

DETERMINANTS OF FLOW OF FORMAL CREDIT TO SMALL AND MEDIUM ENTERPRISES: A CASE OF SOCIAL CAPITAL AND SAVINGS MOBILISATION FOR MALAWI.

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Submitted in accordance with the requirements for the degree of Doctor of Philosophy



March 2015

To my family.....

DECLARATION

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Signed.....

Date.....30th March, 2015

STATEMENT 1

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SUMMARY

This thesis explores the role of social capital and domestic savings mobilisation, as demand and supply determinants of access to formal credit for small and medium enterprises (SMEs), in developing countries. The thesis provides evidence on how the domestic banking sector in developing countries can address information asymmetry between lenders and borrowers, and supply of loanable funds for SMEs, by considering other non-conventional determinants. The research focuses on Malawi, a developing economy in Sub Saharan Africa, to conduct micro-level and macro-level analyses. Analysis of cross sectional data uses probit models to reveal evidence of the effect of social capital on access to formal credit. Analysis of time series data uses vector autoregressive model to document evidence of the effect of domestic savings mobilisation on credit extended to the private sector by banks. The findings indicate that social capital is a determinant of access to formal credit and should be considered in credit risk assessments, for a more comprehensive process. The Findings also suggest that bank deposits influence credit provided to the private sector, providing evidence that domestic savings mobilisation also matters for economic growth in less developed countries. Evidence further suggests that although banks lend to the Government, the effect of the lending on mobilised deposits is not significant. The research recommends acknowledgement of, and more use of social capital, especially for first-time borrowers, to complement other quantitative risk assessment approaches. Initiatives to improve the flow of information between lenders and borrowers would not only improve access to credit but also increase savings mobilised domestically, to provide a readily available pool of funding for banks, and hence the supply of credit to enterprises, *ceteris paribus*.

RESEARCH DISSEMINATION

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CHAPTER 1 INTRODUCTION

1.1 Background

Worldwide, there are 2.5 billion people who do not have access to formal financial services (Cull et al., 2013), of which 80% live in Sub Saharan Africa (Demirgüç-Kunt and Klapper, 2012). Although the proportion is high, this does not mean Sub Saharan Africa is not servable, but rather, access to formal financial services is still a challenge. The effect of this challenge on economies is worsened through its effect on small and medium enterprises (SME), who significantly contribute to economic development (Kuntchev et al., 2012). Unavailability and a lack of access to credit for SMEs potentially constrain development and ultimately unattained Millennium Development Goal (MDG)¹ of poverty reduction. This is because a lack of access to external finance has been shown to obstruct human and physical capital accumulation (Beck and Demirgüç-Kunt, 2008: p.384). Therefore, for a deeper understanding, it is worth investigating the question of what causes the lack of access to finance for small and medium enterprises (SMEs). An answer to this question reveals determinants, which can be categorised as supply or demand side factors. This thesis examines social capital and savings mobilisation as the potential determinants.

On the supply side, investigation of the determinants of access to finance has focused on market design, regulation and market conditions (Beck et al., 2009; Claessens, 2006). On the demand side, the concentration has been on firm characteristics (Burger and Udell, 2002; Fatoki and Asah, 2011), neglecting savings mobilization (Mavrotas, 2005; Murinde, 2012) and social capital (Qizi and Hung-gay, 2006). Recent attention on the demand side factors has shifted focus to include subjective and psychological factors towards financial access and inclusion as potential determinants (Bauer et al., 2012). This thesis advances knowledge in the development finance literature in its conclusions that domestic savings mobilization, a supply factor, and social capital, a demand factor, are determinants of access to credit in developing countries. The evidence presented in this thesis focuses on SMEs because they play a significant role in economic growth (Kuntchev et al., 2012). Continued research on this subject is still a development priority because lack of access to formal credit is still a major problem affecting growth of SMEs (World Bank Enterprise Survey, 2010).

¹ International development goals established following the adoption of the United Nation millennium declaration <http://www.undp.org/mdg/>. These have now been preceded by Sustainable Development Goals.

1.1.1 Demand and Supply Nexus Focus

Microeconomic theory dictates that supply needs to equal demand to have equilibrium in the market place. It therefore follows that studying factors affecting demand for credit only cannot result into improved access or usage unless supply of credit factors are also considered. This thesis differs from the usual one-sided approach analysis, by considering both the demand and supply factors affecting access to formal credit, using a case study of a developing economy.

Despite vast research studies on availability and access to formal finance (Hall et al., 2000; Burger and Udell, 2002; Beck et al., 2005, 2006, 2009; Beck & Demirgüç-Kunt, 2006; Claessens, 2006; Fatoki and Asah, 2011), there are still unfilled gaps regarding factors affecting formal credit demand and supply. On the supply side, research has concentrated on affordability, availability, accessibility and designing of products in a flexible and reliable manner as the key factors (Claessens, 2006). Although ensuring an enabling environment and making financial services accessible is necessary, access would still not be guaranteed if financial institutions cannot easily and sustainably obtain the funds to lend. The demand side analysis has mainly cited firm-level characteristics as the key determinants (see Hall et al., 2000; Burger and Udell, 2002; Fatoki and Asah, 2011), with little attention on perceptions, behaviour and attitudes of users until recently (Bauer et al, 2012). Therefore, Social capital, defined as connections among individuals, social networks and the norms of reciprocity and trustworthiness that arise from them (Putnam, 2000: p.19), and domestic savings mobilization, are the variables of interest. Malawi is preferred as a case study because it is one of the few developing countries in Africa where credit reference bureaus are not yet fully functional. Therefore, the key research question to be addressed in this thesis is *‘What are the demand and supply determinants of access to formal credit for small and medium enterprises in developing countries?’*

Further evidence reveal that there is less documented research on demand side barriers (Demirgüç-Kunt and Klapper, 2012), to potentially reveal insights into viable solutions to the problem of access to financial services. Research has concentrated on understanding the visible (conventional) factors i.e. firm characteristics, deterring access to formal finance for SMEs, and ultimately economic growth and development. However, between 40% and 60% of economic growth is still left unexplained by the conventional ‘factors of growth’ (Easterly

and Levine, 2001). Evidence shows that the focus of economic growth determinants has largely been on natural, physical and human capital, and has paid little attention to social capital (Qizi and Hung-gay, 2006). However, focusing only on the conventional types of capital neglects a major component in the growth process, particularly because the way economic factors interact is not explained (Hjerppe & Kajanova, 2000).

