kingdom. *Venture Capital*, Vol. 2, Issue 3, pp. 223-242.
- Harrison, A. E and M. S. McMillan, (2003). Does Direct Foreign Investment Affect Domestic Credit Constraints? *Journal of International Economics*, Vol. 61, pp. 73-100.
- Harrison, A. E., M. S. McMillan, and I. Love, (2004). Global Capital Flows and Financial Constraints. *Journal of Development Economics*, Vol. 75, pp. 269-301.

- Hart, O., (2001). Financial Contracting. National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA, 02138. Working Paper Series No. 8285, Harvard University. <http://www.nber.org/paper/w8285>.
- Hart, O., (1995). Firms, Contracts and Financial Structures. Clarendon Press: Oxford, pp. 1-45.
- Harvey, M. and R. Evans, (1995). Forgotten Sources of Capital for the Family- Owned Business. *Family Business Review*, Vol. 83, pp. 159-175.
- Harvie, C. and B. C. Lee, (2002). The Role of SMEs in National Economies in East Asia, Studies of Small and Medium-sized Enterprises in East Asia. Edward Elgar, Cheltenham, UK. Vol. 11, pp. 404.
- Hausman, A., (2005). Innovativeness Among Small Businesses: Theory and Propositions for Future Research, *Industrial Marketing Management*, Vol. 34, No. 8, pp. 773-782.
- Hauswald, R. and R. Marquez, (2006). Competition and Strategic Information Acquisition in Credit Markets. *Review of Financial Studies*. Vol. 19, No. 3. pp. 967-1000.
- Hauswald, R. and R. Marquez (2003). Information Technology and Financial Competition. *The Review of Financial Studies*, Vol. 16, No.3 pp. 921-948.
- Hayek, F. A., (1945). The Use of Knowledge in Society. *American Economic Review*, Vol. 35, pp. 529-530.
- Heino, H., (2006). Use of Borrowed Start-up Capital and Micro Enterprises in Mexico: Existence of Liquidity Constraints. *Portuguese Economic Journal*, Vol. 5, No. 1, pp. 1-30.
- Hellmann, T. and M. Puri, (2002). Venture Capital and the Professionalisation of Start-Up Firms: Empirical Evidence, *Journal of Finance*, Vol. 62, No. 1, pp. 169-197.

- Hellmann, T. and J. Stiglitz, (2000). Credit and Equity in Markets with Adverse Selection. *European Economic Review*, Vol. 44, Issue 2, pp. 281-304.
- Hernandez-Trillo, F., J. A. Pagan, and J. Paxton, (2005). Start-up Capital. Microenterprises and Technical efficiency in Mexico. *Review of Development Economics*, Vol. 9, No. 3, pp. 434-447.
- Herrera, A. M. and R. Minetti, (2007). Informed Finance and Technological Change Evidence from Credit Relationships. *Journal of Financial Economics*, Vol. 83, pp. 223-269.
- Heshmati, A., (2001). The Dynamics of Capital Structure: Evidence from Swedish Micro and Small Firms. *Research in Banking and Finance*, Vol. 2, pp. 119-241.
- Hewitt-Dundas, N., (2006). Resources and Capacity Constraints to Innovation in Small and Large Plants. *Small Business Economics*, Vol. 26, No. 3 pp. 257-277.
- Hills, G., G. Lumpkin, and R. P. Singh, (1997). Opportunity Recognition: Perceptions and Behaviours of Entrepreneurs. In P. Reynolds, P. Davidsson, W. Garter, and P. McDougall (Eds.), *Frontiers in Entrepreneurship Research 1997*, pp. 59-60. Wellesley, MA: Babson College, pp. 330-344.
- Hirschman, A. O, (1984). Against Parsimony: Three Easy Ways of Complication Some Categories of Economic Discourse, *American Economic Review*, Vol. 74, No. 2. pp. 89-96.
- Hitt, M. A., R. D. Ireland, H. Lee, (2000). Technological Learning Knowledge Management Firm Growth and Performance, An Introductory Essay. *Journal of Engineering and Technology Management*, Vol. 17, Issue ¾, pp. 231-246.
- Hoang, H. and N. Young, (2000). Social Embeddedness and Entrepreneurial Opportunity Recognition. More Evidence of Embeddedness. *Frontiers of Entrepreneurship Research*, Babson College, Wellesley, Working Paper, pp. 1-37.
- Hodgman, D. R., (1963). Commercial Bank Loan and Investment Policy, Bureau of Economic and Business Research, University of Illinois, Champaign, IL.



- Hodgman, D.R., (1960). Credit Risk and Credit Rationing, *Quarterly Journal of Economics*, Vol. 74, pp. 258-278.
- Hoff, K. and J. E. Stiglitz, (1993). Imperfect information and Rural Credit Markets: Puzzles and Policy Perspectives. In: Hoff, K., Braverman, A., Stiglitz, J. E. (Eds.), *The Economics of Rural Organization. Theory, Practice, and Policy*. Oxford University Press, Oxford, pp. 33–52.
- Hoff, K. and J. E. Stiglitz, (1990). Introduction: Imperfect Information and Rural Credit Markets- Puzzles and Policy Perspectives. *World Bank Economic Review*, Vol. 4, No. 3, pp. 235-250.
- Höhmann, H. H. and E. Malieva, (2005). The Concept of Trust: Some Notes on Definitions, Forms and Sources. In H. H. Höhmann and F. Welter (Eds), *Trust and Entrepreneurship: A West-East Perspective* pp. 7-23. Cheltenham: Edward Elgar.
- Holtmann, M., I. Ruhle, and W. Adalbert, (2000). SME Financing: Lessons from Microfinance SME/ISSUES New Idea from the World of Small and Medium, 1 November. *Enterprises*, Vol. 1, No.1.
- Holtz-Eakin, D., D. Joulfaian, H. Rosen, (1994). Entrepreneurial Decisions and Liquidity Constraints. *RAND Journal of Economics*, Vol. 25, pp. 334-347.
- Holtz-Eakin, D. and H. S. Rosen, (1999). Cash Constraints and Business Start-ups: Deutschmarks versus Dollars, CEPS Working Paper, No. 62.
- Hoshi, I., E. Balcerowicz and L. Balcerowicz, (2003). Barriers to Entry in Early Transition. A Comparative Study of Poland, Hungary, Czech Republic, Albania and Lithuania. NY, Kluwer Publishers. ISBN-13: 9780792374169, pp. 1-344.
- Hoshi, T., A.K. Kashyap, and D. Scharfstein, (1990a). Bank Monitoring and Investment: Evidence from the Changing Structure of Japanese Corporate Banking Relationships, in *Asymmetric Information, Investment and Capital Markets*, edited by R. Glenn Hubbard, University of Chicago Press, pp. 105-126.

- Hoshi, T., A.K. Kashyap, and D. Scharfstein, (1990b). The Role of Banks in Reducing the Costs of Financial Distress in Japan. *Journal of Financial Economics*, Vol. 27, pp. 67-88.
- Hosmer, L. T., (1995). Trust: The Connecting Link Between Organisational Theory and Philosophical Ethnics. *Academy of Management Review*, Vol. 20, No. 2, pp. 379-403.
- Hosmer, D. and S. Lemeshow, (2000). Applied Logistic Regression. 2<sup>nd</sup> New York, NY: John Wiley and Sons. ISBN-13: 9780471356325, pp. 1-392.
- Hotelling, H., (1929). Stability in competition. *Economic Journal*, Vol. 39, pp. 41- 45.
- Howorth, C. and A. Moro, (2006). Trust Within Entrepreneur-Bank Relationship: Insights from Italy. *Entrepreneurship Theory and Practice*, Vol. 30, No. 4, pp. 495-517.
- Howorth, C., M. J. Peel, and N. Wilson, (2003). An Examination of the Factors Associated with Banking Switching in the U.K. Small Firm Sector. *Small Business Economics*, Vol. 20, No. 4, pp. 305-318.
- Hsieh, N-C., (2005). Hybrid Mining Approach in the Design of Credit Scoring Models. *Expert Systems with Applications*, Vol. 28, Issues 4, pp. 655-665.
- Hsu, D. H., (2007). Experience Entrepreneurial Founders, Organisation Capital, and Venture Capital Funding. *Research Policy*, Vol. 36, pp. 722-741.
- Hsu, D., (2003). Serial Entrepreneur, Venture Capital Funding and Social Network Substitution, Working Paper.
- Hubbard, R. G., (1998). Capital-Market Imperfections and Investment. *Journal of Economic Literature*, Vol. 36, pp. 193-225.
- Hubbard, M. and S. Gregg, (2001). NextGen FICO Scores: More Predictive Power in Account Management, FairIssac Corporation.

- Hudson, J., (2006). Institutional Trust and Subjective Well-being Across the EU. *Kyklos*, Vol. 59, Issue 1, pp. 43-62.
- Hughes, A., (1997). Finance for SMEs: A U. K. Perspective. *Small Business Economics*, Vol. 9, No. 2, pp. 151-168.
- Hughes A. and D. J. Storey, (1994). Finance and the Small Firm. Routledge, (Editions) London and New York, ISBN-10: 0415100364, pp. 1-324.
- Hurt, O., (1995). Firms, Contracts and Financial Structure Clarendon Press: Oxford.
- Hussey, J. and R. Hussey, (1997). Business Research: A practical Guide for Undergraduate and Postgraduate Students, Palgrave Macmillan Press, London. ISBN-10: 033360704X, ISBN-13: 9780333607046, pp. 1-368.
- Hutchison, R. W., (1995). The Capital Structure and Investment Decision of the Small Owner-Manager Firm. Some Exploratory Issues. *Small Business Economics*, Vol. 7, pp. 231-239.
- Huyghebaert, N., (2003). The Capital Structure of Business Start-ups: Policy Implications. *Journal of Economics and Management*, Vol. 48, No. 1, pp. 1-24.
- Huyghebaert, N., (2001). The Capital Structure of Business Start-ups: Determinants of Initial Financial Structure. *Revue Bancaire et Financière*, Vol. 2, pp. 84-88.
- Huyghebaert, N and L. M. Van de Gucht, (2007). The Determinants of Financial Structures: New Insights From Business Start-ups. *European Financial Management*, Vol. 13, No. 1, pp. 101-133.
- Ikhide, S., (2003). Was There a Credit Crunch in Namibia Between 1996-2000? *Journal of Applied Economics*, Vol. 6, No. 2, pp. 269-290.
- Inderst, R. and H. M. Mueller, (2007). A Lender- Based Theory of Collateral. *Journal of Financial Economics*, Vol. 84, pp. 826-859.

- Inkpen, A. C. and E. W. K. Tsang, (2005). Social Capital, Networks and Knowledge Transfer. *Academy of Management Review*, Vol. 30, No. 1, pp. 146-165.
- Institute of Statistical Social and Economic Research (ISSER) Report, (2005). The State of the Ghanaian Economy in 2004, Accra. University of Ghana Press, pp. 1-85.
- International Finance Corporation (IFC), (2000). IFC SME Financing Needs and Supply Study. Compilation of Findings Final Report Submitted by a Consortium of NEI BV/Unit Financial Advisory Services Rabobank International Advisory Services, Rotterdam.
- Isaksson, A. and C. Wihlborg, (2002). Financial Constraints on Kenyan Manufacturing, in Structure and Performance of Manufacturing in Kenya, (Ed). By A. Bigsten and P. Kimuyu, Basingstoke: Palgrave, pp. 92-115.
- Itami, H. and T. Numagami, (1992). Dynamic Interaction Between Strategy and Technology. *Strategic Management Journal*, Vol. 13, Special Issues, pp. 119-135.
- Jääskeläinen, M., (2000). Entrepreneurship and Economic Growth. Helsinki: Institute of Strategy and International Business.
- Jack, S. L., (2005). The Role, Use and and Activation of strong and Weak Network Ties: A Qualitative Analysis. *Journal of Management Studies*, Vol. 42, Issue 6, pp. 1233-1259.
- Jaffee, D. and F. Modigliani, (1969). A Theory and Test of Credit Rationing, *American Economic Review*, Vol. 59, No. 5, pp. 850-872.
- Jaffee, D. and T. Russell, (1976). Imperfect Information, Uncertainty, and Credit Rationing, *Quarterly Journal of Economics*, Vol. 90, No. 4, pp. 651-666.
- Jalan, J. and M. Ravallion, (1999). Are the Poor Less Well Insured? Evidence on Vulnerability to Income Risk in Rural China. *Journal of Comparative Economics*, Vol. 26, pp. 338-357.

- James, C. and P. Wier, (1990). Borrowing Relationships, Intermediation and the Cost of Issuing Public Securities. *Journal of Financial Economics*, Vol. 28, pp. 149-171.
- Jappelli, T., (1990). Who is Credit Constrained in the U. S. Economy? *The Quarterly Journal of Economics*, Vol. 105, No. 1, pp. 219-234.
- Jappelli, T. and M. Pagano, (2001). Information Sharing in Credit Markets: International Evidence. In M. Pagano, editor. *Defusing Default: Incentives and Institutions*. Washington D. C. United States: Inter-American Development Bank/John Hopkins University Press, pp. 1-35.
- Jappelli, T. and M. Pagano, (2000). Information Sharing in Credit Market: A Survey. Centre for Studies in Economic and Finance (CSEF). University of Salerno, Working Paper, No. 36, pp. 1-25.
- Jappelli, T., J.-S. Pischke, and N. S. Souleles, (1998). Testing for Liquidity Constraints in Euler Equations with Complementary Data Sources. Speech presented by the President and Fellows of Harvard College and the Massachusetts Institute of Technology, pp. 251-262.
- Jarvis, R., (2000). Finance and the Small Firm. In S. Carter, *Practice and Policy*, FT Prentice Hall, London, pp. 337-353.
- Jay, L. and M. Schaper, (2003). Which Advisers do Micro-Firms Use? Some Australian Evidence. *Journal of Small Business and Enterprise Development*, Vol. 10, Issue 8, No. 2, pp. 136-148.
- Jefferson, G. H., B. Huamao, G. Xiaojing, and Y. Xiaoyun, (2006). Research and Development Performance in Chinese Industry. *Economics of Innovation and New Technology*, Vol. 15, pp. 345-366.
- Jensen, J. B. And R. H. McGuckin, (1997). Firm Performance and Evolution Empirical Regularities in the US Microdata. *Industrial and Corporate Change*, Vol. 6, No. 1, pp. 25-47.
- Jensen, M. C. and W. Meckling, (1976). The Theory of the Firm: Managerial Behaviour, Agency Costs and Ownership Structuring, *Journal of Financial Economics*, Vol. 3, pp. 305-360.

- Jenssen, J. I., (1999). Entrepreneurial Networks. A Study of the Impact of Network and Resource Access on the Start-up of New Organizations. Ph.D. thesis, Norges Handelshøyskole, Bergen, Norway, pp. 1-320.
- Jenssen, J. I. And H. F. Koenig, (2002). The Effect of Social Networks on Resource Access and Business Start-ups. *European Planning Studies*, Vol. 10, No. 8, pp. 1039-1046.
- Jimenez, G. and J. Saurina, (2003). Collateral, Type of Lender and Relationship Banking as Determinants of Credit Risk. Bank of Spain, Directorate-General of Banking Regulation, pp. 1-30.
- Johannisson, B., M. Ramirez-Pasillas, and G. Karlsson, (2002). The Institutional Embeddedness of Local Inter-Firm Networks: Leverage for Business Creation. *Entrepreneurship and Regional Development*, Vol. 14, pp. 297-315.
- Johansson, E., (2000). Self-Employment and Liquidity Constraints Evidence from Finland. *The Scandinavian Journal of Economics*, Vol. 102, No. 1, pp. 123-134.
- Johns, B. L, W. C. Dunlop, and W. J. Sheenan, (1989). Small Business in Australia: Problems and Prospects, Third Edition, Sydney: Alder and Urwin, pp. 1-25.
- Johnson, S., R. Lindley, and C. Boulakis, (1998). An Exploratory Time Series Analysis of Self Employment in Great Britain. Project report, DE Programme, Institute for Employment Research, University of Warwick, pp. 1-18.
- Jones, G. R. and J. M. George, (1998). The Experience and Evolution of Trust: Implications for Cooperation and Teamwork. *Academy of Management Review*, Vol. 23, pp. 531-546.
- Jones, S., (1985). Depth Interviewing in Walker, R. L. (Ed.), Applied Qualitative Research Gower, Aldershot, pp. 45-55.
- Jones, K., (1996). Trust as an Affective Attitude. *Ethics*, Vol. 107, pp. 4-25.
- Jordan, J., J. Lowe, and P. Taylor, (1998). Strategy and Financial Policy in UK Small Firms. *Journal of Business Finance and Accounting*, Vol. 25, No. 1, pp. 1-27.

- Kadushin, C., (2004). Too Much Investment in Social Capital? *Sociological Networks* Vol. 6, pp. 75–90.
- Kaish, S. and B. Gilad (1991). Characteristics of Opportunities Search of Entrepreneurs versus Executives: Sources, Interest, General Alertness. *Journal of Business Venturing*, Vol. 6, pp. 45-61.
- Kano, M., H. Uchida, G. F. Udell, and W. Watanabe, (2006). Information Verifiability, Bank Organisation, Bank Competition and Bank-Borrower Relationship. RIETI Discussion Paper Series, 06-E-003, pp. 1-33.
- Kaplan, S. N. and P. Strömberg (2001). Venture Capitalists as Principals: Contracting, Screening and Monitoring. *American Economic Review*, Vol. 91, pp. 426-430.
- Kaplowitz, M. D., T. D. Hadlock, and R. Levine, (2004). A Comparison of Web and Mail Survey Response Rates. *Public Opinion Quarterly*, Vol. 68, No. 1, pp. 94-101.
- Kareken, J. H., (1957). Lender's Preferences, Credit Rationing, and the Effectiveness of Monetary Policy. *Review of Economics and Statistics*, Vol.39, pp. 292-302.
- Kashuliza, A. K. and S. K. Kydd (1996). Determinants of Bank Credit Access for Small Holder Farmers in Tanzania: A Discriminate Analysis Application, *Savings and Development*, No. 3, pp. 285-297.
- Kashyap, A. K., R. Rajan, and J. C. Stein, (2002). Bank as Liquidity Providers: An Explanation for the Co-existence of Lending and Deposit-Taking. *The Journal of Finance*, Vol. 57, No. 1, pp. 33-73.
- Kay, J., (1993). The Structure of Strategy. *Business Strategy Review*, Vol. 4, pp. 17-37.
- Krishnan, R., X. Martin and N. G. Noorderhaven, (2006). When Does Trust Matter Alliance Performance? *Academy of Management Journal*, Vol. 49, No. 5, pp. 894-917.