On the supply side, although many developing countries depend on external flows (foreign aid, foreign direct investment, export earnings) to support their countries' developmental initiatives, tax revenues and savings mobilization are also other important sources worth considering. First, while the various sources of external flows may ideally complement each other, they also compete for attention and policy space (Aryeetey, 2009). Second, the 2007 global financial crises resulted into a drop of up to 36% of external flows, which negatively affected investment levels (Africa Economic Outlook, 2010). Finally, export earnings, among other factors, depend on quantity and quality of production as well as availability of markets outside the country, none of which can always be guaranteed. In the long run, domestic resource mobilization for Africa emerges as critical for building more resilient economies, implementation of own development agendas as well as fighting poverty (Africa Economic outlook, 2010). Despite tax revenues standing out as the major contributor to domestic resource mobilization, it is difficult for a number of developing countries to raise tax revenues due to the shallowness of the economic base, and presence of a large informal sector (Stotsky and Woldemariam, 1997; Ghura, 1998). Domestic savings are therefore an 'investable resource' compared to available alternatives, because the effect on growth operates through productivity (Aghion et al., 2009). Therefore, savings mobilization is a worthy sustainable source of domestically mobilized resources, and this thesis presents empirical evidence to that effect.

1.2 Aims and Objectives

The thesis aims to develop an evidence backed understanding of how the domestic banking sector in developing countries can resolve the problem of low access and utilization of credit for SMEs. This is done by considering social capital and domestic savings mobilization as key demand and supply factors. To do this, using Malawi as a case study, five objectives are formulated and are addressed in separate respective chapters as follows:

1. To contribute to knowledge on role of social capital in improving access to credit from commercial banks in developing countries (*Chapter 5*);
2. To examine and compare knowledge of factors hindering access to credit for SMEs among lenders and borrowers in Malawi (*Chapter 6*);
3. To explore factors affecting perception of small and medium enterprises regarding effect of social capital on access to credit from commercial banks (*Chapter 7*);
4. To analyse whether social capital affects access to formal credit for small and medium enterprises in Malawi (*Chapter 8*);
5. To examine whether savings mobilized domestically by the banking sector affect private credit in Malawi (*Chapter 9*).

The stated objectives are addressed using different methods and analytical techniques to suit the different tasks at hand (see Section 1.3 for details).

1.3 Methodology

The thesis adopts a mixed methods approach which combines both qualitative and quantitative approaches in a study (Creswell, 2009: p.5). Since both approaches are used in tandem, the overall strength of the study is greater than using either qualitative or quantitative research approach alone (Creswell & Clark, 2007). There are several designs of mixed methods to choose from which are categorized according to timing, mixing, weighting and theorizing (Creswell, 2009: p.204). Taking this into consideration and the deductive epistemology of the study design, a concurrent embedded strategy of data collection is employed, where both qualitative and quantitative data are collected simultaneously, with the quantitative data given priority. This is because associations and causality between variables require testing.

The analysis uses both micro-level and macro-level data to answer the stated objectives. This is done in order to capture both small scale individual-specific interactions, that can affect credit access behaviour, and large scale broader patterns and trends that can have an effect on credit access. To capture the extent of interrelationships among small and medium businesses and finance providers, a semi-structured and a structured questionnaire, is used to interview business owners or managers. Chapters 6, 7 and 8 describe in detail the analytical procedures and results from the surveys.

In Chapter 5 a literature review focusing on credit risk evaluation methodologies explores the hypothesis that social capital plays a role in facilitating access to formal credit. Chapter 6 uses descriptive statistics and analysis of variance to examine factors hindering access to credit. In Chapter 7 a probit principal component analysis is utilized to explore the factors affecting perceptions of SMEs regarding effect of social connections on access to formal credit. To document empirical evidence, in Chapter 8 a simple probit, a Heckman selection and multinomial models are used to test the hypothesis that social capital affects access to formal credit. In Chapter 9 secondary time series annual data of macroeconomic variables are used in a vector-autoregressive model estimation, to test for Granger causality between savings mobilized domestically, by banks, and private credit.

1.4 Significance of the Study.

This thesis fills the gaps in literature on access to finance in various ways. First, despite a growing body of research on determinants of access to finance, literature suggests that theories developed to explain SMEs financing decisions in developing economies are not always applicable in developing economies. This is because of institutional and cultural differences (Abor and Biekpe, 2007; Fan et al., 2010; Klapper et al., 2006; Nguyen and Ramachandran, 2006). Second, the few studies that have examined social capital and access to credit have either used macro level data for the analysis or analysed cases for emerging economies in other continents. However, evidence to date indicates that social capital is more valuable for developing countries (Wallis et al., 2004). Third, most research in this area has also concentrated on the role of social capital in reducing default risk in microfinance (Besley and Coate, 1995; Ghatak and Guinnane, 1999; Serageldin and Grootaert, 2000; Karlan, 2007; Feigenberg et al., 2010). Therefore, this thesis is a first attempt to explore the role of social capital in credit access from commercial banks and microfinance institutions, using micro level data for Malawi. The case study approach is used because country level analyses are recommended, and because case studies present a good starting point for the development of viable solutions to development problems (Hausmann et al., 2005; Filipe and Usui, 2011).

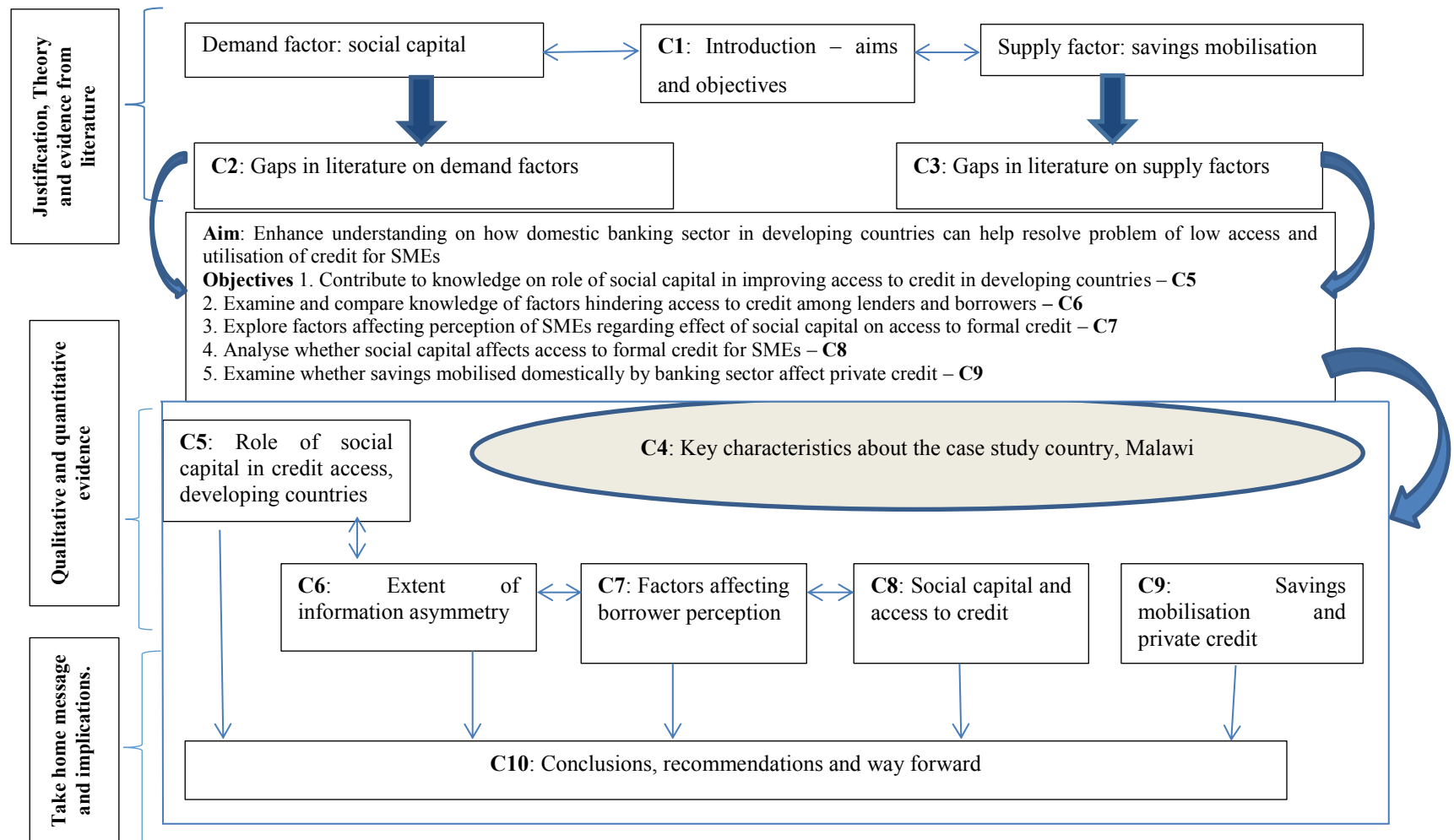
Fourth, it is widely being accepted that foreign aid will be insufficient to meet the Millennium Development Goals and sustain progress beyond the 2015 target date (Culpeper and Bushan, 2010). While there is an extensive literature on financial sector development and savings in developing countries, there is unsatisfactory research on the subject for Sub

Saharan African countries (Mavrotas, 2008). Specifically, studies on domestic resource mobilization have concentrated on analysing tax revenues and foreign direct investments, with far less focus on domestic savings mobilization (Mavrotas, 2005). However, it is costly to collect taxes from the majority of the population who have low taxable capacity. Additionally, a public perception of misuse of funds by state also creates unwillingness and mistrust to paying taxes (Fjeldstad and Rakner, 2003; Fjeldstad, 2006).

This thesis not only proposes evidence backed view points for consideration in development finance policy-making, but also academic insights, which contribute to the body of knowledge by providing evidence for Granovetter (1985) 'embeddedness' theory. This evidence is advanced through analysing how social connections enhance access to formal credit by the SME sector, in a developing economy. Increased levels of social capital improve conditions under which financial constraints are fulfilled. Granovetter (1985) argued that economic action is strongly embedded in social structure hence advocated for the study of social networks in the context of economic action. However, he did not go into details to provide evidence on the specific mechanism of how social capital affects economic action. This thesis provides evidence for such arguments by indicating that the positive impact of social capital on economic phenomena can happen through enhanced access to formal credit for SMEs.

1.5 Thesis Structure

In this thesis, each chapter addresses a specific issue and hence employs the most appropriate methodology for the task. Therefore, chapters have been written to a greater extent as independent pieces of work, which are interlinked but have a practical focus and a clear message for practitioners, policy makers and the wider audience. Despite an individual approach to chapters, all discussions are centred on understanding of factors affecting credit access hence some repetitions are not avoidable. A diagram representing how the chapters are interconnected is displayed in Figure 1.1



Note: C represents Chapter
Figure 1.1 Thesis Chapters Flow Diagram

Following this introduction, Chapter Two provides a literature review on demand factors affecting access to credit and the role of social capital in economic transactions. Chapter Three presents a macro-level literature review focusing on domestic resource mobilization, finance and development. These two literature review chapters reveal the gap in literature on use of social capital and domestic savings mobilization to improve credit flow for SMEs, which this thesis fills.