- Kumar, K. and I. Becerra-Fernandez, (2007). Interaction Technology: Speech Act Based Information Tehnology Support for Building Collaborative Relationships and Trust. *Decision Support Systems*, Vol. 43, Issue 2, pp. 584-606.
- Kumar, K., R. Rajan, L. Zingales, (1999). What Determines Firm Size? NBER Working Paper, No.7208, pp. 1-53.
- Kunze, R.J., (1990). Nothing Ventured: The Perils and Payoffs of the Great American. *Venture Capital Game*, New York, Harper Collins.
- Kuratko, D., J. Hornsby, and D. Naffziger, (1997). An Examination of Owner's Goals in Sustaining Entrepreneurship. *Journal of Small Business Management*, Vol. 35, pp. 24-33.
- Kwast, M. L., M. Starr-McCluer, and J. D. Wolken, (1997). Market Definition and the Analysis of Antitrust in Banking. *The Antitrust Bulletin*, pp. 973-995.
- Kayanula, D., and P. Quartey (2000). The Policy Environment for Promoting Small and Medium Enterprises in Ghana and Malawi. Institute of Development Policy Management (IDPM), University of Manchester. *Finance and Development Research Programme Working Paper Series 15*, pp. 1-23.
- Kutsuna, K. and Y. Honjo, (2006). Start-up Financing Choice and Post-entry Performance. Graduate School of Business Administration, Kobe University, Aokko Kobe Japan, Discussion Paper Series, pp. 1-32.
- Keane, M. P. and K. I. Wolpin, (2001). The Effect of Parental Transfer and Borrowing Constraints on Education Attainment. *International Economic Review*, Vol. 42, Issue 4, pp. 1051-1103.
- Keasey, K. and R. Watson, (2000). Interest Rate Premia on UK Small Firm Bank Borrowings: A Research Note. *Journal of Business Finance and Accounting*, Vol. 27, No. 1 and 2, pp. O306-686X.
- Keeton, W. R., (1995). Multi-office Bank Lending to Small Businesses: Some New Evidence. Federal Reserve Bank of Kansas City Economic Review, Second Quarter, pp. 45-57.



- Kelly, P. and M. Hay, (2000). Deal Makers: Reputation Attracts Quality. *Venture Capital*, Vol. 2, pp. 193-202.
- Kempf, A. M. and P. L. Remington, (2007). New Challenges for Telephone Survey Research in the Twenty-First Century. *Annual Review of Public Health*, Vol. 28, pp. 113-126.
- Kempson, E. and T. Jones, (2000). Banking without Branches. British Bankers Association, London, pp. 1-2.
- Kennedy, R. and S. Hobohm, (1999). Capacity Building for Private Sector Development In Africa. UNIDO: PSD Technical Working Paper No. 3, pp. 1-34.
- Kevane, M., (2004). Women and Development in Africa: How Gender Works. Boulder, CO: Lynne Rienner Publishers. ISBN-10: 1588262383, ISBN-13: 9781588262387, pp. 1-244.
- Kilkenny, M., L. Nalbarte, and T. Besser, (1999). Reciprocated Community Support and Small Town-Small Business Success. *Entrepreneurship and Regional Development*, Vol. 11, pp. 231-246.
- Kirzner, I. M. (1973), Competition and Entrepreneurship, Chicago: University of Chicago press. ISBN-13: 9780226437767, pp. 1-256.
- Kish, L., (1965). Survey Sampling. New York: John Wiley and Sons, Inc, pp. 1-643.
- Kitcher, P., (1993). The Evolution of Human Altruism. *Journal of Philosophy*, Vol. 90, No. 10, pp. 497-516.
- Knight, F., (1957). Risks, Uncertainty and Profit. New York: Kelly and Millman, pp. 1-375.
- Kochar, A., (1997). An Empirical Investigation of Rationing Constraints in Rural Credit Markets in India. *Journal of Development Economics*, Vol. 53, pp. 339-371.

- Kohtamaki, M., (2003). The Nature of Trust in Inter-Organisational Relationships. In Search of Dimensions of Trust. An Unpublished Licentiate Thesis. Department of Management., Vaasa: University of Vaasa.
- Kollmann, T., (2004). Risikomanagement fur Business Angels. *Venture Capital Magazine*. ISBN-13: 9783938338001, pp. 1-214.
- Kolvereid, L., and Bullvg, E. (1993). Novices Versus Habitual Entrepreneurs, An Exploratory Investigation. In S. Birley, I.C. MacMillan, and S. Subrammaany, (Eds,), *Entrepreneurship research: Global perspectives*, Amsterdam: Kluwer and Associates.
- Kolvereid, L., S. Shane, L.J. Starr, P. Westhead, and E. Bullvg, (1991). A three country survey of novices and experienced entrepreneurs, *Proceedings of the 21<sup>st</sup> European Small Business Seminar*, September 18-20, Barcelona.
- Kon, Y. and D. J. Storey, (2003). A Theory of Discourage Borrowers. *Small Business Economics*, Vol. 21, pp. 37-49.
- Korajczyk, R. A. and A. Levy, (2003). Capital Structure Choice: Macroeconomic Conditions and Financial Constraints. *Journal of Financial Economics*, Vol. 68, pp. 75-109.
- Korayczyk, R. A., .D. Lucas, and R. McDonald, (1991). The Effects of Information Releases on the Pricing and Timing of Equity Issues, *Review of Financial Studies*, Vol. 4, pp. 685-708.
- Kotey, B. (1999), Debt Financing and Factors Internal to the Business. *International Small Business Journal*, Vol. 17, No. 3, pp. 11-29.
- Kotkin, J., (1984). Why Smart Companies are Saying no to Venture Capital. *Inc* 6, pp. 65-75.
- Kourilsky, M. L., (1995). Entrepreneurship Education: Opportunity in Search of Curriculum. *Business Education Forum*, Vol. 50, No. 10, pp. 11-15.

- Kramer, R. M., (1999). Trust and Distrust in Organisations: Emerging Perspective, Enduring Questions. *Annual Review of Psychology*, Vol. 50, pp. 569-598.
- Kraus, A. and R. H. Litzenberger, (1973). A State-Preference Model of Optimal Financial Leverage. *Journal of Finance*, Vol. 28, pp. 911-922.
- La Porta, R., F. Lopez de Silares, A. Shleifer and R. Vishny, (1998). Law and Finance, *Journal of Political Economic*, Vol. 106, pp. 1113-1155.
- Lall, S., (1992). Technological Capabilities and Industrialisation. *World Development*, Vol.20 Issue 2, pp. 165-186.
- Landstrom, H., (1992). The Relationship Between Private Investors and Small Firms: An Agency Perspective, *Entrepreneurship and Regional Development*, Vol. 9, pp. 199-223.
- Landstrom, H. and J. Winborg, (1997). Financial Bootstrapping in Small Business – A Resource-Based View on Small Business Finance. In Bygrave, W. D., N. M. Carter, P. Davidsson, W. B. Gartner, C.M. Mason, P. P. McDougall, (eds.). *Frontiers of Entrepreneurship Research*. Wellesley, MA: Babson College, Centre for Entrepreneurial Studies, pp. 471- 485.
- Larson, A., (1992). Network Dyads in Entrepreneurial Setting: A Study of the Governance of Exchange Processes. *Administrative Science Quarterly*, Vol. 37, pp. 76-104.
- Lau, D., (1999). No Rest for the Weary VC. *Venture Capital*, 1, pp. 52–54.
- Lazear, E., (2005). Entrepreneurship, *Journal of Labour Economics*, Vol. 23, pp. 649-680.
- Leana, C. R. and H. J. Van Buren, (1999). Organizational Social Capital and Employment Practices. *Academy of Management Review*, Vol. 24, pp. 538-555.
- Lederer, P. and A. P. Hurter (1986). Competition of Firms, Discriminatory Pricing and Location. *Econometrica*, Vol. 54, pp. 623-640.

- Leeth, J. D. and J. A. Scott, (1989). The Incidence of Secured Debt: Evidence from the Small Business Community. *Journal of Financial and Quantitative Analysis*, Vol. 24, pp. 379-394.
- Lehmann, E. and D. Neuberger, (2001). Do Lending Relationships Matter? Evidence from Banking Survey Data in Germany. *Journal of Economic Behaviour and Organisation*, Vol. 45, Issue 4, pp. 339-359.
- Lepak, D. P. and S. A. Snell, (1999). The Human Resource Architecture: Toward a Theory of Human Capital Allocation and Development. *Academy of Management Review*, Vol. 24, pp.31-48.
- Lerner, J., (2002). When Bureaucrats meet Entrepreneurs. The Design of Effective Public Venture Capital Programmes. *Economic Journal*, Vol. 112 pp. F73-F84.
- Lesser, E. L., (2000). Leveraging Social Capital in Organisations. In E.L. Lesser (Ed.), *Knowledge and Social Capital: Foundations and Applications*: Boston: Butterworth-Heinemann, pp. 3-16.
- Levenson, A. R. and K. L. Willard, (2000). Do Firms Get the Financing They Want? Measuring Credit Rationing Experienced by Small Businesses in the U. S. *Small Business Economics*, Vol. 4, pp. 83-94.
- Levine, R., N. Loayza, and T. Beck, (2000). Financial Intermediation and Growth: Causality and Causes. *Journal of Monetary Economics*, Vol. 46, pp. 31-77.
- Levitsky, J., (1997) Credit Guarantee Schemes for SMEs – An International Review', *Small Enterprise Development*, Vol. 8, No. 2, pp. 4-17.
- Levitsky, J., (1989). *Microenterprises in Developing Countries*, London, ITP, 1989, pp. 20.
- Levitsky, J. and R. N. Prasad (1987). Credit Guarantee Schemes for Small and Medium Enterprises. World Bank Technical Paper No. 58. Industry and Finance Series. Washington, D. C. The World Bank, pp. 1-91.

- Levy, B., (1993). Obstacles to Developing Indigenous Small and Medium Enterprises: An Empirical Assessment. *World Bank Economic Review* 7, Vol. 7 No. 1: 65-83.
- Lewicki, R. J., D. J. McIlister, R.J. Bies, (1998). Trust and Distrust: New Relationship and Realities. *Academy of Management Review*, Vol. 23, No. 2, pp. 438-458.
- Lewicki, R. J., C. Wiethoff, and E. C. Tomlinson, (2005). What is the Role of Trust in Organisational Justice? Handbook of Organisational Justice, edited by Jerald Greenberg and Jason Colquitt. Published by Routledge, 2005, ISBN-10: 08058442039, ISBN-13: 9780805842036, pp. 247-272.
- Lewis, J. and A. Weigert, (1985). Trust as a Social Reality. *Social Forces*, Vol. 63, No. 4, pp. 967-985.
- Liao, J. and H. Welsch, (2003). Social Capital and Entrepreneurial Growth Aspiration: A Comparison of Technology and Non-technology-based Nascent Entrepreneurs. *Journal of High Technology Management Research*, Vol. 14, pp. 149-170.
- Liberti, J. M., (2005). How does Organisational Form Matter? Chicago IL, Kellogg, School of Management, Northwestern, pp. 1-47.
- Liedholm, C., (2002). Small Firm Dynamics: Evidence from Africa and Latin America. *Small Business Economics*, Vol. 18, Issue, (1-3), pp. 227-242.
- Liedholm, C., (1991). Small and Micro Enterprise Dynamics and Evolving Role of Finance, Paper Presented at the Conference on Small and Micro Enterprise Promotion in a Changing Policy Environment: A special Focus on Africa, The Hague, 30 September – 2 October.
- Liedholm, C., (1989). Small Scale Enterprise Dynamics and the Evolving Role of Informal Finance, Paper Presented at the Seminar on Informal Financial Markets in Development, Washington, D. C. 18-20 October.
- Liedholm, C. and D. C. Mead, (1999). Small Enterprises and Economic Development. The Dynamics of Micro and Small Enterprises. London/New York: Routledge. ISBN-10: 0415193516, ISBN-13: 9780415193511, pp. 1-130.

- Liedholm, C. and D. C. Mead, (1987). *Small Scale Industries in Developing Countries: Empirical Evidence and Policy Implications*. International Development paper No. 9, Department of Agricultural Economics. Michigan State University Lansing, MI, USA, pp. 1-152.
- Lin, N., (2002). *Social Capital: A Theory of Social Structure and Action*. Cambridge University Press, ISBN 052152167X, 9780521521673, pp. 1-292.
- Little, I. M. D., (1988). *Small Manufacturing Enterprises in Developing Countries*, *The World Bank Economic Review*, Vol. 1, No. 2, pp. 205.
- Lochner, L. and A. Monge-Naranjo, (2002). *Human Capital Formation with Endogenous Credit Constraints*. NBER Working Paper Series, No. 8815, Cambridge, MA, 02138. <http://www.nber.org/paper/w8815>, pp. 1-46.
- Long, W. and W. E. McMullen, (1984). *Mapping the New Venture Opportunity Identification Process*. In J.A. Hornaday, F.A. Tarpley, J.A. Timmons, and K. H. Vesper (eds). *Frontiers of Entrepreneurship Research*, pp. 567–591. Wellesley, MA: Babson College.
- Longhofer, S. D. and J. A. C. Santos, (2000). *The Importance of Bank Seniority for Relationship Lending*. *Journal of Financial Intermediation*, Vol. 9, pp. 57-89.
- Lord, R. G. And K. J. Maher, (1990). *Alternative Information-Processing Model and Their Implications for Theory, Research, and Practice*. *Academy of Management Review*, 15, pp. 9-28
- Loury, G., (1987). *Why Should We Care About Group Inequality?* *Social Philosophy and Policy*, Vol. 5, pp. 249-271.
- Loury, G. C., (1977). *A Dynamic Theory of Racial Income Differences*. In P. A. Wallace and A. M. LaMonde (Eds.), *Women Minorities and Employment Discrimination*: Lexington, MA: Lexington Books, pp. 153-186.
- Love, I., (2003). *Financial Development and Financing Constant: International Evidence from the Structural Investment Model*. *Review of Financial Studies*, Vol. 16, pp. 765-791.

- Low, M. B. and I. C. MacMillan, (1988). Entrepreneurship: Past Research and Future Challenge. *Journal of Management*, Vol. 14 No. 2, pp. 139-151.
- Luetkenhorst, W., (2004). Corporate Social Responsibility and the Development Agenda: The Case for Actively Involving SMEs, *Inter-economics*. Hamburg: Vol. 39, Issue 3, pp.157-167.
- Luhmann, N., (1988). Familiarity, Confidence and Trust: Problems and Alternatives. In D. Gambetta (Ed.), *Trust: Making and Breaking Cooperative Relationships*. New York: Basil Blackwell. pp. 94-107.
- Luhmann, N., (2000). Familiarity, Confidence, Trust: Problems and Alternatives in Gambetta, Diego (ed.) *Trust: Making and Breaking Cooperative Relations*, Electronic Edition. Department of Sociology, University of Oxford, Chapter 6, pp. 94-107, [http://www.sociology.ox.ac.uk/papers/luhmann 94-107.pdf](http://www.sociology.ox.ac.uk/papers/luhmann%2094-107.pdf).
- Lukacs, E., (2005). The Economic Role of SMEs in World Economy especially in Europe. *European Integration Studies*, Miskolc, Vol.4. No.1 pp. 3-12.
- Macaulay, S., (1963). Non-contractual Relationship in Business: A Preliminary Study. *American Sociological Review*, Vol. 28, No. 1, pp. 55-67.
- Machauer, A. and M. Weber, (2000). Number of Bank Relationships: An Indicator of Competition, Borrower Quality or Just Size. Centre for Financial Studies. Working Paper No. 2000/06, pp. 1-27.
- MacMillan I. C. (1986). To Really Learn About Entrepreneurship, Let's Study Habitual Entrepreneurs. *Journal of Business Venturing*, Vol.1, pp.241-243.
- Maitland, I., (1997). Virtuous Markets: The Market as School of the Virtues. *Business Ethics Quarterly*, Vol. 7, pp. 17-18.
- Malhotra, M., Y. Chen, A. Criscuolo, Q. Fan, I. I. Hamel, and Y. Savchenko, (2006). Expanding access to finance: Good practices and policies for Micro, Small and Medium Enterprises. World Bank Institution, Washington, D. C, pp. 1-79.

- Malhotra, R. and D. K. Malhotra, (2003). Evaluation Consumer Loans Using Neutral Networks. *The International Journal of Management Science*, Vol. 31, pp. 83-96.
- Mambula, C., (2002). Perceptions of SME Growth Constraints in Nigeria. *Journal of Small Business Management*, Vol. 40, No. 1, pp. 58-65.
- Manigart, S. and C. Struyf, (1997). Financing High Technology Start-ups in Belgium: An Explorative Study. *Small Business Economics*, Vol. 9, No. 2, pp. 125-135.
- Manove, M., A. J. Padilla, and M. Pagano, (2001). Collateral versus Project Screening: A Model of Lazy Banks. *The RAND Journal of Economics*, Vol. 32, No. 4, pp. 726-744.
- Manski, C., (2000). Economic Analysis of Social Interaction. *Journal of Economic Perspectives*, Vol. 14, pp. 114-136.
- Manuh, G. and R. Brown, (1987). Resources for the Development of Entrepreneurs. London: Commonwealth Secretariat, pp. 69-78.
- March, J. G., (1994). A Primer on Decision Making: How Decisions Happen. New York: Free Press. ISBN-10:0029200350, ISBN-13: 9780029200353, pp. 1-289.
- Marlow, S. and D. Patton, (2005). All Credit to Men? Entrepreneurship, Finance and Gender. *Entrepreneurship Theory and Practice*, Vol. 29, Issue 6, pp. 717-735.
- Martin, R., C. Berudt, B. Klagge, P. Sunley, S. Herten, (2003). Regional Venture Capitalism Policy UK and Germany compared. Anglo-German Foundation for the Study of Industrial Society.
- Martin, R., P. Sunley, and D. Turner, (2002). Taking Risks in Regions: The Geographical Anatomy of Europe's Emergent Venture Capital Market. *Journal of Economic Geography*, Vol. 2, pp. 121-150.
- Marvel, M. R. and G. T. Lumpkin, (2007). Technology Entrepreneurs' Human Capital and its Effects on Innovation Radicalness. *Entrepreneurship Theory and Practice*, Vol. 31, pp. 807-828.