Chapter Four sets the scene by discussing the economic environment of the case country, Malawi. This is followed by Chapter Five which reviews literature and makes a case for considering social capital as a key factor in formal credit access especially for developing countries. It further compares effectiveness of the subjective nature of using social capital in credit risk assessment versus the objective approach. Chapter Six reveals further details on the problem of information asymmetry in Malawi. It also discusses the methodology followed in collecting data, which is used in the analyses for Chapters Six and Seven. Chapter Seven explores factors affecting perception of borrowers about effect of social capital on credit access. Chapter 8 uses data collected as part of a Business Registration Impact Evaluation (BRIE) project survey conducted by the World Bank, to provide evidence on the effect of social capital on access to credit for SMEs. Chapter Nine uses time series data to conduct a macro level analysis on effect of domestic savings on credit flow to the private sector in Malawi. Chapter Ten summarizes the thesis and provides recommendations and areas for further research. All tables and graphs in the chapters are own computations, except where reference is made to the source. The Appendices include questionnaires and further supporting documentation referred to throughout the thesis.

CHAPTER 2 MICRO LEVEL ANALYSIS: A LITERATURE REVIEW OF SOCIAL CAPITAL AND THE ECONOMY

There is a renewed interest in research on economic growth and its determinants. However, attention is shifting from the narrow definition of factors identified as ‘economic’, which include human and physical, to incorporate social capital. The basis for this inclusion is that societies are endowed with social, human and physical capital, hence the need to consider all forms of capital as predictors of long-run economic performance. This chapter discusses the literature on how social capital affects economic growth, and highlights gaps in research to consider it as a factor affecting access to credit for SMEs.

2.1 Why Focus on Social Capital?

Social capital matters for personal, society and economy’s well-being (Halpern, 2005: p.324). Therefore, research focus on social capital is worth undertaking simply because entrepreneurs are social beings. However, to gain a better understanding, a question of interest that arises is how such relationships affect wider developing economies’ national goals of economic growth and poverty reduction. Social capital is increasingly becoming a key discussion topic among politicians and academics, even though the term remains unfamiliar to the general public, and often there is confusion about what it is and how it is measured, even among those who use it (Halpern, 2005: p.1). Nevertheless, definitions, although needed, do not offer solutions. Uphoff (2000: p.216) argued that to understand social capital there is need to focus on components, relationships, and results, which are evaluated in a real world development experience. Growing interest is therefore accorded to the role that social norms, the diffusion of trust and logics of reciprocity play in shaping different transactions (Berg et al., 1995; Fehr et al., 1997; Frey, 1997; Fehr and Gächter, 2000; Bruni and Sugden, 2000). Studies have now built on this literature to address the relationship between economic development and social capital, and institutional patterns in an economy (Bénabou, 1996; Barro, 1996; Collier and Gunning, 1997; Knack and Keefer, 1997; Whiteley, 2000; Zak and Knack, 2001; Gradstein and Justman, 2002). Successful firms and regional economies show balanced investment between bonding (within firm), bridging (between firm), and linking (i.e. firms and regulators) social capital (Halpern, 2005: p.59). This confirms the need to study economic factors as well as social factors if development is to materialise.

2.2 Measuring Social Capital

The term social capital was recently coined, but it is an old concept (Bankston and Zhou, 2002; Lazega and Pattison, 2001; Putnam, 1995). Social capital is associated with concepts such as civil society and social connectedness (Adam and Roncevic, 2003). Since the introduction of social capital into social science research by Loury (1977), the works of Robert Putnam (specifically Putnam, 1993) launched social capital as a popular focus for research and policy discussion. Since then a number of research studies that span across disciplines have explored its implications, but have not reached a consensus on the definition² of social capital (Durlauf and Fafchamps, 2005). Despite lack of unified agreement on a definition, most contributors to this literature agree that social capital is network-based (Bourdieu, 1986; Lin, 2001; Coleman, 1988; Putnam, 1995; Dzanja et al., 2013). Criticisms on the elusiveness of the social capital concept are captured in Dasgupta (2000) and Durlauf (1999), with Arrow (2000) taking the extreme position of suggesting that the term ‘social capital’ should be abandoned.

The lack of consensus in defining social capital has resulted in researchers using different approaches to measure it. The debates and numerous clarifications have led to the suggestion that the concept of social capital is rooted in social networks and social relations, and hence it should be measured as such (Lin, 1999). A major characteristic of social capital is that it is relational, hence to have it a person must be related to others. The source of the person’s advantage lies in the social links they have with others, because social capital is in the structure of their relationships (Portes, 1998). Social capital can therefore be viewed in terms of the structural components (embeddedness), opportunity (accessibility) and action-oriented aspects (Lin, 1981; Burt, 1992; Portes, 1998, Lin, 1999). This is what enhances access to and use of social resources. These attributes ultimately contribute to a better socioeconomic status (Lin, 1981; Portes 1998), and hence advocating that social relations and networks should be the centre of analysis when analysing social capital. This is because certain network positions increase the chances of individuals getting better positions in an organization (Burt, 1992).

Empirically, evidence of impacts of social capital on socioeconomic welfare has also been studied across disciplines, for example, credit arrangements, irrigation management systems

² See Chapter 4 for a discussion of the various definitions.

and rotating savings and credit associations. Case studies on how local communities manage communal resources like forests, ponds etc. have also been used by other researchers (Ostrom 1990; Dasgupta and Maler, 1991; Bromley et al, 1992; Baland and Platteau, 1996). Other studies, emphasized in this chapter, have addressed the relationship between economic development, social, and institutional patterns in an economy (Barro, 1996; Collier and Gunning, 1997; Knack and Keefer, 1997; Whiteley, 2000; Zak and Knack, 2001; Gradstein and Justman, 2002). Using the World Values Survey data Knack and Keefer (1997) concluded that trust and civic cooperation have significant impacts on aggregate economic activity. A strong association between human capital and rate of growth was found by Whiteley (2000) using the same data as in Knack and Keefer (1997). In a study of rural Tanzania, Narayan and Pritchett (1999: p.274) concluded that variations in social capital at the level of the village influenced income levels more than equivalent changes in human or physical capital. In a study conducted in Malawi, it was also found that rural people have different social capital endowments which affect their economic welfare (Dzanja, 2010). Regardless of location and proxy measures, social capital generally affects economic outcomes in three ways; through flow and quality of information, as a source of reward, and punishment, and trust (Granovetter, 2005). However these outcomes can only be manifested when there is a connection between two or more individuals, which can be categorized as strong or weak ties.

2.3 Dimensions of Social Capital

Regardless of the availability of resources and opportunities, it is important for people to have diversified and supportive social connections if they are to be aware of the existence of the resources and opportunities within a society. Throughout an individual's social and career life, they make different kinds of relationships with different people, such as friends and relatives (strong ties), that reinforce their beliefs; and colleagues or acquaintances (weak ties), that help address a variety of specific needs. Strong ties are intensive and repeated, and weak ties are temporary and contingent (Heffron, 2001). Granovetter (1973), in his famous paper '*The strength of weak ties*,' concluded that weak ties are more efficient and effective channels of information than strong ties. An emphasis on the importance of weak ties is also well captured by Ronald Burt, the author of a book titled '*Neighbour networks: Competitive advantage local and personal*';

'The benefits of social capital created by social processes do not result from network structure directly but rather from the kind of person ego becomes by dint of the networks in which she or he operates. A person rich in social capital would be known as wise.' (Burt, 2000: p.53)

Increasing use of social media for business is also a further indication of importance of weak ties. In the 21st century, social media has grown rapidly in its use for both business and leisure. Social media websites like LinkedIn, Twitter and Facebook provide an opportunity to take advantage of the word of mouth communication channel. In this setup people are connected globally, which presents a huge influence on businesses in various ways.

Other dimensions of social capital captured in literature are bridging (vertical) between communities or organizations and bonding (horizontal) within communities or organizations (Woolcock, 1998, 2001; Narayan and Pritchett, 1999; Narayan, 2002; Dolfisma and Dannreuther, 2003). Bridging social capital emerges from weak ties and bonding social capital emerges from strong ties. However, both types are needed in an economy because a minimum level of bonding capital is required for bridging capital to emerge (Staveren and Knorringa, 2007). Too much bonding capital increases chances of exclusion for those that are not members of a grouping. This creates inequality in benefiting from social capital. Bridging social capital allows for economic transactions between two strangers to take place, which helps in reducing transaction costs arising due to incomplete contracts and uncertainty (Staveren and Knorringa, 2007). Uphoff and Wijayarathna (2000) further distinguish social capital into structural and cognitive. In structural social capital, mutually beneficial collective action is facilitated through recognized roles and social networks supplemented by rules, procedures and precedents (Hitt et al., 2002). Cognitive social capital influences people towards equally beneficial collective action, which includes shared norms, values, attitudes, and beliefs (Krishna and Uphoff, 2002). Despite the wider dimensions of social capital, the key principle of social linkages remains the same. The focus of interest for this thesis is not how different these linkages are termed, but how social linkages amongst individual market actors affect economic outcomes.

2.4 Social Capital and the Economy

Infrastructure which includes government culture and climate of a country is the underlying determinant of differences in output per worker across countries (Hall and Jones, 1996). One

infrastructure is social institutions, which are soft elements of individual productive units, and they protect individuals from diversion (acting contrary to expectation). An example of diversion prevention is depicted in how negative social capital attributes are used in thievery and mafia type of protection. In such cases members of the group rely on social capital to control diversion, and the individuals have no need to invest in other types of resources, because social control is cheaper. Hall and Jones (1996) discussed the example of a situation in a community where burglary is not socially controlled and property owners invest their resources in guards, building high fences around their houses or resort to mob justice to protect them. Ideally, to control burglary in this scenario, the community needs to be taught that stealing is wrong and that there is a real threat of punishment if one is caught stealing. The effective implementation of the regulatory framework and law enforcement in an economy should ideally strive to achieve this, all things being equal. However, when regulatory infrastructure fails to perform as expected, social infrastructure fills in the gaps. The same argument can therefore be applied to the market dynamics, which facilitate generation of profits and return to capital. If the market does not operate efficiently, due to market failures, institutional effectiveness and societal norms take on the challenge of facilitating transactions (Wallis et al., 2004). Social capital, therefore, affects economic outcomes, especially where there are market failures. Social relations can result in potential economic benefits for actors, who are engaged in relevant social relations (Baron et al., 2000; Grootaert and Bastelaer, 2002; Flap, 2004). These benefits are summarised as reduction in transaction costs, enhancing learning spill overs and enabling collective action. Social cohesion and government effectiveness facilitate coordination in complex production processes (Dayton-Johnson, 1999; 2003). However, to better understand the benefits, the key issue requiring careful analysis is when, where and how these benefits or costs arise for small groups at the expense or benefit of others in the wider economy.

Social capital is also recognized to have an indirect effect on increased human capital accumulation (Coleman, 1988; Knack and Keefer, 1997; Goldin and Katz, 1998: p.26; Narayan and Pritchett, 2000). Narayan and Pritchett (2000) noted that in Tanzania, villages with higher levels of social capital were more likely to adopt modern agricultural practices as well as undertake community road building projects. In USA social homogeneity and community stability enhanced human capital formulation because they formed the basis for high levels of social capital (Goldin and Katz, 1998; Wallis et al., 2004). Greater community participation in managing schools and greater access to informal credit for the poor are

facilitated through social capital's effect on human capital accumulation (Knack and Keefer, 1997). If human capital is not linked to social capital, it is both weakened as an analytical tool and as an asset because it is harder to acquire and its value is harder to realize. (Schuller, 2007; Unwin et al., 2005). Schuller et al. (2000) suggested that properly used social capital offers much for analysis in a range of fields for policy prescription. A literature analysis by Woolcock and Narayan (2000) concluded that social capital is viewed in four perspectives, which guides in how policy strategies are crafted. The major difference among the perspectives lies in the unit of analysis. Table 2.1 summarises the four views. Although a large body of literature has emerged from the network and institutional views, recent research is using the synergy view (Woolcock and Narayan, 2000), because it offers more opportunities to generate new ways of addressing issues from different disciplinary perspectives. This thesis contributes to literature on the synergy view.