- Mason, C. M. and R. T. Harrison, (2004). Improving Access to Early Stages Venture Capital in Regional Economies: A New Approach to Investment Readiness, *Local Economy*, Vol. 19, No. 2, pp. 159-173.
- Mason, C. M. and R. T. Harrison, (2002). The Geography of Venture Capital Investment in the UK. *Transactions of the Institute of British Geographers*, Vol. 27, Issue 4, pp. 427-451.
- Mason, C. M. and R. T. Harrison, (1999). Venture Capital: Rationale, Aims, and Scope. *Venture Capital*, Vol. 1, pp. 1-46.
- Mason, C. M. and R. T. Harrison, (1996). Information Venture Capital: A Study of the Investment Process the Post-Investment Experience and Investment Performance. *Entrepreneurship and Regional Development*, Vol. 8, pp. 105-126.
- Mason, C. M. and R. T. Harrison, (1993). Strategies for Expanding the Informal Venture Capital Market. *International Small Business Journal*, Vol. 11, Issue 4, pp. 23-38
- Mateut, S., S. Bougheas, P. Mizen, (2006). Trade Credit, Bank Lending and Monetary Policy Transmission. *European Economic Review*, Vol. 50, pp. 603-629.
- Mathias, P., (1973). Capital, Credit and Enterprise in the Industrial Revolution. *Journal of European Economic History*, Vol. 2, pp. 142.
- Mayer, R.C., J. H. Davis, and F. D. Schoorman, (1995). An Integrative Model of Organisational Trust. *Academy of Management Review*, Vol. 20, No. 3, pp. 709-734.
- Maykut, P. and R. Morehouse, (1994). *Beginning Qualitative Research: A Philosophic and Practical Guide*: Routledge Publications, 1994, pp. 1-194.
- McAllister, D. J., (1995). Affect and Cognition Based Trust as Foundations for Interpersonal Cooperation in Organisations. *Academy of Management Journal*, Vol. 38, No. 1, pp. 24-59.

- McEvily, S. K. and B. Chakravarthy, (2002). The Persistence of Knowledge-Based Advantage: An Empirical Test for Product Performance and Technological Knowledge. *Strategic Management Journal*, Vol. 23, pp. 285-305.
- McGrath, R., M. Tsai, S. Venkataraman, I. MacMillan, (1996). Innovation, Competitive Advantage and Rent: A Model and Test. *Management Science*, Vol. 42, pp.389-403.
- McGrath, R. G., (1999). Falling Forward: Real Options Reasoning and Entrepreneurial Failure'. *Academy of Management Review*, Vol. 24, pp. 13-30.
- McGrath, R. G. and I. MacMillan, (2000). *The Entrepreneurial Mindset*, Harvard Business School Press, Boston, MA. ISBN-10: 087584346, ISBN-13: 9780875848341, pp. 1-368.
- McMillan, J. H. and S. Schumacher, (1989). *Research in Education: A Conceptual Introduction*. Glenview, IL: Scott, Foreman and Company, Second Edition. ISBN-10: 0673397920, ISBN-13: 9780673397928, pp. 1-512.
- McMillan, J. and C. Woodruff, (2002). The Central Role of Entrepreneurs in Transition Economies. *Journal of Economic Perspectives*, Vol. 16, pp. 153-170.
- McNabb, D. E., (2004). *Research Methods for Political Science: Quantitative and Qualitative*. M. E. Sharpe Inc. ISBN: 0765612348, pp. 1-571.
- Menkhoff, L., D. Neuberger, and C. Suwanaporn, (2006). Collateral-Based Lending in Emerging Markets: Evidence from Thailand. *Journal of Banking and Finance*, Vol. 30, Issue 1, pp. 1-21.
- Menkhoff, L. and C. Suwanaporn, (2007). On the Rationale of Bank Lending in Pre-crisis Thailand. *Applied Economic*, Vol. 39, No. 9, pp. 1077-1089.
- Mensah, J. V., (2005). Small-Scale Industry as a Sponge? Empirical Survey in the Central Region, Ghana. *Singapore Journal of Tropical Geography*, Vol. 26, Issue 2, pp. 212-226.

- Mensah, S., (1997). Financial Markets and Institutions: Ghana's Experience. Presentation at the International Programme on Capital Markets and Portfolio Management, Indian Institute of Management, September 8-20, pp. 1-26.
- Mensah, S., (1996). The Valuation of Government Loan Guarantees: A Theoretical and Empirical Perspective. *Public Finance Quarterly*, Vol. 24, No. 2 pp. 263-281.
- Mester, L. J., L. I. Nakamura, and M. Renault, (1998). Checking Account and Bank Monitoring. Federal Reserve Bank of Philadelphia, Wharton, Financial Institutions Center, Working Paper, 99-02-C, pp. 1-42.
- Metcalf, H., T. Modood, and S. Virdee, (1996). Asian self-employment: The interaction of culture and economics in England, Policy Studies Institute, London. ISBN-10: 0853746982, ISBN-13: 9780853746980, pp. 1-155.
- Meyer, L., (1998). The Present and Future Roles of Banks in Small Business Finance. *Journal of Banking and Finance*, Vol. 22, pp. 1109 -1116.
- Meyer, R. L., (1989). Financial Services for Microenterprises: Programmes or Markets? In Jacob Levitsky (ed.), *Microenterprises in Developing Countries*, London: Intermediate Technology Publications.
- Meyerson, E. M., (1994). Human Capital, Social Capital and Compensation: The Relative Contribution of Social Contacts to Managers' Incomes. *Acta Sociologica*, Vol. 37, pp. 383-399.
- Meyer-Stamer, J., (2000). Adjusting to an Opening Economy: Three Industrial Clusters in Brazil, in Sverrisson, A. and van Dijk, M. P. (eds), *Local Economies in Turmoil: The Effects of Globalization and Deregulation* (Basingstoke: Macmillan) pp. 19-42.
- Mian, A., (2006). Distance Constraints: The Limits of Foreign Lending in Poor Economies." *The Journal of Finance*, Vol. LXI, No. 3 pp. 1465-1505.
- Michaelas, N., F. Chittenden, and P. Poutziouris, (1996b). Empirical Evidence of the Stability of the Determinants of Capital Structure in SME's. Manchester Business School Working Paper, No. 363.

- Milde, H. and J. G. Riley, (1988). Signalling in Credit Markets, *Quarterly Journal of Economics* Vol. 103, Issue 1, pp. 101-129.
- Miller, M., (2001). Credit Reporting Systems around the Globe. Paper presented at the Global Conference on Credit Scoring, Washington, D. C. 2-3 April, pp. 1-90.
- Miller, M. H., (1977). Debt and Taxes. *Journal of Finance*, Vol. 32, pp. 261-275.
- Miller, M. H., (1962). Credit Risk and Credit Rationing: Further Comment. *Quarterly Journal of Economics*, Vol. 76, pp. 480-488.
- Mincer, J., (1974). *Schooling, Experience and Earnings*. New York: Columbia University Press. ISBN-10: 0870142658, pp. 1-167.
- Mitra, J., (2000). Making Connections. Innovation and Collective Learning in Small Business. *Education + Training*, Vol. 42, No. 4/5, pp. 228-236.
- Mizruchi, M. S. and L. B. Strarns, (2001). Getting Deals Done: The Use of Social Networks in Bank Decision-Making. *American Sociological Review*, Vol. 66, No. 5, pp. 647-671.
- Modigliani, F. and M. Miller, (1963). Taxes and the Cost of Capital: A Correction. *American Economic Review*, Vol. 53, No. 3, pp. 433-443.
- Modigliani, F. and M. Miller, (1958). The Cost of Capital, Corporation Finance, and the Theory of Investment. *American Economic Review*, Vol. 48, pp. 261-297.
- Moensted, M., (2007). Strategic Networking in Small High Tech Firms. *The International Entrepreneurship and Management Journal*, Vol. 3, No. 1, pp. 15-27.
- Monge-Naranjo, A. and L. J. Hall, (2003). Access to Credit and the Effect of Credit Constraints on Costa Rican Manufacturing Firms. Inter-American Development Bank, Banco Interamericano de Desarrollo, Latin American Research Network, Research Network Working Paper No. R-471, pp. 1-60.

- Monge-Naranjo, A., J. Cascante, and L. J. Hall, (2001). Enforcement, Contract Design, and Defaults: Exploring the Financial Markets of Costa Rica. Inter-American Development Bank, Banco Interamericano de Desarrollo, Latin American Research Network, Research Network Working Paper No. R-429, pp. 1-44.
- Monroy, T. and R. Folger, (1993). A Typology of Entrepreneurial Paradigm. *Journal of Private Enterprise*, Vol. 9, pp. 64-79.
- Monsted, M., (1995). Process and Structures of Networks: Reflections on Methodology. *Entrepreneurship and Regional Development*, Vol. 7, pp. 193-213.
- Morduch, J., (1999). The Microfinance Promise. *Journal of Economic Literature*, pp. 1569-1614.
- Moriizumi, Y., (1996). Credit Rationing and Public Housing Loans in Japan. *Journal of Housing Economics*, Vol. 5, pp. 227-246.
- Morna, C., (1990). Credit: A Key Agricultural Input. *African Farmer*, Vol. 1 No. 3.
- Morsman, E., Jr. (1986). Commercial Loan Structuring. *Journal of Commercial Bank Lending*, Vol. 68, pp. 2-20.
- Moy, J. W. and V. W. M. Luk, (2003). The Life Cycle Model as a Framework for Understanding Barriers to SME Growth in Hong Kong, *Asia Pacific Business Review*, Vol. 10, pp. 199-220.
- Muijs, D., (2004). *Quantitative Methods in Education Research*. Sage Publications, pp. 1-208.
- Muravyev, A., D. Schäfer, and O. Talavera, (2007). Entrepreneurs' Gender and Financial Constraints: Evidence from International Data. DIW Berlin, German Institute for Economic Research, Working Papers 706, Berlin, July 2007, pp. 1-39.
- Mushinski, D. W. and K. A. Pickering, (2007). Heterogeneity in Informal Sector Mitigation of Micro-Enterprise Credit Rationing. *Journal of International Development*, Vol. 19, pp. 567-581.

- Myers, M., (2000). Qualitative Research and the Generalisability Question: Standing Firm with Proteus. *The Qualitative Report*, Vol. 4, No. ½, pp. 1-4.
- Myers, S. C., (2001). Capital Structure. *The Journal of Economic Perspectives*, Vol. 15, No. 2, pp. 81-102.
- Myers, S. C., (1990). Financial Systems, Corporate Finance and Economic Development. In: R. Glenn Hubbard (Ed), *Asymmetric Information, Corporate Finance and Investment*. Chicago: The University of Chicago Press.
- Myers, S.C. (1984). The Capital Structure Puzzle. *Journal of Finance*, Vol. 39, Issue 3, pp. 575-592.
- Myers, S. C., (1977). Determinants of Corporate Borrowing. *Journal of Financial Economics*, Vol. 5, pp. 147-175.
- Myers, S.C. and N.S. Majluf (1984). Corporate Financing and Investment Decisions When Firms have Information that Investors do not have. *Journal of Financial Economics* Vol. 13, No. 2, pp. 187-221.
- Nagarajan, G. and R. L. Meyer, (1998). Collateral Substitutes: Effects on Loan Access and Size in the Philippine Informal Credit Markets. *Asia Pacific Development Journal*, Vol. 5, pp. 133-145.
- Nahapiet, J. and S. Ghoshal, (1998). Social Capital, Intellectual Capital, and the Organisational advantage. *Academy of Management Review*, Vol. 23, pp. 242-266.
- National Board for Small Scale Industries (NBSSI), (1997). Annual Report, Accra, pp. 1-5.
- Neal, A. and B. Hesketh, (2002). Productivity in Organisations. In N. Anderson, D. S. Ones, H. K. Sinangil, and C. Viswesvaran (Eds.), *Handbook of Industrial, Work, and Organisational Psychology*, Thousand Oaks, CA: Sage, Vol. 2, pp. 7-24.

- Neck, P. A. and R. E. Nelson, (1987). *Small Enterprise Development: Policies and Programme*. International Labour Organisation, Geneva, Switzerland. Management Development Series, No. 14, pp. 1-282.
- Neergaard, H., (2005). Networking Activities in Technology-Based Entrepreneurial Teams. *International Small Business Journal*, Vol. 3, No. 3, pp. 257-278.
- Neergaard, H. and J. P. Ulhói, (2007). *Handbook of Qualitative Research Methods in Entrepreneurship*. Edward Elgar Publications, 2007. ISBN-10: 1843768356, ISBN-13: 9781843768357, pp. 1-499.
- Neergard, H. and J. P. Ulhoi, (2006). Government Agency and Trust in the Formation and Transformation of Interorganisational Entrepreneurial Networks. *Entrepreneurship Theory and Practice*, Vol. 30, No. 4, pp. 519-539.
- Nelson, R. R. and S. G. Winter, (1982). *An Evolutionary Theory of Economic Change*. Belknap Press, Cambridge, MA. ISBN-10: 0674272285, ISBN-13: 9780674272286, pp. 1-454.
- Nelson, R.E., (1989). The Strength of Strong Ties: Social Networks and Inter-group Conflict in Organisations. *Academy of Management Journal*, Vol. 32, pp.377-401.
- Neubauer, F. and A. G. Lank, (1998). *The Family Business: It's Governance for Sustainability*. London: Palgrave Macmillan Press. ISBN-10: 0333692993, ISBN-13: 9780333692998, pp. 1-296.
- Newton, L., (2000). Trust and Virtue in English Banking: the Assessment of Borrowers by Bank Managements at the Turn of the Nineteenth Century. *Financial History Review*, Vol. 7, pp. 177-199.
- Nguyen, T. V., T. B. LE Ngoc, and N. J. Freeman, (2006). Trust and Uncertainty: A Study of Bank Lending to Private SMEs in Vietnam. *Asia Pacific Business Review*, Vol. 12, No. 4, pp. 547-568.
- Nguyen, T. V., M. Weinstein, and A. D. Meyer, (2005). Development of Trust: A Study of Interfirm Relationship in Vietnam. *Asia Pacific Journal of Management*, Vol. 22, No. 3, pp. 211-235.

- Nissanke, M. K. and E. Aryeetey, (1998). Financing Integration and Development in sub-Saharan Africa, Liberalization and Reform in sub-Saharan Africa. Routledge Studies in Development Economics, pp. 1-321.
- Nissanke, M. K., (2001). Financing Enterprise Development in sub-Saharan Africa. *Cambridge Journal of Economics*, Vol. 25, pp. 343-367.
- Nonaka, I., (1994). A Dynamic Theory of Organizational Knowledge Creation. *Organization Science*, Vol. 5, pp. 14 -37.
- Nooteboom, B., (2003). The Trust Process. In B. Nooteboom and F. Six (Eds), *The Trust Process on Organizations* (pp. 16-37). Cheltenham, U.K.: Edward Elgar. ISBN-10: 1843760789, ISBN-13: 9781843760788, pp. 1-243.
- Nooteboom, B., (2002). Trust: Forms, Foundations, Functions, Failures and Figures. Gheltenham, U. K.: Edward Elgar.
- Norton, E., (1991a). Capital Structure and Small Public Firms. *Journal of Business Venturing*, Vol. 6, pp. 287-303.
- Norton, E., (1991b). Capital Structure and Small Growth Firms. *Journal of Small Business Finance*, Vol. 1, No. 2, pp. 161-178.
- Nykqvist, J., (2008). Entrepreneurship and Liquidity Constraints: Evidence from Sweden. *The Scandinavian Journal of Economics*, Vol. 110, No. 1, pp. 23-43.
- O'Donnell, A. and D. Cummins, (1999). The use of Qualitative Methods to Research Networking in SMEs. *Qualitative Market Research: An International Journal*, Vol. 2, No. 2, pp. 82-91.
- Offe, C., (2001). Wie Können Wir Unseren Mitbürgern Vertrauen? In M. Hartmann and C. Offe (Eds), *Vertrauen: Die Grundlage des Sozialen Zusammenhalts*. New York: Campus. Frankfurt/Main, pp. 241-294.
- Ogujiuba, K. K., F. K. Ohuche, and A. O. Adenuga, (2004). Credit Availability to Small and Medium Scale Enterprises in Nigeria. Importance of New Capital Base for Banks – Background and Issues – Working Paper, pp. 1-25.