Table 2.1 Perspectives on Social Capital and Policy Perspectives.

Perspective	Actors	Policy prescription
Communitarian (Local groups)	Community groups, voluntary sector	'Small is beautiful' – acknowledging social assets of the poor
Networks view (Bonding and bridging community ties)	Entrepreneurs, business groups, information brokers	Decentralisation, bridging social divides
Institutional view (political/legal institutions)	Private and public sector	Transparency, accountability, civil and political liberties
Synergy view (community networks, state and society relations)	Community groups, firms, state and civil society	Complementarity, participation, linkages, scaling up local organisations.

Adapted from Woolcock and Narayan (2000)

Although social capital cannot be reduced to a single independent variable, it is more appropriately theorised as a factor that influences both access to and productivity of other economic resources (Staveren and Knorringa, 2007). Because social capital affects the wider economy through various mechanisms, it could also influence access to formal finance for SMEs.

2.4.1 Social Beings Shaping Social Capital

The concept of social capital can be assessed at both individual and institutional level. However, regardless of the level at which it is being assessed at, the individual social being is at the centre of this concept. Social capital is built through accumulated networks. Therefore,

because the social bonds are formed through individual interactions, actions done by individuals can help define how social capital is utilised in economic transactions. Social capital enhances flow of information among market actors (Uzzi, 1990). In agreement, Lin (2007) also argued that the use of social capital in transactions works because it enhances flow of information. Generally, when there is trust between the parties to the exchange, flow of information is enhanced regardless of how such trust was built.

Social trust makes all kinds of social interaction run smoother (Uslaner, 2002). Trust is a source of social capital that sustains economic drive and government performance (Putnam, 1993). It is vital in the relational dimension of social capital (Nahapiet and Ghoshal, 1998). Future expectations may be based on mutual trust, which is a form of social capital (Coleman, 1988). This association between trust and social capital is a product of the relationship between sources of trust and sources of social capital (Adler and Kwon, 2000). Networks are a source of trust and social capital. Social capital is created by a network, where people facilitate connections between otherwise disconnected segments (Lin et al., 2001). Trust oils the wheels in such interactions, implying that social connections and trust are positively correlated (Glaeser et al., 2000). Social networks therefore, modify economic regulation because of the principle of solidarity that links the members (Granovetter, 1973; 1985). Unfortunately, the principle of solidarity can also create opportunities for rent seeking behaviours.

For example when parties to an exchange associate giving gifts or bribes, to the other party, with a positive outcome, it is an indication of destructive use of social capital. Bribery or giving gifts with an intention for favours usually happens amongst exclusive networks, and hence trust becomes of paramount importance. This observation is supported by Coleman (2000), who acknowledged that social capital can facilitate some actions which might not be useful, or can be unfavourable for others outside it. Social capital can also promote inequality, because access to different types of networks is unequally distributed (Field, 2003). The multifaceted quality of social capital therefore justifies the need to reflect on it closely, especially in its application in formal economic transactions.

2.5 Demand Factors Affecting Access to Credit

The World Bank Enterprise Surveys (2010) reveal that in low-income countries, on average 43% of businesses with 20 to 99 employees rate access to finance or cost of finance as a major constraint to current operations growth, compared to 11% in high income countries (World Business Environment Survey, 2000). SMEs are highly restricted in accessing capital which they require to grow, and banks on the other hand are hampered with lack of lender information and regulatory support to engage in SME lending (Hansen et al., 2012). This results in absence of a well-functioning SME lending market and negative consequences for SME innovation, economic growth and macroeconomic resilience for developing nations.

Research conducted around the developing world provides evidence that SMEs face greater financing hindrances than large firms (Beck et al., 2005, 2006; Beck & Demirgüç-Kunt, 2006), and yet they are a fundamental part of a dynamic and healthy economy (Kuntchev et al., 2012). Further research focused on SME at micro level has revealed firm characteristics (These include attributes such as firm's location, firm industry, firm size, firm age, firm's legal status and the availability of collateral and business information) as major determinants of access to credit for SMEs. A positive relationship is suggested between firms' location (Burger and Udell, 2002; Fatoki and Asah, 2011), firms' operating industry (Abor, 2007; Hall et al., 2000), firm size (Fatoki and Asah, 2011) and access to credit by SMEs. Other studies suggest that limited publicly available information about SMEs is a specific reason why such businesses face insufficient access to credit (Hartarska and Gonzalez-Vega, 2006). Surprisingly, given the importance of social capital (Woolcock and Narayan, 2000), few studies have considered social capital as a potential determinant of access to credit for SMEs.

A few recent studies have addressed the relationship between social capital and access to formal bank credit, although such an effect has been widely covered in microfinance (Bastelaer and Leathers, 2006; Karlan, 2007). Using a regional level variable, Guiso, Sapienza and Zingales (2004) concluded that social capital plays a role in determining financial development. Calderon, Chong and Galindo (2002) using World Values survey data, found that trust is positively correlated with financial development. Using the Finscope survey Uganda 2006 data, Heikkila et al. (2009) concluded that individual level social capital is positively associated with access to credit from financial institutions, while general trust did not significantly affect institutional credit. Another similar study conducted in

Uzbekistan, a post-communist economy, concluded that SMEs with a government connection are more than twice likely than those without to receive formal credit (Ruziev and Midmore, 2015). In a case of cassava growers in Nigeria, Iyanda et al. (2014) concluded that investment in social capital development increases the relative probability of having unconstrained access to credit. Dhufues, Buchenrieder and Munkung (2012) researched on individual social capital and access to formal credit in Thailand, and they concluded that the greater the number of socially higher ranking personal network members to whom one is connected through a strong tie, the fewer access constraints one is likely to face. Therefore, it could be concluded that informal relationships between a lender and a borrower provide a window of opportunity to enhance access to credit, through reduced transaction costs in private information gathering. Uzzi (1999) suggested that such solutions, which are prompted by exchange of private knowledge, are valuable because they are distinct and hard for competitors without private information, to imitate. Therefore in circumstances where many borrowers lack sufficient physical collateral, what would matter to have access to loans, is how trustworthy the institutions perceive potential borrowers to be (Heikkila et al., 2009).