- Okoh, G. A. and S. G. Ping, (2000). Financing Small-Scale Manufacturing Firms in Ghana: Graduate Business School, School of Economics and Commercial Law, Göteborg University. ISSN-10: 1403851X, pp. 1-82.
- Okurut, F. N., A. Schoombree, and S. Van Der Berg, (2005). Credit Demand and Credit Rationing in the Informal Financial Sector in Uganda. *South African Journal of Economics*, Vol. 73, No. 3, pp. 482-497.
- Omonona, B. T., A. O. Jimoh, Y. A. Awoyinka, (2008). *European Journal of Social Sciences*, Vol. 6, No. 3, pp. 422-432.
- Ongena, S. and D. C. Smith, (2000). What Determines the Number of Bank Relationships? Cross-Country Evidence. *Journal of Financial Intermediation*, Vol. 9, Issue 1, pp. 26-56.
- Ongena, S. and D. C. Smith, (1998). Bank Relationship: A Review Working Paper. University of Florida.
- Organisation for Economic Cooperation and Development (OECD), (2004). Financing Innovative SMEs in a Global Economy. Promoting Entrepreneurship and Innovative SMEs in a Global Economy: Towards a more responsible and inclusive globalisation. 2<sup>nd</sup> OCED Conference of Ministers responsible for Small and Medium-Sizes Enterprises (SMEs), Istanbul, Turkey, pp. 1-47.
- Organisation for Economic Cooperation and Development (OECD), (2003). Observatory of European SMEs Highlights from the 2003 Observatory. Enterprise Publications No. 8. pp. 1-52.
- Organisation for Economic Cooperation and Development (OECD), (2002). Observatory of European SMEs, SMEs in Focus, main results from the 2002 Observatory of European SMEs, pp. 1-16.
- Organisation for Economic Cooperation and Development (OECD) (2001). The Wellbeing of Nations: The Role of Human and Social Capital. Paris: OECD. Executive Summary, pp. 1-8.
- Organisation for Economic Co-operation and Development (OECD), (1998). Fostering Entrepreneurship. Paris: OECD, pp. 1-22.

Organisation for Economic Cooperation and Development (OECD) (1997). The Oslo Manual. Proposed Guideline for Collecting and Interpreting Technological Innovation Data, Paris, OECD. ISBN-10: 9264013083, ISBN-13: 978926013087, pp. 1-162.

Otero, M. and C. Lopez, (2001). Credit Scoring in Microfinance. Paper Presented at the Global Conference on Credit Scoring, Washington, D. C. 2-3 April.

Ou, C. and G. W. Haynes, (2003). Use of Equity Capital by Small Firms. Findings from the Survey of Small Business Finances for 1993 and 1998. Paper Presented at the Academy of Entrepreneurial Finance 14<sup>th</sup> International Conference in Chicago, IL, pp. 1-23.

Oyelaran-Oyeyinka, B., G. O. A. Laditan, A. O. Esubiyi, (1996). Industrial Innovation in Sub-Saharan Africa: The Manufacturing Sector in Nigeria. *Research Policy*, Vol. 25, pp. 1081-1096.

Ozgen, E. and R. Baron, (2007). Social Sources of Information in Opportunity Recognition: Effect of Mentors, Industry Network, and Professional Forums. *Journal of Business Venturing*, Vol. 22, pp. 174-192.

Özyildirim, S. and Z. Önder, (2008). Banking Activities and Local Output Growth: Does Distance from Centre Matter? *Regional Studies*, Vol. 42, No. 2, pp. 229-244.

Padgett, D. K., (2008). *Qualitative Methods in Social Work Research*. Sage Publications, pp. 1-281.

Padilla, A. J. and M. Pagano, (2000). Sharing Default Information as a Borrower Discipline Devine. *European Economic Review*, Vol. 44, Issue 10, pp. 1951-1980.

Paglia, J. K., (2000). An Overview of Covenants in Large Commercial Bank Loans. Evergreen Loan Covenants, <http://www.exceptioncomplete.com/PDF/4993.pdf>, pp. 1-4.

Palich, L. E. and D.R. Bagby, (1995). Using Cognitive Theory to Explain Entrepreneurial Risk-taking: Challenging Conventional Wisdom. *Journal of Business Venturing*, Vol. 10, pp. 425-438.

- Park, K. and G. Pennacchi, (2009). Harming Depositors and Helping Borrowers: the Disparate Impact of Bank Consolidation. *Review of Financial Studies*, Vol. 22, pp. 1-40.
- Parker R., R. Riopelle, W. Steel, (1995). 'Small Enterprises Adjusting to Liberalisation in Five African Countries'. Technical Department, Africa Region, World Bank, Washington D. C. Discussion Paper, No. 271.
- Parker, S. C., (2002). Do Banks Ration Credit to New Enterprises? And Should Governments Intervene? *Scottish Economic Society*, Vol. 49, No. 2, pp. 162-195.
- Parker, S. C. and C. M. Van Praag, (2006). Schooling, Capital Constraints and Entrepreneurial Performance: The Endogenous Triangle. *Journal of Business and Economic Statistics*, Vol. 24, No. 4, pp. 416-431.
- Parkhe, A., (1993). Strategic Alliance Structuring: A Game Theoretic and Transaction Cost Examination of Inter-firm Cooperation. *Academy of Management Journal*, Vol. 36, No. 4, pp. 794-829.
- Patton, M. O., (1987). How to use Qualitative Methods in Evaluation, Sage Publications, Newbury Park, CA. ISBN-10: 0803931298, ISBN-13: 9780803931299, pp. 1-176
- Pennings, J. M., K. Lee, and A. van Witteloostuijn, (1998). Human Capital, Social Capital, and Firm Dissolution. *Academy of Management Journal*, Vol. 41, No.4, pp. 425-440.
- Penrose, E.T., (1959). *The Theory of the Growth of the Firm*, New York, John Wiley.
- Perez, S. J., (1998). Testing for Credit Rationing: An Application of Disequilibrium Econometric. *Journal of Macroeconomics*, Vol. 20, No. 4, pp. 721-739.
- Perren, L. and M. Ram, (2004). Case-Study Methods in Small Business and Entrepreneurial Research: Mapping Boundaries and Perspective. *International Small Business Journal*, Vol. 22, No. 1, pp. 83-101.
- Petersen, M. A., (2004). Information: Hard and Soft. *Mimeo*, Kellogg School of Management, Northwestern University and NBER, pp. 1-20.

- Petersen, M. A, and R. G. Rajan, (2002). Does Distance Still Matter? The Information Revolution in Small Business Lending." *The Journal of Finance*, Vol.57, No. 6, pp. 2533-2570.
- Petersen, M. A. and R. G. Rajan, (1997). Trade Credit: Theories and Evidence. *Review of Financial Studies*, Vol. 10, No. 3, pp. 661-691.
- Petersen, M. A. and R. G. Rajan, (1995). The Effect of Credit Card Competition on Lending Relationships. *Quarterly Journal of Economics*, Vol. 110, pp. 406–443.
- Petersen, M. A. and R. G. Rajan, (1994). The Benefits of Lending Relationships: Evidence from Small Business Data. *Journal of Finance*, Vol. 49, No. 1, pp. 3-37.
- Petrack, M., (2004). Farm Investment, Credit Rationing and Governmentally Promoted Credit Access in Poland: A Cross-Sectional Analysis. *Food Policy*, Vol. 29, pp. 275-294.
- Petrack, M., (2005). Empirical Measurement of Credit Rationing in Agriculture: A Methodological Survey. *Agricultural Economics*, Vol. 33, pp. 191-203.
- Pettit, R. and R. Singer, (1985). Small Business Finance: A Research Agenda. *Financial Management*, pp. 47-60.
- Petty, J. and W. Bygrave, (1993). What does Finance have to say to the Entrepreneur? *Journal of Small Business Finance*, Vol. 2, pp. 125-137.
- Pfeffer, J., (1994). *Competitive Advantage Through People. Unleashing the Power of the Work Force* Boston: Harvard Business School Press. ISBN: 0875844138, pp. 1-281.
- Phillips, C. A. and S. Bruchey, (1981). *Bank Credit*. Ayer Publications, ISBN-13: 0405136757, pp. 1-374.
- Piga, C. A. and G. Atzeni, (2007). R & D Investment, Credit Rationing and Sample Selection. *Bulletin of Economic Research*, Vol. 59, No. 2, pp. 0307-3378.

- Pinheiro, A. C. and C. Cabral, (1999). Credit Markets in Brazil: The Role of Judicial Enforcement and other Institutions. Banco Interamericano De Desarrollo, 1300, New York, Avenue, N. W. Washington D. C. 20577. Ensaio BNDES, pp. 1-80.
- Pinkse, J., M. E. Slade, and C. Brett, (2002). Spatial Price Competition: A semi parametric approach, *Econometrica*, Vol. 70, pp.1111-1153.
- Pissarides, F., (1999). Is Lack of Funds the Main Obstacle to Growth? EBRD'S Experience with Small and Medium-Sized Businesses in Central and Eastern Europe. *Journal of Business Venturing*, Vol. 14, pp.519-539.
- Platteau, J. P., (1994a). Behind the Market Stage, Where Real Societies Exist – part 1. The Role of Public and Private Order Institutions. *Journal of Development Studies*, Vol. 30, pp. 533-577.
- Podolny, J., (1994). Market Uncertainty and the Social Character of Economic Exchange. *Administrative Science Quarterly*, Vol. 39, pp. 458-483.
- Podolny, J. M. and K. L. Page, (1998). Network Forms of Organisation. *Annual Review of Sociology*, Vol. 24, pp. 57-76.
- Podsakoff, P. M., S. B. Mackenzie, J. Y. Lee, and N. P. Podsakoff, (2003). Common Methods Biases in Behavioural Research: A Critical Review of the Literature and Recommended Remedies. *Journal of Applied Psychology*, Vol. 88, No. 5, pp. 879-903.
- Pohle, M., (1995). Risk, Information and Noise: Risk Perception and Risk Management of French and German Banks during the Nineteenth Century. *Financial History Review*, Vol. 2, pp. 32.
- Polanyi, M., (1967). *The Tacit Dimension* (first published in 1966). Routledge and Kegan Paul, London, pp. 1-68.
- Porteous, D., (1995). *The Geography of Finance: Spatial Dimensions of Intermediary Behaviour*, Avebury Ashgate, Aldershot, England. ISBN-10: 1859720463, pp. 1-230.

- Portes, A., (1998). Social Capital: Its Origins and Applications in Modern Sociology. *Annual Review of sociology*, Vol. 24, pp. 1-24.
- Poutziouris, P. and F. Chittenden, (1996). Family Business or Business Family? The Institute of Small Business Affairs, Research Series Monograph 2.
- Powell, W. W., (1996). Trust-based Forms of Governance. In R. M. Kramer and T.R. Tyler (Eds), *Trust in Organisation* pp. 51-67. Thousand Oaks, CA: Sage Publications.
- Powell, W. W. and L. Smith-Doerr, (1994). Networks and Economic Life in N. J. Smelser and R. Swedberg (Editions.), *Handbook of Economic Sociology*, New York, Russell Sage, Foundation, pp. 368-402.
- Pozzolo, A. F., (2004). The Role of Guarantees in Bank Lending EFMA 2004 Basel Meeting Paper, pp. 1-24.
- Pressnell, L. S., (1956). *Country Banking in the Industrial Revolution*, Oxford. Charendon Press, pp. 1-591.
- Pruteanu, A., (2004). Was There Evidence of Credit Rationing in the Czech Republic? *Eastern European Economics*, Vol. 42, No. 5, pp. 58-72.
- Puhakka, V., (2002). Entrepreneurial Business Opportunity Recognition: Relations between Intellectual and Social Capital. Environmental Dynamism, Opportunity Recognition Behaviour and Performance, Universitas Wasaensis, Finland. Working Paper, pp. 1-115.
- Punch, K. F., (2005). *Introduction to Social Research: Quantitative and Qualitative Approaches*. Sage Publications, 2005, pp. 1-320.
- Putnam, R. D., (2000). *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon and Schuster, Limited. ISBN-10: 0743203046, ISBN-13: 9780743203043, pp. 1-544.

- Putnam, R. D., R. Leonardi, R. Y. Nanetti, (1993). *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton University Press, Princeton, NJ, Chichester. ISBN-10: 0691037388, ISBN-13: 9780691037387, pp. 1-280.
- Putzel, J., (1997). Accounting for the 'dark side' of Social Capital: Reading Robert Putnam on democracy. *Journal of International Development*, Vol. 9, No. 7, pp. 939-949.
- Quarley, P., (2001). Regulation, Competition and Small and Medium Enterprises in Developing Countries. Centre on Regulation and Competition, Institute for development policy and management, University of Manchester, Working paper series, ISBN, paper No. 10, pp. 1-22.
- Raiser, M., (1999). *Trust in Transition*. EBRD Working Paper 39, London: EBRD.
- Rajan, R. and A. Winton, (1995). Covenants and Collateral as Incentives to Monitor. *Journal of Finance*, Vol. 50, pp. 1113-1146.
- Rajan, R. and L. Zingales, (1995). What do we know about Capital Structure? Some Evidence from International Data. *Journal of Finance*, Vol. 50, pp. 1421-1460.
- Rand, J., (2007). Credit Constraints and Determinants of the Cost of Capital in Vietnamese Manufacturing, *Small Business Economics*, Vol. 29, pp. 1-13.
- Rauch, A. and M. Frese, (2000). Psychological Approaches to Entrepreneurial success: A general Model and an Overview of Findings. In C.L. Cooper and I.T. Robertson (Eds), *International review of industrial and organisational psychology*. Vol. 15, pp. 100-135. Chichester Sussex: Wiley and Sons.
- Rauch, A., M. Frese, and A. Utsch, (2005). Effects of Human Capital and Long-Term Human Resources Development and Utilisation on Employment Growth of Small-Scale Businesses: A Causal Analysis. *Entrepreneurship Theory and Practice*, pp.1042-2587.
- Reddings, G., (1990). *The Spirit of the Chinese Capitalism*. New York: Walter de Gruyter. ISBN-10: 899256570, ISBN-13: 110137941, pp. 1-261.

- Reed, R. and R. J. DeFillippi, (1990). Causal Ambiguity, Barrier to Imitation and Sustainable Competitive Advantage. *Academy of Management Review*, Vol. 15, pp. 88-102.
- Reed, E., E. Richard, V. Cotter, E. K. Gill, and R. K. Smith, (1976). Commercial Banking. Englewood Cliffs, Prentice Hall, pp. 1-442.
- Reicheld, F. and W. E. Sasser, (1990). Zero Defections: Quality Comes to Services. *Harvard Business Review*, Vol. 68, No. 5, pp. 105-111.
- Reid, G. C., (2003). Trajectories of Small Business Financial Structure. *Small Business Economics*, Vol. 20, pp. 273-285.
- Reuber, A. R. and E. Fischer, (1999). Understanding the Consequences of Founders Experience. *Journal of Small Business Management*, Vol. 37, 30-45.
- Reynolds, P., (1997). Who Starts Firms? Preliminary Explorations of Firms in Gestation. *Small Business Economics*, Vol. 9, pp. 449-462.
- Reynolds, P., D. J. Storey, and P. Westhead, (1994). Cross-national Comparisons of the variation in new firm formation rates, *Regional Studies*, Vol. 28, pp. 443-456.
- Ridley, M., (1995). *The Origins of Virtue*, London pp. 80-82.
- Ring, P. S. and A. H. Van Den Ven, (1992). Structuring Cooperative Relationships Between Organisations. *Strategic Management Journal*, Vol. 13, pp. 483-498.
- Ring, P. S. and A. H. Van de Ven, (1994). Developmental Processes of Cooperative Interorganisational Relationships. *Academy of Management Review*, Vol. 19, No. 1, pp. 90-118.
- Rizov, M., (2004). Credit Constraints and Profitability: Evidence from a Transition Economy. *Emerging Markets Finance and Trade*, Vol. 40, No. 4, pp. 63-83.



- Robb, A. and J. Wolken, (2002). Firm, Owner, and Financing Characteristics: Differences between Female and Male Owned Small Businesses. Federal Reserve Board Governors, pp. 1-28.
- Robbie, K. and M. Wright, (1996). Management Buy-Ins: Active Investors and Corporate Restructuring. Manchester: Manchester University Press. ISBN-10: 071904281X, ISBN-13: 978-0719042812, pp. 1-168.
- Robinson, P. B. and E. A. Sexton, (1994). The Effects of Education and Experience of Self-employment Success. *Journal of Business Venturing*, Vol. 9, pp. 141-156.
- Robson, P. J. A. and B. A. Obeng, (2008). The Barriers to Growth in Ghana. *Small Business Economics*, Vol. 30, pp. 385-403.
- Rogers, E. M., (1995). Diffusion of innovations. New York: Free Press. Fourth Edition. ISBN-10: 0029266718, ISBN-13: 9780029266717, pp. 1-518.
- Rogers, M., (2004). Networks, Firm Size and Innovation. *Small Business Economics*, Vol. 22, Issue 2, pp. 141-165.
- Romano, C. A., G. A. Tanewski, and K. X. Smyrniotis, (2001). Capital Structure Decision Making: A Model for Family Business. *Journal of Business Venturing*, Vol. 16, Issue 3, pp. 285-310.
- Ronstadt, R. (1988). The Corridor Principle, *Journal of Business Venturing*, Vol. 3, pp. 31-40.
- Roosa, R., (1951). Interest Rates and the Central Bank, in Money, Trade and Economic Growth: Essays in Honour of John Henry Williams, New York: Macmillan, pp. 270-295.
- Rosa, P., (1998). Entrepreneurial Processes of Business Cluster Formation and Growth by Habitual Entrepreneurs, *Entrepreneurship, Theory and Practice*, Vol. 22, pp. 43-61.
- Rose, P.S., (1995). Commercial Bank Management, Third Edition, The Irwin Series in Finance, Richard D. Irwin Publishing Company, Chicago. pp. 596-598.