2.6 Chapter Synthesis

This chapter has reviewed literature to expose the links between social capital and economic development. The egocentric view – connections that people have with one another in a network, and the social-centric view – person's position in a network, indicate how social capital is determined. This also implies that social capital is influenced by network theorists (Lin et al., 2001). The web of interpersonal networks which forms social capital results in human capital accumulation, innovation, enhanced flow of information and technology, skills acquisition and reduced transaction costs (Hall and Jones, 1999).

While this Chapter has concluded that social capital affects the economy, the question of where and how, still remains to be explored. Does this effect also happen through enhanced access to formal credit for SMEs? Is it worthwhile to explore its effect using SMEs? It is rather simple to answer yes to the second question, because SMEs significantly contribute to economic growth. However, further analysis to complement the literature review, is required to answer the first question. Since social capital is more valuable for developing countries (Wallis et al., 2004), it is therefore interesting and worthy exploring whether a lack of access to finance for SMEs, especially in developing countries, can be enhanced through use of

social capital. Social capital seems to matter the most when education levels are low and law enforcement is weak (Guiso et al., 2004), which is mostly the case with developing countries. The following Chapters, therefore, provide both theoretical and empirical evidence on how social capital can facilitate improved access to formal credit for SMEs. However, before that, Chapter 3 follows with a review of macroeconomic literature focusing on the factors affecting supply of formal credit.

CHAPTER 3 MACRO LEVEL ANALYSIS: SUPPLY FACTORS LITERATURE REVIEW

Finance is one of the key sectors for modern economies because its policies affect the wellbeing of all the productive industries (Beim and Calomiris, 2001: p.56). Small and medium enterprises (SMEs) are one such industry, whose performance is affected by supply and demand factors of access to finance. Financial sector development therefore affects economic growth through its effect on the SME sector growth and performance. Financial sector development in this case is broadly defined as a process of strengthening and diversifying provision of financial services to effectively and efficiently support requirements of economic agents, hence stimulating economic growth (Fleming et al., 2005: p.4). This chapter presents a review of literature on the relations between finance, savings and economic growth. It therefore, highlights the knowledge gap on the role of domestic savings mobilization in economic growth. The discussion begins with a review of theory on economic growth process.

3.1 Theories of Economic Growth

Growth theories consider how models offer different but related explanations to the process of economic growth. It has been established that economic growth reduces poverty (Ravallion and Chen, 1997; Dollar and Kraay, 2002; Bourguignon, 2004). However, a key question that arises is the extent to which the economic growth-poverty linkage is affected by other factors in an economy. Theoretical debate on how growth is achieved originated in the 17th century with Smith (1776) and later Ricardo (1817). They argued that specialization and division of labour leads to increased productivity and growth, although Ricardo pointed out that this is subject to diminishing returns, which results in a station state in the long run.

Twentieth century growth theories were to a large extent an extension of these theories. Particularly, in the 1930s to 1940s, the Harrod-Domar model prevailed with its prediction that national growth rates are directly proportional to level of savings and the capital-output ratio. In the model a closed economy is assumed with one homogeneous good (Y) produced, which can either be consumed (C) or invested (I)/ saved (S). Therefore, since labour and capital are fixed, there are constant returns to capital. The assumption was that labour and capital are the only factors of production, there are constant returns to scale, savings (S) is a

fixed proportion of income (sY), and that potential level of income is proportional to quantity of capital and labour. Therefore, mathematically,

$$S = sY \dots\dots\dots (3.1)$$

$$\text{Level of capital to produce output}(Y) \text{ is } K = vY \dots\dots\dots (3.2)$$

Where v is the capital output ratio. Investment, (I) plays a dual role in that it represents a component of demand as well as an increase in capital stock.

$$\text{Therefore, } K = vY \dots\dots\dots (3.3)$$

However, for equilibrium, supply has to equal demand

$$\text{Hence } I = S \dots\dots\dots (3.4)$$

$$\text{And } I = K = vY \dots\dots\dots (3.5)$$

$$\text{Therefore } vY = sY \dots\dots\dots (3.6)$$

$$\text{Equilibrium growth rate} = CY/Y = s/v. \dots\dots\dots (3.7)$$

The economy therefore grows when growth in capacity of economy to produce is matched by demand for the economy's output. Unfortunately, savings, capital-output ratio and growth rate are all constants in the model. The view that any discrepancies between the rate of growth in output and rate at which labour force grows is corrected by a change in the capital-output ratio, which was the basis for the neo classical growth model (Hardwick et al., 1999: p.509). Solow's (1956) Neoclassical Growth Theory built on the Harrod-Domar model by assuming diminishing returns to capital, hence leaving technological progress, an exogenous factor, as the only determinant for raising productivity and growth in the long run. This implied that policy makers were powerless to influence the rate of technological progress in an economy, on which growth was modelled to depend on. An alternative to this approach, termed the New Growth Theory, was launched by Romer (1986) and Lucas (1988) who proposed that growth is a function of level of knowledge which is sourced from research and development (R & D) and spill-over effects. However, Lucas (1988) emphasized the importance of human capital accumulation as a key driver to long run economic growth. Although, according to this theory, technological progress was an endogenous factor, this approach was not suited for developing countries whose target was to achieve economic growth in the short term (Pritchett, 2006).

Regardless of this criticism, the New Growth Theory stimulated researchers to investigate other endogenous factors that can be influenced by policy, to have an effect on growth (Spratt, 2008: p.49). One such factor is financial sector development. The important role played by financial sector development in economic growth can be traced back to Schumpeter (1911) who documented the important role banks play in facilitating the allocation of finance towards the most productive use, hence promoting economic growth rates. The existence of an efficient financial system, as an important ingredient of economic growth through research and development, is also taken into consideration by the endogenous growth models (Shah and Shah, 2011).