- Rosen, B. and T. H. Jerdee, (1977). Influence of Subordinate Characteristics on Trust and Use of Participative Decision Strategy in Management Stimulation. *Journal of Applied Psychology*, Vol. 62, pp. 631.
- Rosenzweig, M. R., (1988). Risk, Implicit Contracts and the Family in Rural Areas of Low-Income Countries. *The Economic Journal*, Vol. 98, No. 393, pp. 1148-1170.
- Rousseau, D. M., S. B. Sitkin, R. S. Burt, and C. Camerer, (1998). Not so Different After All: A Cross-Discipline View of Trust. *Academy of Management Review*, Vol. 23, pp. 405-421.
- Russo, P. F. and P. Rossi, (2001). Credit Constraints in Italian Industrial Districts. *Applied Economics*, Vol. 33, pp. 1469-1477.
- Ryder, H. E., (1962). Credit Risk and Credit Rationing: Comment. *Quarterly Journal of Economics*, Vol. 76, pp. 471-479.
- Sacerdoti, E., (2005). Access to Bank Credit in sub-Saharan Africa. Key Issues and Reform Strategies. *IMF Working Paper*, WP/05/166 pp.1-39.
- Sahlman, W. A., (1990). The Structure and Governance of Venture Capital Organisations. *Journal of Financial Economic*, Vol. 27, pp. 473-521.
- Sahu, G. B., S. Madheswaran, and D. Rajasekhar, (2004). Credit Constraints and Distress Sales in Rural India: Evidence from Kalahandi District, Orissa. *Journal of Peasant Studies*, Vol. 31, No. 2, pp. 210-241.
- Salop, S., (1979), Monopolistic Competition with outside Goods. *Bell Journal of Economics*, Vol. 10, pp. 141-156.
- Sandee, H. and P. Rietveld, (2000). Innovation in Roof Tile and Cooper Craft Clusters in Indonesia, in Sverrisson, A. van Dijk, M. P. (eds), *Local Economies in Turmoil: The Effects of Globalisation and Deregulation* (Basingstoke: Macmillan) pp. 95-113.

- Santos, N., (2003). Financing Small, Medium and Micro Enterprises in Post-conflict Situations. Microfinance Opportunities in the Democratic Republic of the Congo. OECD Development Centre. Discussion Paper Produced for the Seminar "Public Private Partnership for the Development of the Democratic Republic of Congo" Kinshasa, April 7, pp. 1-64.
- Saparito, P. A., C. C. Chen, and H. J. Sapienza, (2004). The Role of Relational Trust in Bank-Small Firm relationship. *Academy of Management Journal*, Vol. 43, No. 3, pp. 400-410.
- Sapienza, P., (2002). The Effects of Banking Mergers on Loan Contracts. *Journal of Finance*, Vol. 57, Issue 1, pp. 329-367.
- Sapienza, H. J, S. Manigart, and W. Vermeir, (1996). Venture Capitalists Governance and Value Added in Four Countries. *Journal of Business Venturing*, Vol. 11, pp. 439-469.
- Sarder, J., (2001). An Assessment of Operational Conditions of Cottage, Small and Medium Enterprises (CSME) in Bangladesh, Report Prepared for FBCCI, Dhaka, pp. 1-27.
- Scheaffer, R., M. Gnanadesikan, A. Watkins, and J. Witmer, (1996). Activity-Based Statistics: Instructor Resource, New York. Springer, Verlag. ISBN-10: 0387945970, ISBN-13: 9780387945972, pp. 1-258.
- Schiffer, M. and B. Weder, (2001). Firm Size and the Business Environment: Worldwide Survey Result. International Finance Corporation (IFC), The World Bank, Washington, DC. Discussion Paper, No. 43, pp. 1-51.
- Schilit, W.K., (1991). Dream Makers and Deal Breakers: Inside the Venture Capital Industry. Prentice Hall. ISBN-10: 0139340351, ISBN-13: 9780139340352, pp. 1-256.
- Schreiner, M. and G. Woller, (2003). Microenterprise Development Programme in the United States and in the Developing World. *World Development*, Vol. 31, pp. 1567-1580.
- Schultz, T. W., (1959). Investment in Man: An Economist's View. *Sociological Service Review*, Vol. 33, No. 2, pp. 69-75.

- Schultz, T. W., (1961). Investment in Human Capital. *American Economic Review*, Vol. 51, pp. 1-17.
- Schumpeter, J. A., (1942). Capitalism, Socialism, and Democracy. First Edition. New York: Harper and Row, pp. 1-381.
- Scott, I. O., (1957). The Availability Doctrine: Theoretical Underpinnings. *The Review of Economic Studies*, Vol. 25, No. 1, pp. 41-48.
- Scott, J. and W. Dunkelberg, (1999). Bank Consolidation and Small Business Lending. A. Small Firm Perspective. In Business Access to Capital and Credit (eds J. Blanton, A. Willaims and S. Rhine), pp. 238-361. A Federal Research System Research Conference.
- Scott, J. A., (2004). Small Business and the Value of Community Financial institution. *Journal of Financial Services Research*, Vol. 25, No. 2, pp.207 – 230.
- Seaton, J. S. And I. Walker, (1997). Signally, Disclosure and the Implications of Financial Structure for UK Corporate R and D. *Economics of Innovation and New Technology*, Vol. 5, Issue 1, pp. 75-90.
- Senbet, L. W. and I. Otchere, (2006). Financing Sector Reforms in Africa: Perspective on Issues and Policies. Annual World Bank Conference on Development Economics. The World Bank, Washington, D. C. pp. 81-121.
- Sengupta, R., (2007). Foreign Entry and Bank Competition. *Journal of Financial Economics*, Vol. 84, Issue 2, pp. 502-528.
- Sexton, D. and N. Bowman, (1984). Entrepreneurship Education: Suggestions for Increasing Effectiveness. *Journal of Small Business Management*, Vol. 22, pp. 18-25.
- Seymour, C. R. and W. E. Jr. Wetzel, (1981). Informal Risk Capital in New England. Washington, D.C. United States Small Business Administration, Office of Advovacy.
- Shailer, G. E. P., (1999). The Relevance of Owner-Manager Signals and Risk Proxies to the Pricing of Bank Loans. *Accounting and Business Research*, Vol. 30, pp. 57-72.

- Shane, S., (2000). Prior Knowledge and the Discovery of Entrepreneurial Opportunities, *Organisation Science*, Vol.11, pp. 448-469.
- Shane, S. and S. Venkataraman, (2000). The Promise of Entrepreneurship as a Field of Research. *Academic Management Review*, Vol. 25, No. 1, pp. 217-226.
- Shane, S. and D. Cable, (2002). Network Ties, Reputation, and the Financing of New Ventures. *Management Science*, Vol. 48, No. 3, pp. 364-381.
- Sharpe, S. A., (1990). Asymmetric Information, Bank Lending and Implicit Contracts: A stylized Model of Customer Relationships. *Journal of Finance*, Vol. 45, pp. 1069-1087.
- Shaver, K. and L. R. Scott, (1991). Person, Process, Choice: The Psychology of New Venture Creation. *Entrepreneurial Theory and Practice*, Vol.16, pp. 23-45.
- Shaw, E. and S. Conway, (2000). Networking and the Small Firm in Enterprise and Small Business. Ed. S. Carter and D. Jones-Evans. Harlow, UK: Financial Times/Prentice Hall, pp. 367-383.
- Shaw, R. B., (1997). Trust in Balance: Building Successful Organisations on Results of Integrity and Concern. San Francisco, C.A. Jossey Bass Publishers. ISBN-13: 9780787902865, pp. 1-272.
- Shleifer, A. and R. W. Vishny, (1989). Management Entrenchment: The Case of Manager-Specific Investments. *Journal of Financial Economics*, Vol. 25, pp. 123-139.
- Shockley, R. and A. V. Thakor, (1993). Information Content of Commitments to Lend in the Future: Theory and Evidence on the Gains from Relationship Banking, Working Paper, Indiana University.
- Shrader, R. and D. S. Siegel, (2007). Assessing the Relationship Between Human Capital and Firm Performance: Evidence from Technology-Based New Venture. *Entrepreneurship Theory and Practice*, Vol. 31, pp. 893-908.

- Shrivastava, P. and J. H. Grant, (1985). Empirically Derived Models of Strategic Decision-Making Processes. *Strategic Management Journal*, Vol. 6, pp. 97-113.
- Shyam-Sunder, L. and S. Myers, (1999). Testing Static Trade-off Against Pecking Order Models of Capital Structure. *Journal of Financial Economics*, Vol. 51, pp. 219-244.
- Singh, G. and R. Belwal, (2008). Entrepreneurship and SMEs in Ethiopia. *Gender in Management*, Vol. 23, No. 2, pp. 120-136.
- Singh, R. P., G. E. Hills, R. C. Hybels and G. T. Lumpkin, (1999). Opportunity Recognition through Social Network Characteristics of Entrepreneurs. In P. D. Reynolds, W. D. Bygrave, S. Manigart, C. M. Mason, G. D. Meyer, H. J. Sapienza, and K. G. Shaver (eds.), *Frontiers of Entrepreneurship Research*, 228-256. Wellesley, MA: Babson College, pp. 228-256.
- Slater, S. F., (1997). Developing A Customer Value-Based Theory of the Firm. *Journal of the Academy of Marketing Science*, Vol. 25, pp. 162-167.
- Smallbone, D. and F. Lyon, (2002). A Note on Trust, Networks, Social Capital and Entrepreneurial Behaviour. In H. H. Höhmann and F. Welter (Eds), *Entrepreneurial Strategies and Trust: Structure and Evolution of Entrepreneurial behavioural Patterns in East and West European Environments – Concept and Considerations* pp. 19-24. Bremen: Forschungsstelle Osteuropa.
- Smallbone, D. and F. Welter, (2001). The Distinctiveness of Entrepreneurship in Transition Economies. *Small Business Economic*, Vol. 16, No. 4, pp. 249-262.
- Smallbone, D. and P. Wyer, (2000). Growth and Development in the Small Firm, in Carter, S. and Jones-Evans, D. (Eds), *Enterprise and Small Business*, Prentice Hall, Harlow. (2<sup>nd</sup> ed), pp. 1-572.
- Smith, V. L., (1972). A Theory and Test of Credit Rationing: Some Generalizations. *American Economic Review*, Vol. 62, No. 3, pp. 477-483.
- Smith, C.W. and J. B Warmer, (1979). On Financial Contracting. An Analysis of Bond Covenants. *Journal of Financial Economics*, Vol. 7, pp. 117-161.

- Soh, P-H, (2003). The Role of Networking Alliances in Information Acquisition and its Implication for New Product Performance. *Journal of Business Venturing*, Vol. 18, Issue 6, pp. 727-744.
- Sonnenfeld, J. A. and P. L. Spence, (1989). The parting Patriarch of a Family Firm. *Family Business Review*, Vol. 2, No. 4, pp. 355-375.
- Soo, C. W., T. M. Devinney, and D. F. Midgley, (2002). Knowledge Creation in Organisations. Eploring Firm and Content Effects. Working Paper, 2002/55/MKT pp. 1-38.
- Sowa, N. K., (2003). Comment on 'The Golden Age of Business'. The Role of the Banking Sector [www.cepa.org.gh/archives/research-workingpaper/2003/Comment on the Golden Age of Business](http://www.cepa.org.gh/archives/research-workingpaper/2003/Comment%20on%20the%20Golden%20Age%20of%20Business).
- Sowa, N. K., (2002). Assessment of Poverty Reduction Policies and Programmes in Ghana. A Paper Presented in a Conference on Assessment of Poverty Reduction Policy Organised by INSEA and IDRC under Micro Impact of Macro Economic Adjustment Policies (MIMAP) Project, pp. 1-29.
- Sowa, N. K., A. Baah-Nuakoh, K. A. Tutu, and B. Osei, (1992). Small Enterprises and Adjustment: *The Impact of Ghana's Economic Recovery Programme*, London: Overseas Development Institute. ISBN-10: 0850031885, ISBN-13: 9780850031888, pp. 1-64.
- Sowa, N. K. and I. K. Acquaye, (1999). Financial and Foreign Exchange Markets Liberalisation in Ghana. *Journal of International Development*, Vol. 11 pp. 385-409.
- Spence, M., (1973). Job Market Signalling; *Quarterly Journal of Economics*, Vol. 87, No. 3, pp. 355-374.
- Spender, J.C., (1996). Making Knowledge the Basis of a Dynamic Theory of the Firm. *Strategic Management Journal*, Winter Special Issue, Vol. 17, pp. 45-62.

- Starr, J., and Bygrave, W. (1991). The Assets and Liabilities of Prior Start-up Experience: An Exploratory Study of Multiple Venture Entrepreneurs. In N. C. Churchill, W. D. Bygrave, J. G. Covin, D. L. Sexton, D. P. Slevin, K. H. Vesper and W. E. Wetzel (Eds), *Frontiers of Entrepreneurship Research 1991*, Wellesley, MA, Babson College, pp. 213-227.
- Stedler, H. R. and H. H. Peters, (2003). Business Angels in Germany: An Empirical Study. *Venture Capital, An International Journal of Entrepreneurial Finance*, Vol. 5, No. 3, pp. 269-276.
- Steel, W. F, (1994). Changing the Institutional and Policy Environment for Small Enterprise Development in Africa. *Small Enterprise Development*, Vol. 5, No. 2, pp. 4-9.
- Steel, W. F. and L. M. Webster, (1992). How Small Enterprises in Ghana have Responded to Adjustment, *The World Bank Economic Review*, Vol. 6, No. 3, pp. 423-438.
- Steel, W. F. and L. M. Webster, (1991). Small Enterprises under Adjustment in Ghana. Technical Paper No. 138, World Bank, Washington, D. C., USA, pp. 1-70.
- Steijvers, T. and W. Voordeckers, (2007). Credit Rationing in the Corporate Bank Loan Market: Short-Term Versus Long-Term Bank Debt Rationing. Hasselt University, KIZOR Research Centre. <http://hdl.handle.net/1942/7869>.
- Stein, J. C., (2002). Information Production and Capital Allocation: Decentralised versus Hierarchical Firms. *Journal of Finance*, Vol. LVIL, pp. 1891-1922.
- Stephan, F. F. and P. J. McCarthy, (1958). Sampling Opinion. An Analysis of Survey Procedure. John Wiley and Sons, Inc. New York, pp. 1-451.
- Stephanou, C. and C. Rodriguez, (2008). Bank Financing to Small and Medium-Sized Enterprises (SMEs) in Colombia. Latin America and the Caribbean Region. Financial and Private Sector Development Unit. The World Bank, Policy Research Working Paper, WPS 4481, PP. 1-46.
- Stephen, D., (1990). An Outsider in Kano, in: G. Vulliamy, K. Lewin, and D. Stephen (eds). *Doing Educational Research in Developing Countries*, pp. 68-82 (London, The Falmer Press).



- Stevenson, H. H., M. J. Robert, and H. I. Grousbeck, (1985). *New Business Ventures and the Entrepreneur*. Homewood, IL: Richard D. Irwin, Inc. Second Edition. ISBN-10: 025602166X, ISBN-13: 9780256021660, pp. 1-345.
- Stewart, F., (1987). *Macro-policies for Appropriate Technology in Developing Countries*. Westview Press, (ed) Boulder, Colo (EUA), pp. 1-315.
- Stiglitz, J. E., (2000). Capital Market Liberalisation, Economic Growth and Instability. *World Development*, Vol. 28, No. 6, pp. 1075-1086.
- Stiglitz, J. E., (1989). Imperfect Information in the Product Market. *Handbook of Industrial Organisation*, Vol. 1, pp. 769-847.
- Stiglitz, J. E., (1975). The Theory of Screening, Education, and the Distribution of Income. *The American Economic Review*, Vol. 65, No. 3, pp. 283-300.
- Stiglitz, J. E. and A. M. Weiss, (1986). Credit Rationing and Collateral in Recent Developments in Corporate Finance, Cambridge, (ed) J. Edwards, pp. 101-136.
- Stiglitz, J. E. and A. Weiss, (1981). Credit Rationing in Markets with Imperfect Information. *American Economic Review*, Vol. 71, Issue 3, pp. 393-410.
- Storey, D. J., (2004). Racial and Gender Discrimination in the Micro Firms Credit Market? Evidence from Trinidad and Tobago. *Small Business Economics*, Vol. 23, No. 5, pp. 401-422.
- Storey, D. J., (1994). *Understanding the Small Business Sector*. Cengage Learning EMEA, Routledge, London. ISBN-10: 1861523815, ISBN-13: 9781861523815, pp. 1-355.
- Strahan, P. E. and J. P. Weston, (1998). Small Business Lending and the Changing Structure of the Banking Industry. *Journal of Banking and Finance*, Vol. 22, pp. 821-845.
- Stulz, R. M. and H. Johnson, (1985). An Analysis of Secured Debt. *Journal of Financial Economics*, Vol.14, pp. 501-521.

- Sunley, P., B. Klagge, C. Berndt, and R. Martin, (2005). Venture capital programmes in the UK and Germany. In what sense Regional Policies. *Regional Studies*, Vol. 39, No. 2, pp. 255-273.
- Sussman, O. and J. Zeira, (1995). Banking and Development. CEPR Discussion Paper 1127. Theses Jacques F., and Xavier Vives, 1988, on the Strategic Choice of Spatial Price Policy, *American Economic Review*, Vol. 78, pp. 122-137.
- Sverrisson, A., (1997). Enterprise Networks and Technological Change: Aspects of Light Engineering and Metalworking in Accra, in van Dijk, M. P. and Rabellotti, R. (eds), *Enterprise Clusters and Networks in Developing Countries* (London: Frank Cass) pp. 169-190.
- Sverrisson, A., (1994). Gradual Diffusion of Flexible Techniques in Small and Medium-sized Enterprise Networks, in Pedersen, P. O., Sverrisson, A. and van Dijk, M. P. (eds). *Flexible Specialization: The Dynamics of Small-Scale Industries in the South* (London: Intermediate Technology Publishers) pp. 42-54.
- Sykes, J., (1928). *The Present State of Joint Stock Banking*, London.
- Szabo, A., (1996). *The Role of Governments in Promoting Small and Medium-size Enterprises in Counties in Transition*, United Nations, Geneva. UN-ECE Operational Activities United Nations, Geneva.
- Tagoe, N., E. Nyarko, and E. Anuwa-Amarh, (2005). Financing Challenges Facing Urban SMEs under Financial Sector Liberalization in Ghana. *Journal of Small Business Management*, Vol. 43, No. 3, pp. 331-343.
- Tannous, G. F., (1997). Financing Export Activities of Small Canadian Business. Exploring the Constraints and Possible Solutions. *International Business Review*, Vol. 6, No. 4, pp. 411-431.
- Tashiro, Y., (1999). Business Angels in Japan. *Venture Capital*, Vol. 1, No. 3, pp. 259-273.
- Teach, R., F. Tarpley, and R. Schwartz, (1986). Software Venture Team. In Ronstadt, R., Hornaday, J., Peterson, R. R., Vesper, K. (Eds.), *Frontiers in Entrepreneurship Research*, 1986. Babson Centre for Entrepreneurial Studies, Wellesley, MA. Pp. 546-562.

- Teece, D. J., G. Pisano, and A. Shuen, (1997). Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, Vol. 18, No. 7, pp. 509-533.
- Thompson, Lighthouse and Co. (1996). Canadian Source of Financing for SMEs, In Lavoie, D. (ed.), *ICSB Bulletin*, Vol. 29, No. 4, pp. 5.
- Thorne, J., (1989). Alternative Financing for Entrepreneurial Ventures. *Entrepreneurship Theory and Practice*, pp. 7-9.
- Thurik, R. and S. Wennekers, (2001). Entrepreneurship, Small Business and Economic Growth. Rotterdam: Erasmus Research Institute of Management Report Series, pp. 1-10.
- Thurow, L.C., (1970). Investment in Human Capital, Wadsworth Publishing Company, Belmont, California, pp. 1-145.
- Timan, S. and R. Wessels, (1988). The Determinants of Capital Structure Choice. *Journal of Finance*, Vol. 43, No. 1, pp. 1-19.
- Timmons, J. A., (1994). New Venture Creation. Fourth Edition, Burr Ridge, IL: Irwin, Chicago.
- Timmons, J. A. and H. Sapienza, (1992). Venture Capital: The Decade Ahead, in D. L. Sexton and J. Kasarda (eds) *The State of the Art of Entrepreneurship* (Boston: PWS Kent), pp. 402-437.
- Ting, O. K., (2004). SMEs in Malaysia: Pivot Points for Change, online available at <http://www.mca.org.my>.
- Tirole, J., (1998). The Theory of Industrial Organisation. MIT Press, Boston, MA.
- Tornell, A. and F. Westermann, (2002). Credit Market Imperfections in Middle Income Countries, NBER, Working Paper, No. 9737, pp. 1-29.

- Tourangeau, R., L. J. Rips, and K. Rasinski, (2000). *The Psychology of Survey Response*. Cambridge, England: Cambridge University Press, pp. 1-401.
- Trovato, G. and M. Alfö, (2006). Credit Rationing and the Financial Structure of Italian Small and Medium Enterprises. *Journal of Applied Economics*, Vol. 9, No. 1, pp. 167-184.
- Trulsson, P., (1999). *Managing Growth: Perspectives on Achieving Small Enterprise Growth in Tanzania, Uganda and Zimbabwe*. (ILO working paper, PMD/4/E). Geneva: ILO. <http://www.ilo.org/public/english/employment/ent/papers/pmd-4.htm>, pp. 1-40.
- Tucker, J. and J. Lean, (2003). Small Firm Finance and Public Policy. *Journal of Small Business and Enterprise Development*, Vol. 10, No. 1, pp. 50-61.
- Tucker, J. and J. Lean, (2001). Information Asymmetry, Small Firm Finance and the Role of Government. *Journal of Finance and Management in Public Services*, Vol. 1, pp. 43-61.
- Tucker, C., J. M. Brick, and B. Meekins, (2007). Household Telephone Service and Usage Pattern in the US in 2004. *Public Opinion Quarterly*, Vol. 71, No. 1, pp. 3-22.
- Tull, D. S. and D. I. Hawkins, (1990). *Marketing Research, Measurement and Method*, (5<sup>th</sup> ed). Macmillan Publications, New York, NY.
- Turvey, C. G. and A. Weersink, (1997). Credit Risk and the Demand for Agricultural Loans. *Canadian Journal of Agricultural Economics*, Vol. 45, pp. 201-217.
- Ucbasaran, D., G. A. Alsos, P. Westhead, and M. Wright, (2008). 'Habitual Entrepreneurs'. *Foundations and Trends ® in Entrepreneurship*, Vol. 4, No. 4, pp. 309-450.
- Ucbasaran, D., P. Westhead, M. Wright, (2006). *Habitual Entrepreneur*. Cheltenham, Edward Elgar. ISBN-10: 184542249X, pp. 1-240.

- Ucbasaran, D., M. Wright, and P. Westhead, (2003). A Longitudinal Study of Habitual Entrepreneurs: Starters and Acquirers. *Entrepreneurship and Regional Development*, Vol. 15, No. 3, pp. 207-228.
- Ucbasaran, D., P. Westhead and M. Wright, (2001). The Focus of Entrepreneurial Research: Contextual and Process Issues, *Entrepreneurship Theory and Practice*, Vol. 25, No. 4, pp. 57-80.
- Uchida, H., G. F. Udell, and W. Watanabe, (2008). Bank Size and Lending Relationships in Japan. *Journal of the Japanese and International Economies*, Vol. 22, pp. 242-267.
- Ulhói, J.P., (2005). The Social Dimensions of Entrepreneurship. *Technovation*, Vol. 25, Issue 8, pp. 939-946.
- United Nations Conference on Trade and Development (UNCTAD), (2004). Entrepreneurship and Economic Development: The Empretec Showcase, Geneva. UNCTAD/WEB/ITE/TEB/2004/3, pp. 1-16.
- United Nations Conference on Trade and Development (UNCTAD), (2001). Survey of Good Practice in Public-Private Sector Dialogue. Enterprise Development Series, New York and Geneva: United Nations. UNCTAD/ITE/TEB/4, pp. 1-42.
- United Nations Conference on Trade and Development (UNCTAD), (1999). Providing Sustainable Financial and Non-financial Services for SME Development. Geneva: United Nations. TD/B/COM.3/EM. 7/2, pp. 1-20.
- United Nations Conference on Trade and Development (UNCTAD), (1995). Issues Concerning SME's Access to Finance. Report to the UNCTAD Trade and Development Board by the Ad Hoc Working Group on the Role of Enterprise in Development, Geneva UNCTAD. UNCTAD. TD/B/WG.7/6, pp. 1-40.
- United Nations Industrial Development Organisation (UNIDO), (2006). Annual Report, (2005). Industrial Development Board, Thirty First Session, Programme and Budget Committee, Twenty-Second Session, Vienna, 2006, IDB 31/2 –PBC 22/2, ISSN 1020-7651, pp. 1-140.

- United Nations Industrial Development Organisation (UNIDO), (1999). Financing of Private Enterprise Development in Africa. Need for Wider Range of Financial Instruments and Interface with Business Development Services for SMEs. Conference on Industrial Partnerships and Investments in Africa, Dakar, Senegal, 20-21 October, 1999, pp. 1-45.
- United Parcel Services, (UPS), (2005). UPS Reveals Asia Business Monitor Survey Findings, online available at <http://www.ups.com>, pp. 1-8.
- Usher, A. P., (1943). The Early History of Deposit Banking in Mediterranean Europe Harvard University Press, Cambridge, MA. Harvard Economic Studies, Vol. 75, pp. 1-603.
- Uzzi, B., (1999). Embeddedness in the Making of Financial Capital: How Social Relations and Networks Benefit Firms Seeking Financing. *American Sociological Review*, Vol. 64, pp. 481-505.
- Uzzi, B., (1997). Social Structure and Competition in Inter-firm Networks: The Paradox of Embeddedness. *Administrative Science Quarterly*, Vol. 42, pp. 35-67.
- Uzzi, B. and R. Lancaster, (2003). Relationship Embeddedness and Learning: The Case of Bank Loan Managers and Their Clients. *Management Science*, Vol. 49, No. 4, pp. 383-399.
- Valez, P., (2000). Interpersonal Trust between Supervisor and Subordinate, Doctoral Dissertation Abstracts International, UNI No. 3002301, University of California.
- Van Auken, H. E., (2001). Financing Small Technology-based Companies: The Relationship Between Familiarity with Capital and Ability to Price and Negotiate Investment. *Journal of Small Business Management*, Vol. 39, Issue 3, pp. 240-258.
- Van Auken, H. E. and R. B. Carter, (1989). Acquisition of Capital by Small Business. *Journal of Small Business Management*, Vol. 27, No. 2, pp. 1-9.
- Van Auken, E. Howard, and L. Neeley, (1996). Evidence of Bootstrap Financing among Small Business Start-up Firms. *Entrepreneurship and Small Business Finance*, Vol. 5, Issue 3, pp. 235-249.

- Van der Sluis, J. C. M. Van Praag, and W. Vijverberg, (2003). Entrepreneurship, Selection and Performance: A Meta-Analysis of the Role of Education. Impact of Education in Less Developed Countries, Working Paper, pp. 1-39.
- Van der Wijst, D., (1989). Financial Structure in Small Business Theory, Tests and Applications. Springer-Varlag, Berlin. Lecture Notes in Economics and Mathematical System Series, No. 320.
- Van Deth, J. W., (2003). Measuring Social Capital: Orthodoxies and Continuing Controversies. *International Journal of Social Research Methodology*, Vol. 6, No. 1, pp. 79-92.
- Van Eeden, S., M. Rhakadu, G. Sharp, and S. Viviers, (2003). Access to Finance – A Small Business Constraint. University of Port Elizabeth, South Africa. Working Paper, pp. 1-16.
- Van Straveren, I., (2001). Gender Biases in Finance. *Gender and Development*, Vol. 9, No. 1, pp. 9-17.
- Van Uxem, F. W. and J. Bais, (1996). Het Startten van een bedrijf: Ervaringen van 2000 Starters, Zoetermeer: EIM.
- Vandell, K. D., (1984). Imperfect Information, Uncertainty, and Credit Rationing: Comment and Extension. *The Quarterly Journal of Economics*, Vol. 99, No. 4, pp. 841-863.
- Venkataraman, S., (1997). The Distinctive Domain of Entrepreneurship Research: An Editor's Perspective, in *Advances in Entrepreneurship, Firm Emergence, and Growth*, Vol. 3, Ed. J. A. Katz. Greenwich, CA: JAI Press, pp. 119-138.
- Verheul I. and R. Thurik, (2001). Start-up Capital 'Does Gender Matter' *Small Business Economics*, Vol. 16, pp. 329-345.
- Vernier, E., (1993). Que Vaut Une Entreprise Sans Son Dirigeant. *Banque 566*, pp. 34-36.

- Visser, E. J., (2000). Structural Adjustment and Cluster Advantages: A Case from Peru, in Sverrisson, A. and van Dijk, M. P. (eds), *Local Economies in Turmiol: The Effects of Globalization and Deregulation* (Basingstoke: Macmillan) pp. 77-94.
- Vogel, R. and D. Adam, (1997). Costs and Benefits of Loan Guarantee Programmes. *The Financier*, Vol. 4, (1 and 2), pp. 22-29.
- Von Eije, H., M. Fishazion, and C. Lutz, (2003). Accessing Bank Credit in Eritrea: Bottlenecks for Small Firms and for the Commercial Bank of Eritrea. *Journal of Eritrean Studies*, vol. 1, No. 1, pp 59-74.
- Voordeckers, W. and T. Steijvers, (2005). Credit Rationing for SME's in the Corporate Bank Loan Market of a Bank-Based Economy. Working paper, Limburg University, Belgium. Working Paper, pp. 1-40.
- Voordeckers, W. and T. Steijvers, (2006). Business Collateral and Personal Commitments in SME lending. *Journal of Banking and Finance*, Vol. 30, pp. 3067-3086.
- Vos Ed., A. Yuh Yeh, C. Sara, and S. Tagg, (2007), The Happy Story of Small Business Financing. *Journal of Banking and Finance*, Vol. 31, Issue 9, pp. 2648-2672.
- Vulliamy, G., K. Lewin, D. Stephens, (1990), *Doing Educational Research in Developing Countries: Qualitative Strategies*. London: New York, Falmer Press. ISBN-10: 1850007136, ISBN-13: 9781850007135, pp. 1-265.
- Wagenvoort, R., (2003). Bank Survey Evidence on Bank Lending to SME in European Union: *European Investment Bank papers*, Vol. 01, pp. 1-56.
- Wald, J. K., (1999). How Firm Characteristics Affect Capital Structure: An International Comparison. *Journal of Financial Research*, Vol. 22, No. 2, pp. 161-187.
- Wale, J., (1994). What help have the Banks given British Industry? Some Evidence on Bank Lending in the Midlands in the late Nineteenth Century. *Accounting, Business and Financial History*, Vol. 4, Issue 2, pp. 321-342.
- Walker, D. A., (1989). Financing the Small Firm. *Small Business Economics*, Vol. 1, pp. 285-296.



- Walker, D. A., (1985). Trade Credit Supply for Small Businesses, *American Journal of Small Business*, Vol. 9, pp. 30–40.
- Walsh, M. and L. Wiggins, (2003). Foundations in Nursing and Health Care Series Edition. Introduction to Research. Nelson Thornes, ISBN: 0748771182, pp. 1-176.
- Watson, R. and N. Wilson, (2002). Small and Medium Size Enterprise Financing: A Note on Some of the Empirical Implications of a Pecking Order. *Journal of Business Finance Account*, Vol. 29, pp. 557-578.
- Wattanaputtipaisan, T., (2003). Four Proposals for Improved Financing of SME Development in Asean. *Asian Development Review*, Vol. 20, No. 2, pp. 1-45.
- Webster, L., (1991). World Bank Lending for Small and Medium Enterprises. The World Bank Washington D. C. World Bank Discussion Papers 113, pp. 1-76.
- Weick, K. E. (1993). The Collapse of Sensemaking in Organisation: The Mann Gulch Disaster. *Administrative Science Quarterly*, Vol. 38, pp. 628-652.
- Weick, K., (1996). Drop Your Tools: An Allegory for Organisation Studies. *Administrative Science Quarterly*, Vol. 41, pp. 301-314.
- Welbourne, T. M. and A. O. Andrews, (1996). Predicting Performance of Initial Public Offerings: Should Human Resource Management be in the Equation? *Academy of Management Journal*, Vol. 39, Issue 4, pp. 891-919.
- Welter, F. and D. Smallbone, (2006). Exploring the Role of Trust in Entrepreneurial Activity. *Entrepreneurship Theory and Practice*, Vol. 30, Issue 4, pp. 465-475.
- Wennekers, S., N. Noorhaven, G. Hofstede, and A. R. Thurik, (2002). Cultural and Economic Determinants of Business Ownership Across Countries. In Bygrave, W. D., E. Autio, C. G. Brush, P. Davidsson, P. G. Green, P. D. Reynolds, and H. J. Sapienza, (Eds.). *Frontiers of Entrepreneurship Research*, Babson College, Wellesley, Mass, pp. 179-190.

- Wennekers, S. and R. Thurik, (1999). Linking Entrepreneurship and Economic Growth. *Small Business Economics*, Vol. 13, pp. 27-55.
- Wennekers, S., L. M. Uhlaner, and R. Thurik, (2002). Entrepreneurship and its Conditions: A Micro Perspective, *International Journal of Entrepreneurship Education*, Vol. 1 pp. 25-64.
- Wernerfelf, B., (1989). From Critical Resources to Corporate Strategy. *Journal of General Management*, Vol. 14, pp. 4-12.
- Westhead, P., (1997). Ambitions, External Environment and Strategic Factor Difference between Family and Non-family Unquoted Companies, *Entrepreneurship and Regional Development*, Vol. 9, pp. 127-157.
- Westhead, P., (1995). Survival and Employment Growth Contracts between Types of Owner-Managed High-Technology Firms, *Entrepreneurship Theory and Practice*, Vol. 20, No. 1, pp. 5-27.
- Westhead, P. And D. J. Storey, (1997). Financial Constraints on the Growth of High Technology Small Firms in United Kingdom. *Applied Financial Economics*, Vol. 7, pp. 197-201.
- Westhead, P., D. Ucbasaran, M. Wright, and M. Binks, (2005c). Novice, Serial and Portfolio Entrepreneur Behaviour and Contributions. *Small Business Economics*, Vol. 25, pp. 109-132.
- Westhead, P., D. Ucbasaran, and M. Wright, (2005b). Experience and Cognition: Do Novice, Serial and Portfolio Entrepreneurs Differ? *International Small Business Journal*, Vol. 23, pp. 72-98.
- Westhead, P., D. Ucbasaran, M. Wright, (2005a). Decisions, Actions and Performance: Do Novice, Serial and Portfolio Entrepreneurs Differ? *Journal of Small Business Management*, Vol. 43, pp. 393-417.
- Westhead, P., D. Ucbasaran, M. Wright, and M. Binks, (2004). Policy Towards Novice, Serial and Portfolio Entrepreneurs. *Environment and Planning C: Government and Policy*, Vol. 22, pp. 779-798.

- Westhead, P., D. Ucbasaran, M. Wright and F. Martin, (2003a). Habitual Entrepreneurs In Scotland: Characteristics, Search Processes, Learning and Performance in Scottish Enterprise. 5 5 Atlantic Quay, 150 Broomielaw, Glasgow, G2, 8LU.
- Westhead, P., D. Ucbasaran and M. Wright, (2003b). Differences between Private Firms Owned by Novice, Serial and Portfolio Entrepreneurs: Implications for Policy-makers and Practitioners, *Regional Studies*, Vol. 37, No. 2, pp. 187-200.
- Westhead, P. and M. Wright, (2000). Introduction. In P. Westhead and M. Wright Editions. Aldershot: Edward Elgar publishing Limited. *Advances in Entrepreneurship*, 3 Volumes, pp. 11-46.
- Westhead, P. and M. Wright, (1999). Contributions of Novice, Portfolio and Serial Founders Located in Rural and Urban Areas, *Regional Studies*, Vol. 33, pp. 157-173.
- Westhead, P. and M. Wright, (1998b). Novice, Serial and Portfolio Located in Rural and Urban Areas. *Entrepreneurship Theory and Practice*, Vol. 22, No. 4, pp. 63-100.
- Westhead, P. and M. Wright, (1998a). Novice, Portfolio and Serial founders, are they Different? *Journal of Business Venturing*, Vol. 13, 173-204.
- Weston, J. F. and E. F. Brigham, (1981). Managerial Finance, Seven Edition, Hinsdale: Dryden Press, pp. 899-913.
- Wetzel, W. E., (1981). Informal Risk Capital in New England. In K. H. Vesper (ed.) *Frontiers of Entrepreneurship Research 1981* (Wellesley, MA: Babson College) pp. 217-245.
- Wiklund, J. and D. A. Shepherd, (2008). Portfolio Entrepreneurship: Habitual and Novice Founders, New Entry and Mode of Organising. *Entrepreneurship Theory and Practice*, Vol. 32, Issue 4, pp. 701-725.
- Williamson, O. E., (1981). The Economics of Organisation: The Transaction Cost Approach. *American Journal of Sociology*, Vol. 87.
- Williamson, S. D., (1987). Costly Monitoring, Loan Contracts, and Equilibrium Credit Rationing. *Quarterly Journal of Economics*, Vol. 102, pp. 135-145.

- Williamson, O. E., (1993). Calculativeness Trust and Economic Organisation. *Journal of Law and Economics*, Vol. 36, pp. 453-486.
- Wilson Committee, (1979). The Financing of Small Firms: Interim Report of the Committee to Review the Functioning of Financial Institutions, CMND 7503. London: HMSO.
- Wilson, P. F., (1993). The Pricing of Loans in a Bank-Borrower Relationship. Indiana University Working Paper (July).
- Winborg, J. and H. Landstrom, (2001). Financial Bootstrapping in Small Businesses: Examining Small Business Managers' Resource Acquisition Behaviours. *Journal of Business Venturing*, Vol. 16, Issue 3, pp. 235-254.
- Winker, P., (1999). Sluggish Adjustment of Interest Rates and Credit Rationing: An Application of Unit Root Testing and Error Correction Modelling. *Applied Economics*, Vol. 31, pp. 267-277.
- Winter-Nelson, A. and A. A. Temu, (2005). Liquidity Constraints, Access to Credit and Pro-poor Growth in Rural Tanzania. *Journal of International Development*, Vol. 17, pp. 867-882.
- Wintoro, D., (2000). An Investigation of the Role of Trust in the Relationship between Pension Fund Trustees and Investment Managers: An Indonesian Case Study, Department of Accounting and Finance, University of Wollongong, Vol. 12, pp. 1-444.
- Witt, P., (2004). Entrepreneurs Networks and the Success of Start-ups, *Entrepreneurship and Regional Development*, Vol. 16, pp. 391-412.
- Witt, U., (1998). Imagination and leadership – The Neglected Dimension of an Evolutionary Theory of the Firm. *Journal of Economic Behaviour and Organisation*, Vol. 35, pp. 161-177.

- Wolf, S., (2004). Performance and Problems of Enterprises in Ghana. Survey of Formal Private Sector Enterprises in the Agricultural and Manufacturing Sectors. Department of Agricultural Economic and Agribusiness, University of Ghana and Centre for Development Research, Bonn, Germany, pp. 1-27.
- Wolken, J. and D. Rhode, (2002). Changes in the Location of Small Businesses Financial Services Suppliers between 1993 and 1998. Federal Reserve Board Memorandum.
- Woolcock, M., (1998). Social Capital and Economic Development: Towards a Theoretical Synthesis and Policy Framework. *Theory and Society*, Vol. 27, No. 2, pp. 151-208.
- World Bank, (1993). Characteristics of and Constraints Facing Black Businesses in South Africa: Survey Results. Industry and Energy Division, Southern Africa Department, Washington, D. C. Discussion paper No. 5.
- World Bank, (2004a). Doing Business in 2004: Understanding Regulation Washington, DC: Oxford University Press.
- World Bank, (2004b). World Development Report 2005: A Better Investment Climate for Everyone. New York: Oxford University Press.
- Wright, M., K. Robbie, and C. Ennew, (1997a). 'Serial Entrepreneurs' *British Journal of Management*, Vol. 8, pp. 251-268.
- Wright, M., K. Robbie, and C. Ennew, (1997b). Venture Capitalists and Serial Entrepreneurs, *Journal of Business Venturing*, Vol. 12, pp. 227-249.
- Wright, P. M., B. B. Dunford, S. A. Snell, (2001). Human Resources and the Resource Based View of the Firm. *Journal of Management*, Vol. 27, pp. 701-721.
- Yin, R., (1994). Case Study Research: Design and Methods (2<sup>nd</sup> ed), Beverly Hills, CA: Sage Publications.

- Yli-Renko, H., (1999). Dependence, Social Capital, and Learning in Key Customer Relationships: Effects on the Performance of Technology-Based New Firms. Finnish Academy of Technology, Espoo Acta Polytechnica Scandinavica, IM5 Finland.
- Yli-Renko, H., E. Autio, and H. Sapienza, (2001). Social Capital, Knowledge Acquisition and Knowledge Exploitation in Young Technology-Based Firms. *Strategic Management Journal*, Vol. 22, pp. 587-613.
- Zahra, S. A. and J. G. Covin, (1995). Contextual Influences on the Corporate Entrepreneurship – Performance Relationship: A Longitudinal Analysis. *Journal of Business Venturing*, Vol. 10, Issue 1, pp. 43-58.
- Zand, D.E., (1972). Trust and Managerial Problem Solving. *Administrative Science Quarterly*, Vol. 17, pp. 229-239.
- Zeller, M., (1994). Determinants of Credit Rationing: A Study of Informal Lenders and Formal Credit Groups in Madagascar. International Food Policy Research Institute, Washington D. C., U.S.A. *World Development*, Vol. 22, No. 12: 1895-1907.
- Zhang, J., (2007). The Advantage of Experienced Start-up Founders in Venture Capital Acquisition: Evidence from Serial Entrepreneurs. Department of Economics, Clark University. Institute for the Study of Labour, IZA, Discussion Paper No. 2964.
- Zingales, L., (2000). In Search of New Foundations, *Journal of Finance*, Vol. 55, pp. 1623-1653.
- Ziorklui, S. Q., (2001). The Impact of Financial Sector Reforms on Banking Efficiency and Financial Deepening for Savings Mobilisation in Ghana. Howard University, African Economic Policy Discussion Paper, No. 81, pp. 1-74.
- Zucker, L., (1986). Production of Trust: Institutional Sources of Economic Structure, 1840-1920. B. Staw, L. Cummings, eds. *Research in Organisational Behaviour*, Vol. 8, pp. 53-111.

## Appendix I

DEFINITION OF CREDIT RATIONING					
Author (Year)	Objective of the paper	Definition of credit rationing	Sample surveyed/ Valid samples/ Response rate (%) /Type of analysis	Key Findings	Country
Baydas et al. (1994)	To evaluate the important factors used in credit rationing which result in some loan applicants being rejected and others are receiving less than they requested.	Credit rationing: "occurs when lenders grant the loans demanded by applicants who are identified as creditworthy borrowers while granting loans smaller than demanded to some applicants and completely rejecting other applicants willing to pay the interest rate demanded" (pp. 280).	Sample surveyed = 447 Valid sample = 248 Response rate = 55% Unit of Analysis = Entrepreneurs Analysis = Max Likelihood Regression	Suppliers do not discriminate against less profitable enterprises and entrepreneurs with lower levels of education because these entrepreneurs have lower demand for external finance compared to entrepreneurs with higher levels of education and profitable enterprises.	Ecuador
Turvey and Weersink (1997)	To provide insight into the empirical estimation of loan demand for agricultural loans	Credit rationing: "occurs when lenders face a demand for credit that exceeds the amount they are willing to lend at the prevailing market rate" (pp. 202).	Sample surveyed = 33,804 Valid sample = 8,451 Response rate = 25% Unit Analysis = Entrepreneurs Analysis = Logistic Regression	The loan contract curve showed a backward-bending indicating the evidence of credit rationing in agriculture.	Canada
Pruteanu (2004)	To investigate whether banks in Czech Republic ration credit to enterprises	Equilibrium credit rationing: "occurs whenever borrower's demand for credit is turned down, even if this borrower is willing to pay all the price and non-price elements of the loan contract" (pp. 59). Definition from Freixas and Rochet (1997).	Sample surveyed = 64 Valid sample = 64 Response rate = 100% Unit Analysis = Businesses Analysis = Log Likelihood Regression	Excess demand characterised the loan request only between the period January 1999 to December 2000 leading to credit rationing.	Czech Republic

Author (Year)	Objective of the paper	Definition of credit constrained	Sample surveyed/ Valid samples/ Response rate (%) /Type of analysis	Key Findings	Country
Nykvist (2008)	To investigate the relationship between wealth and entrepreneurship.	Credit rationing: "circumstances in which either among loan applicants who appear to be identical some receive a loan and other do not, and the rejected applicants would not receive a loan even if they offered to pay a higher interest rate" (pp. 394). Definition from Stiglitz and Weiss (1981).	Sample surveyed = 426,809 Valid sample = 300,000 Response rate = 70% Unit Analysis = Entrepreneurship Analysis = Probit Regression	A positive relationship between wealth and entrepreneurship exist indicating the presence of liquidity constraints. Also the presence of liquidity constraints implies low wealth households will be constrained from starting a business with only wealthy households having the opportunity to own businesses.	Sweden
Crook (1996)	To identify the characteristics of household who have been rejected or discouraged from applying from credit	Credit constraint: "individuals were defined as credit constrained if they were rejected and/or expected to be turned down" (pp. 480).	Sample surveyed = 3,143 Valid sample = 3,143 Response rate = 100% Unit Analysis = Individual household Analysis = Logistic Regression	The probability that a household is credit rationed increases if the head of the household is Black or America Indian, Eskimo, Aleut, Asian rather than White. Credit rationing also increases with the number of relations living at the same address.	United States
Jappelli et al. (1998)	To identify liquidity constrained households using direct indicators of credit status.	Credit Constraint: "occurs when a lender turns down any request of an applicant for credit or was unable to get as much credit as the applicant applied for" (pp. 254).	Sample surveyed = 35,280 Valid sample = 1,615 Response rate = 5% Unit Analysis = Individual households Analysis = OLS Regression	Consumers turned down for loans are considerably younger and earn less income than unconstrained households or those with low assets. However, only relatively few households were identified to be facing binding liquidity constraints.	United States



Author (Year)	Objective of the paper	Definition of discouraged borrowers	Sample surveyed/ Valid samples/ Response rate (%) /Type of analysis	Key Findings	Country
Winter-Nelson and Temu (2005)	To determine whether a liquidity constraint is affecting farm production and incomes	Liquidity-constrained firm: "when it lacks the finance from any source to undertake an investment that is profitable at the prevailing input, factor and output prices" (pp. 869).	Sample surveyed = 250 Valid sample = 250 Response rate = 100% Unit Analysis = Entrepreneurs Analysis = Probit Regression	Increased finance liquidity-constrained household could generate poor growth. Financial services to households that have no access to credit would not necessarily target lower income households or liquidity constraint farm activities.	Tanzania
Fletschner (2008)	To evaluate the impact of credit constraint on men and women and measure the effect on household efficiency.	Credit Constraint: "occurs when borrower's request for a loan were completely turn down, obtained only a smaller amount or the borrower decided not to apply or requested less than they had wished to borrow because they believe they would not get that amount" (pp. 675).	Sample surveyed = 210 Valid sample = 210 Response rate = 100% Unit Analysis = Entrepreneurs Analysis = Probit Regression	Households of women unable to meet the needs for credit experience an additional 11% drop in efficiency	Paraguay
Jappelli (1990)	To examine constrained consumers and the links existing between credit market imperfections and personal characteristics	- Credit constrained: "those who had their request for credit rejected by financial institutions" (pp.220). - Discouraged borrowers: "where there is a cost to apply, consumers with high probability of loan denials may not apply because they perceive that, if they do, they will be refused loans"(pp. 220).	Sample surveyed = 2,971 Valid sample = 563 Response rate = 19% Unit of analysis = Individual households Analysis = Logit Regression	Proportion of rejected applicants and discouraged borrowers was in the 20% range. Consumption of the constrained consumers were more likely to exhibit excess sensitivity to current income fluctuations. Constrained household = 370 (12.5%) Discouraged borrowers = 193 (6.4%) Credit rationed borrowers = 563 (19%)	United States

Author (Year)	Objective of the paper	Definition of discouraged borrowers	Sample surveyed/ Valid samples/ Response rate (%) /Type of analysis	Key Findings	Country
Crook (1999)	To identify the characteristics of discouraged potential applicants.	Discouraged Borrower: "an applicant who thought of applying for credit at a particular place, but changed the mind because the applicant thought the application might be turned down" (pp. 116).	Sample surveyed = 2,573 Valid sample = 2,573 Response rate = 100% Unit Analysis = Individual households Analysis = Logistic Regression	The probability of being discouraged is positively related to having missed two consecutive payments in the last year, to being Black, to being Hispanic, to the number of economic dependents, and to being a single female living on her own.	United States
Levenson and Willard (2000)	To measure the extent to which small business were able to access external credit finance they desired	Discouraged Borrower: "creditworthy firms that decide not to apply for desired external financing, given expectations about how long it may take to obtain financing and the evolution of investment opportunity" (pp. 83).	Sample surveyed = 3,404 Valid sample = 3,404 Response rate = 100% Unit Analysis = Small businesses Analysis = Probit Regression	6.36% of sampled firms were credit rationed in the U. S. in 1989-1988. Two-thirds of these totals (4.22%) were discouraged from applying by their expectation of denial. An additional 2.17% faced short-run delays in obtaining external finance.	United States
Mushinski and Pickering (2007)	To analyse micro-entrepreneurial access to formal and informal credit market	Discouraged Borrower: "entrepreneurs are considered rationed if the source of their failure to secure a bank loan was a manifestation of a market imperfection - arising from entrepreneurs not applying for fear of being rejected, would not obtain the loan, that loan costs is too high or lack sufficient collateral" (pp. 574).	Sample surveyed = 110 Valid sample = 110 Response rate = 100% Unit Analysis = Entrepreneurs Analysis = Probit Regression	Micro-entrepreneurs have virtually no access to formal credit markets and that informal credit markets have differential impacts on micro-entrepreneurs rationing in formal credit markets. Also, micro-enterprises of all sizes face a positive probability of credit rationing.	United States

## Appendix II

### Screening and clarification questionnaire

Screening and clarification questions completed prior to main questionnaire. This screening questionnaire was given to the entrepreneur of each small business, or to a major partner who was close to the entrepreneur and able to know and to provide the required information.

(1a). Is this business a subsidiary of another business?                      Yes    No

If Yes then END; if No ask the following clarification

(1b). So, can you confirm that this is an independent business?            Yes    No

If the business is a subsidiary and is not independent then END; Otherwise, Go To 2

(2). Did you start this business, or buy this business?                      Yes    No

If you did not start the business, or did not buy the business then END; Otherwise, Go To 3

(3). Have you run a business before?                      Yes    No

(4). How many businesses, other than this business, do you own? .....

(5). How many years have you been running businesses? .....

(6). What does this business make or do? .....

(7) Approximately, how many people are employed in this business? .....



**Durham Business School**

**Centre for Entrepreneurship**

**Survey of Small Businesses in Ghana**

**2007**

**This survey is prepared to gain a better understanding of the problems faced by small businesses in Ghana.**

**All the information which you provide will be kept confidential and anonymous, and will be used only for academic research.**

## SMALL BUSINESSES

### SECTION A: BUSINESS CHARACTERISTICS

A1. In which year was your business established?

A2. What does your business do or make?

.....

A3. What is the legal status of your business?

Registered Sole Proprietorship	1
Unregistered Sole Proprietorship	2
Partnership	3
Joint Venture	4
Corporation	5
Others (Please specify)	6

A4. How many businesses do you regard as serious competitors?  
(If no serious competitors, please write zero)

A5. Of your serious competitors:

a. How many businesses are larger than your business?

b. How many businesses are overseas?

A6. Has your business taken over any businesses in the last 3 years?  No  Yes

A7. How many employees do you now have in your business?

A8. How many employees did your business have at the end of its first year?

A9. How many employees did your business have a year ago?

A10. How many employees did your business have three years ago?

A11. Is your business an exporter?  No  Yes

## SECTION B: INNOVATION

Innovation is concerned with the application of new ideas. Often these ideas take the form of new products and services or new production processes. However, innovation may also refer to new work practices and workforce organisation, to new sources of supply or materials (or new ways of working with key suppliers), to the exploitation of new markets or means of reaching those markets (including innovations in marketing, selling and distribution) and to new administration and office systems. In the following section we would like you to tell us about innovation introduced into your business. Unless otherwise specified, the term innovation should be taken to encompass any of the categories described above. However, innovations should involve substantive changes.

B1. In the last 3 years, has your business undertaken any form of innovation as regards the following? Please circle the appropriate response on each line:

	Innovation Not Tried	Innovation Tried and Failed	Innovation New to business but not industry	Innovation New to industry
In products or services	1	2	3	4
In production processes	1	2	3	4
In work practices	1	2	3	4
In supply and supplier relations	1	2	3	4
In markets and marketing	1	2	3	4
In administration and office systems	1	2	3	4
In products or services distribution	1	2	3	4
Others (Please specify)	1	2	3	4

B2. In the last 3 years, has your business co-operated with other businesses or organisations for innovation related activity (including marketing, training, production techniques, management training and or technology transfer)?

No  Yes

B3. If yes, please indicate the type of firm/organisation and the location of the partner(s).

			Ghana Local ( $\leq 50\text{km}$ )	Ghana National	West Africa	Rest of Africa	Overseas
Customers	No	Yes					
Suppliers	No	Yes					
Competitors	No	Yes					
Tertiary Institutions	No	Yes					
NBSSI	No	Yes					
Empretec Gh Ltd	No	Yes					
DFID (Ghana)	No	Yes					
I FC	No	Yes					
APDF	No	Yes					
Technoserve Gh Ltd	No	Yes					

**SECTION C: FINANCE**

C1. At start-up which of the following sources of finance did you use, and it would also be helpful if you could indicate for each source what percentage of your capital it represented?

	No	Yes	% of capital
Own savings	No	Yes	
Pension	No	Yes	
Gift from relations	No	Yes	
Loan from relations	No	Yes	
Bank loan	No	Yes	
Bank overdraft	No	Yes	
Suppliers credit	No	Yes	
Co-investor	No	Yes	
Customer advance	No	Yes	
Others (Please specify)	No	Yes	
TOTAL			100%

C2. Which one source was the main/principal source of finance and why was that the case?

.....

C3. Which of the following methods does your business adopt in accumulating savings?

Home savings	No	Yes
Bank(s)	No	Yes
Purchase of T-bills, Shares, Bonds	No	Yes
Local banks ('Susu' agent)	No	Yes
Others (Please specify)	No	Yes

C4. Which of the following applies to your business?

Applied for a bank loan/overdraft (last year)	No	Yes
Applied for a bank loan/overdraft (last 2 years)	No	Yes
Applied for a bank loan/overdraft (last 3 years)	No	Yes
Never applied for a loan/overdraft	No	Yes
Enquired but discouraged	No	Yes

C5. The inability of the small business to provide adequate information during loan application may lead to some difficulties in having the loan approved or the application being declined altogether. Has your business experienced this phenomenon in the last three years?

No	Yes
----	-----

## D: ENTREPRENEUR'S CHARACTERISTICS

D1. Are you male or female?  Male  Female

D2. Which age group do you belong to?  18-30  31-45  46-60  60+

D3. Has any member of your family been involved in business in the past?  No  Yes

D4a. Do you currently employ any member of your family in the business?  No  Yes

D4b. If the answer to the above question is yes, please indicate the number and the role.

Number of family members	
Role	

D5. How many years have you been in business?  years

D6. Which of the following levels of education applies to you?  
Please tick all the boxes which are applicable.

No Education	No	Yes
Junior Secondary School	No	Yes
Senior Secondary School	No	Yes
Ordinary – Level	No	Yes
Advanced - Level	No	Yes
Apprenticeship/Vocational /Technical (HND etc.)	No	Yes
Professional Qualification (CA, ACCA, ACIB, CIM )	No	Yes
University (first degree)	No	Yes
University (second degree)	No	Yes
Others (Please specify)	No	Yes

D7. Which of the following constitute the main source(s) of the owner's savings?  
Please tick all the boxes which are applicable. Also, if possible, please provide an estimate of the percentage of your savings held in that type of source.

			%
Profits from this business	No	Yes	
Profits from other businesses	No	Yes	
Salary from formal employment	No	Yes	
Pension	No	Yes	
Remittance from abroad	No	Yes	
Inheritance/Gifts	No	Yes	
Others	No	Yes	
Total			100%



**SECTION E: LENDING RELATIONSHIP**

E1. Please provide below the list of lending bank(s) your business has a banking relationship with. Please indicate the branch, distance from the office and the duration of the relationship.

Name of institution	Branch	Distance from Office (km)	Duration of relationship (years)
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

E2. Of the above bank(s) which is your preferred bank? .....

E3. For your preferred bank which of the following relationship(s) does your business have with it?

Deposit relationship only	No	Yes
Deposit and credit relationships	No	Yes
Service relationship only	No	Yes
Credit and service relationships	No	Yes
Deposit and service relationship	No	Yes
Deposit and credit relationship	No	Yes
Deposit, credit and service relationships	No	Yes
Others (Please specify)	No	Yes

E4. Does your business deal with Non-Bank financial institutions?

No	Yes
----	-----

E5. If yes, which of the following do you have a working relationship?

Finance Companies	No	Yes
Insurance Companies	No	Yes
Brokerage Firms	No	Yes
Leasing Companies	No	Yes
Venture Capitalist(s)	No	Yes
Informal Sources	No	Yes
Others (Please specify)	No	Yes

**SECTION F: LOAN APPLICATION**

F1. How long has your business being doing business with your preferred bank?

F2. Do you get all the needed financing from your preferred bank and/or other banks?  No  Yes

F3. If this is not the case, by what percentage did you wish to increase your financing from banks? Please tick the appropriate box.

Less than 25%	Between 25% and 50%	Between 50% and 100%	More than 100%
---------------	---------------------	----------------------	----------------

F4. What percentage of the loan contract is the interest rate from the bank? .....%

F5. Did your business desire more credit at the current market rate?  No  Yes

F6. If yes, what conditions were acceptable in order to obtain more credit? Please tick the appropriate Box on each line.

The same interest rate and the same collateral	No	Yes
A higher interest rate but the same collateral	No	Yes
The same interest rate but more collateral	No	Yes
A higher interest and more collateral	No	Yes
Others (Please specify)	No	Yes

F7. Was the cost of credit from the bank higher than the market cost of credit?  No  Yes

F8. If yes, by what percentage was this variation in credit costs? .....%

F9. In the absence of the bank meeting your financing needs, which of the following do you rely on to meet your business' financing gap? And what percentage of the financing gap is met by the non-bank financial institution?

Finance Companies	No	Yes	%
Loans and savings companies	No	Yes	%
Brokerage Firms	No	Yes	%
Leasing Companies	No	Yes	%
Venture Capitalist(s)	No	Yes	%
Informal Sources	No	Yes	%
Others (Please specify)	No	Yes	%

F10. What percentage of the loan contract is the interest rate from the non-bank financial institution? .....%

F11. Was the cost of credit from the non-bank sources higher than the market cost of credit?

No	Yes
----	-----

F12. If yes, by what percentage was this variation in credit costs? .....%

**SECTION G: LOAN APPLICATION II**

G1. Was there any time in the past three years that you thought of applying for credit at a particular place but changed your mind because you thought you might be turned down?

No	Yes
----	-----

G2. In the last three years, in your loan/overdraft application from your preferred bank, which of the following occurred and how many times?

	Year 1	Year 2	Year 3	Total
No. of loan/overdraft application(s)				
Successful (full amount)				
Successful, but amount reduced				
Number of failures before success				
Never successful				
Others (Please specify)				
TOTAL				

G3. Please specify the reasons why you applied for loan from your Preferred bank/ other banks/ Non-bank/ other sources.

	Preferred bank		Other banks		Non-bank		Other sources	
	No	Yes	No	Yes	No	Yes	No	Yes
Low interest rate	No	Yes	No	Yes	No	Yes	No	Yes
Do not know any other possibility	No	Yes	No	Yes	No	Yes	No	Yes
Do not have any other possibility	No	Yes	No	Yes	No	Yes	No	Yes
Low borrowing fees	No	Yes	No	Yes	No	Yes	No	Yes
No collateral required	No	Yes	No	Yes	No	Yes	No	Yes
Longer repayment period	No	Yes	No	Yes	No	Yes	No	Yes
Personal relationship	No	Yes	No	Yes	No	Yes	No	Yes
Others (please specify)	No	Yes	No	Yes	No	Yes	No	Yes

Please specify the other sources.....

Please specify the non-bank(s).....

G4. In the last three years has your preferred bank or any other lender turned down any request that you made for credit or have you been unable to get as much credit as you applied for?

No	Yes
----	-----

G5. Please specify the reasons why your application was turned down by your preferred bank/ other banks/ Non-bank/other sources.

	Preferred bank		Other banks		Non-bank		Other sources	
	No	Yes	No	Yes	No	Yes	No	Yes
Low profitability	No	Yes	No	Yes	No	Yes	No	Yes
Unstable sales	No	Yes	No	Yes	No	Yes	No	Yes
Unstable output price	No	Yes	No	Yes	No	Yes	No	Yes
Lack of business information	No	Yes	No	Yes	No	Yes	No	Yes
Lack of collateral	No	Yes	No	Yes	No	Yes	No	Yes
High risks	No	Yes	No	Yes	No	Yes	No	Yes
Old machines/equipment	No	Yes	No	Yes	No	Yes	No	Yes
Poor management capability	No	Yes	No	Yes	No	Yes	No	Yes
Poor banking relationship	No	Yes	No	Yes	No	Yes	No	Yes
Poor track record	No	Yes	No	Yes	No	Yes	No	Yes
Others (Please specify)								

G6. What kind of information did you provide to the lenders in order to get the loans from your preferred bank/other banks/ non-bank/other sources?

	Preferred bank		Other banks		Non-bank		Other sources	
	No	Yes	No	Yes	No	Yes	No	Yes
Business plan	No	Yes	No	Yes	No	Yes	No	Yes
Past financial statements	No	Yes	No	Yes	No	Yes	No	Yes
Projected financial statements	No	Yes	No	Yes	No	Yes	No	Yes
Firm profile	No	Yes	No	Yes	No	Yes	No	Yes
Collateral	No	Yes	No	Yes	No	Yes	No	Yes
Additional information	No	Yes	No	Yes	No	Yes	No	Yes
Others (please specify)	No	Yes	No	Yes	No	Yes	No	Yes

G7. Has your preferred bank or other lenders declined your loan application because you could not provide the required business information?

No	Yes
----	-----

G8. Has your inability to provide the required business information lead to an increase in the cost of credit or a reduction in the amount of credit for your firm?

No	Yes
----	-----

G9. Do any of the factors listed below affect the price, amount and availability of your loan application?

Length of banking relationship	No	Yes
Type of banking services	No	Yes
Multiple banking relationship	No	Yes
Distance between firm and bank	No	Yes
Lack of adequate collateral	No	Yes
Type and location of collateral	No	Yes
Absence of business information	No	Yes
Others (Please specify)	No	Yes

G10. Various reasons have been outlined for small firm's failure to apply for bank credit. Which of the following factors in your opinion account for this?

No need for bank credit	Yes	No
Complex application procedures	Yes	No
Assumes that the application will be rejected	Yes	No
High interest rate	Yes	No
Increasing collateral requirement	Yes	No
Others (Please specify)	Yes	No

G11. How far is your business from your preferred bank? .....km

G12. How far is your business from the closest competitive lending bank? ....km

### SECTION H: LOAN APPLICATION III

H1. Banks pay particular attention to the following criteria for granting loans to small businesses. Which of these factors apply in your loan application?

Ability to repay	Yes	No
Profitability of project	Yes	No
Risk of project	Yes	No
Existence of collateral	Yes	No
Type of collateral	Yes	No
Value of collateral	Yes	No
Geographical location of collateral	Yes	No
Previous experience with borrower	Yes	No
Economic sector of project	Yes	No
Others (Please specify)	Yes	No

H2. Which of the following collateral types does your preferred bank accept and which of these do you provide in any loan applications?

	Collateral accepted by bank		Collateral provided by firm	
	Yes	No	Yes	No
Land	Yes	No	Yes	No
Home/Flat	Yes	No	Yes	No
Firm building	Yes	No	Yes	No
Plant and equipment	Yes	No	Yes	No
Vehicles	Yes	No	Yes	No
Credit guarantee schemes	Yes	No	Yes	No
Third party guarantee	Yes	No	Yes	No
Business savings	Yes	No	Yes	No
Financial instruments (T-bills, Shares, Bonds)	Yes	No	Yes	No
Others (Please specify)	Yes	No	Yes	No

H3. In the last three years, what is the most frequent method of communication by which your business conducts business with your preferred bank?

	Never	Occasionally	Often	Very often
In person	1	2	3	4
By phone	1	2	3	4
By fax	1	2	3	4
By mail	1	2	3	4
Others ( Please specify)	1	2	3	4

H4. Does your method of communication change with your bank as your relationship matures?

Yes	No
-----	----

H5. If yes, in which form is the method of communication changing to?  
From.....to.....

**THANK YOU FOR COMPLETING THIS QUESTIONNAIRE**



**Durham Business School**

**Centre for Entrepreneurship**

**Survey of Small Businesses in Ghana**

**2007**

**This survey is prepared to gain a better understanding of the problems faced by small businesses in Ghana.**

**All the information which you provide will be kept confidential and anonymous, and will be used only for academic research.**

## BANKS

1. Are you male or female?

Male	Female
------	--------

2. How many years have you been in banking? ..... years

3. What is your job title: .....

### SECTION A:

A1. Do any of the following factors influence your bank in lending to small businesses?

	Not Important	Little Importance	Very Important	Crucial
Level of the firms' capitalisation	1	2	3	4
Firm's profitability and cash flow	1	2	3	4
Firm's repayment ability	1	2	3	4
Value and location of collateral	1	2	3	4
Others ( Please specify)	1	2	3	4

A2. In financing small businesses which of the following factors will your bank consider?

	Not Important	Little Importance	Very Important	Crucial
Location of business premises	1	2	3	4
Condition of production machinery/equipment	1	2	3	4
Education and experience of key management	1	2	3	4
Marketing of firms products or services	1	2	3	4
Assets and liabilities of small businesses	1	2	3	4
Others (Please specify)	1	2	3	4

A3. Which of the following factors will your bank consider in financing small businesses?

	Not Important	Little Importance	Very Important	Crucial
Length of banking relationship	1	2	3	4
Types of financial services offered	1	2	3	4
Past track record of the small business	1	2	3	4
Satisfactory conduct of bank account	1	2	3	4
Business experience of entrepreneurs	1	2	3	4
Firms cash flow projection	1	2	3	4
Others (Please specify)	1	2	3	4



**SECTION B:**

B1. What kind of information does your bank require in order to process a credit application?

.....

.....

B2. What are some of the major challenges your bank faces in financing small businesses?

.....

.....

B3. In your opinion will any of the following technological development(s) contribute to a favourable loan application processing?

Improvement in communication with bank customers	No	Yes
Greater information availability eg. Small business data	No	Yes
Use of spreadsheet programmes, financial software and credit scoring	No	Yes
Improving site visit screening and monitoring of small business projects	No	Yes
Improvement in banking services and hours of service	No	Yes
Others (Please specify)	No	Yes

B4. How will your bank response to the excess demand for bank credit by its customers?

	Strongly disagree	Disagree	Agree	Strongly agree
Decline credit to entrepreneurs regarded as high risk borrowers	1	2	3	4
Decline credit to entrepreneurs because the bank is unable to obtain the required return at any interest rate	1	2	3	4
Use collateral requirement to induce a entrepreneur's higher effort	1	2	3	4
Increase collateral requirements to clear the excess demand	1	2	3	4
Keep interest rate low and randomly select loan applicants	1	2	3	4
Others (Please specify)	1	2	3	4

**SECTION C:**

C1. In processing credit applications of small businesses what are some of the major reasons for turning down loan applications?

.....

.....

.....

C2. In a credit application can the location of a business affect the interest rate, collateral requirement and the credit availability?

No	Yes
----	-----

C3. In screening credit applications of small businesses, does your bank use either an increase in interest rate or increasing collateral requirement or both?

No	Yes
----	-----

C4. Does your bank use both interest rate and collateral requirements to screen loan applicants?

No	Yes
----	-----

C5. Is it likely for your bank to experience risky borrowers even after screening?

No	Yes
----	-----

C6. Will any of the following factors influence your bank's decision in lending to small businesses?

	Not Important	Little Importance	Very Important	Crucial
Bank's inability to charge desired interest rate	1	2	3	4
Possibility of business reallocating bank loan into other projects	1	2	3	4
Inadequate information to process loan applications	1	2	3	4
Poor financial records and bank accounts of small businesses	1	2	3	4
Lack of collateral to secure loan application	1	2	3	4
Obstacles due to the business' size and the nature of business	1	2	3	4
Others (Please specify)	1	2	3	4

**SECTION D:**

D1. Will any of the following banking relationships with your customer influences the amount and price of a bank loan?

	Not Important	Little Importance	Very Important	Crucial
Deposit relationship	1	2	3	4
Credit relationship	1	2	3	4
Service relationship	1	2	3	4
Durable relationship	1	2	3	4
Multi-banking relationship	1	2	3	4
Others ( Please specify)	1	2	3	4

D2. In a banking relationship with your customers, which of the following factors do occur?

Gather valuable information about the entrepreneur	No	Yes
Distinguish between creditworthy and uncreditworthy entrepreneur	No	Yes
Use the information to refine the loan contract terms	No	Yes
Make a decision on the loan rate	No	Yes
Make a decision on collateral requirements	No	Yes
Others ( Please specify)	No	Yes

D3. Which of the following factors will influence your banks decision on a customer's loan contract?

	Not Important	Little Importance	Very Important	Crucial
Quality and trend of the entrepreneur's deposit account	1	2	3	4
Repayment ability of the entrepreneur	1	2	3	4
Purchase of bank's financial services	1	2	3	4
Entrepreneur's outstanding debt to the bank	1	2	3	4
Entrepreneur's outstanding debt to other banks	1	2	3	4
Others (Please specify)	1	2	3	4

D4. Does the rate of interest for small business' loan contract decline with the length of the banking relationship with your customer?

No	Yes
----	-----

D5. Does the degree of collateral requirement decline for small entrepreneur's loan contract with the length of the banking relationship with your customer?

No	Yes
----	-----

D6. Will credit availability for small businesses typically increase with the length of the banking relationship with your customer?

No	Yes
----	-----

**SECTION E:**

E1. In lending to small businesses which of the following collateral issues will your bank consider?

Type of collateral	No	Yes
Value of the collateral	No	Yes
Expected selling price	No	Yes
Disposal of the property	No	Yes
Others ( Please specify)	No	Yes

E2. Of the following types of collateral please indicate how important they are for your bank in making/accepting loan applications?

Collateral accepted	Not Important	Little Importance	Very Important	Crucial
Land	1	2	3	4
Home/Flat	1	2	3	4
Firm building	1	2	3	4
Plant and equipment	1	2	3	4
Vehicles	1	2	3	4
Credit guarantee schemes	1	2	3	4
Third party guarantee	1	2	3	4
Business savings	1	2	3	4
Financial instruments (T-bills, Shares, Bonds etc)	1	2	3	4
Others (Please specify)	1	2	3	4

Lower risk borrowers are bank customers who are less likely to default on a bank loan. Higher risk borrowers are bank customers who are more likely to default on a bank loan.

E3. In your opinion which of the following will occur in a small business loan application regarding the price of the loan and the collateral offered?

Lower risk entrepreneurs are willing to pledge more collateral with low interest rate	No	Yes
Higher risk entrepreneurs prefer higher interest rate with no collateral	No	Yes
Lower risk entrepreneurs are willing to pledge less collateral with higher interest rate	No	Yes
Higher risk entrepreneurs prefer lower interest rate with more collateral	No	Yes
Others (Please specify)	No	Yes

**Any other Comments:**

.....

.....

.....

.....

**THANK YOU FOR COMPLETING THIS QUESTIONNAIRE**