3.2 Financial Sector Development and Economic Growth.

The link between financial sector development and economic growth has remained an important issue of debate among policy-makers and academics since the early studies on the relationship by Goldsmith (1969), McKinnon (1973) and Shaw (1973). All these studies developed the Schumpeter (1911) line of thinking. Their findings, which were all based on cross country analysis, suggested that the level of financial development helps to predict growth. The poor economic performance registered in less developed countries was therefore a result of the repressive economic policies which were in place (McKinnon, 1973). Financial repression in this case referred to

‘the phenomenon where bank credit remains an appendage of certain enclaves, where ordinary government deficit on current account frequently pre-empt the limited lending resources of the deposit bank, and financing of the rest of the economy must be met from the meagre resources of money lenders, pawn brokers, and cooperatives’ (McKinnon 1973: p.69).

Governments repress their economies in six ways: imposing ceilings on interest rates; high reserve requirements; directing bank credit; micromanaging banks; restricting entry into banking industry; and restricting international capital inflows and outflows (Beim and Calomiris, 2001: p.47). McKinnon (1973) and Shaw (1973) demonstrated the dangers of financial repression, which included limiting the efficient allocation of resources, hence argued the case for maximum liberalization. The findings by McKinnon (1973) and Shaw (1973) emphasized the importance of formulating policies targeted at developing the

financial sector in order to foster economic growth (Ang, 2008), referred to as the ‘ financial structuralist view’. This, termed financial liberalization, was to be achieved through removal of the restrictions and promoting real rates on deposits and loans. Unfortunately this view did not yield much impact on policy formulation in the post-world war decades. This was due to the Keynesian ‘financial expressionist’ views, which postulated that there is no need to concentrate on interest rate incentives to boost savings, rather, incentives for investment which requires lower interest rates (Ang, 2008). Although Cho & Khatkhate (1989) concluded that the relationship between savings and interest rates is at best ambiguous, empirical evidence is documented which supports the need for investments to induce development, as opposed to the savings first approach to development (Giovanini, 1983; Gupta 1987; Greene and Villanueva, 1991; Demetriades and Devereux, 1992; Warman and Thirlwall, 1994; Bandiera et al., 2000).

The situation in developing countries, where per capita incomes are very low, speaks volumes on the challenges of relying on interest rates for the savings first approach. In case of Africa, even when the interest rates on deposits increase, the impact on the savings is minimal. This is because poverty levels, unemployment rates and the dependency ratios in most African economies are very high, compared to developed countries or emerging economies, where the McKinnon and Shaw hypothesis may be applicable (Misati & Nyamongo, 2011). Given issues of low income and high skewed consumption patterns, and structural deficiencies, which constrain government’s ability to raise revenue for financing development expenditure, interest rates can hardly be expected to play a significant role in savings mobilization (Adedeji, 1989). What is needed to initiate additional real investment is finance provided by an increase in bank loans. If financial liberalization does not increase aggregate savings, its positive impact on development must come through a more efficient allocation of resources, which raises the productivity of investment (Thirlwall, 2011: p.409). Therefore, it is of paramount importance to understand operations of the financial system as a crucial piece in the puzzle of linking financial sector development and economic growth.

3.2.1 Channels of Influence

Research on how financial development influences economic growth has identified two different and yet complementary channels through which financial sector development affects economic growth. The first is the total factor productivity (TFP) channel, which focuses on

role of innovative financial technologies in improving information asymmetries that hinder efficient allocation of funds, and monitoring of investment projects (Greenwood & Jovanovic, 1990; King & Levine, 1993b). The TFP channel is based on the Solow and Swan Neoclassical Growth model, which assumes that long-term growth is a result of innovation, human capital and physical capital accumulation, giving little attention to the financial sector (Ang, 2008). The other channel is through capital accumulation, based on the debt accumulation hypothesis of Gurley and Shaw (1955). This channel focuses on the financial sectors' ability to overcome indivisibility and mobilize savings which are transferred to productive sectors for investments, leading to accumulation of capital and hence economic growth.

The two channels are complementary because funds are efficiently allocated to investments through the financial system, *ceteris paribus*, and the financial system mobilizes savings for investment. However, Stiglitz and Weiss (1981) showed that banks suffer from the problem of adverse selection and moral hazard because of asymmetric information on the part of borrowers and lenders. The extent to which financial markets and institutions reduce these anomalies can lead to more efficient allocation of resources (Williamson, 1986; King and Levine, 1993b). Innovative financial products, therefore, help to deal with the information asymmetry problems and hence allow the financial system to mobilize and efficiently allocate resources for investment to achieve economic growth.

3.2.2 Empirical Evidence on Finance and Economic Growth

Poor rates of growth and development in developing countries may be caused by a multitude of factors, hence the need for a focused approach to policy making. One way of achieving this is by conducting growth diagnostics which help to clarify which strategies are most likely to be effective for a given economy (Thirlwall, 2011: p.171). Since financial sector development is positively correlated with economic growth (Gurley and Shaw, 1955; Goldsmith, 1969; Hicks, 1969), an answer to the fundamental question on the direction of causality would be a reasonable starting point for growth diagnostic. The 'causality' investigations used for such diagnostic studies follow the widely used causality test, developed by Granger in 1969.

Despite vast literature on direction of causality between financial sector development and economic growth, the debate on this nexus still remains unresolved (Lee, 2012). A number of empirical studies have been conducted with both varying methodologies and conclusions. On one hand, results by McKinnon (1973), King and Levine (1993a), and Christopoulos and Tsionos (2004) support the argument that the Granger causality (statistical test of causality based on prediction) runs from financial development to economic growth. The other argument is that economic growth Granger causes financial development, because of the high demand for financial services, which result from economic growth (Gurley and Shaw, 1955; Goldsmith, 1969; Jung, 1986). Even so Patrick (1966) reported that early-stage causality runs from finance to growth, which supports McKinnon (1973), but in later stages causality runs from growth to finance, which agrees with Gurley and Shaw (1955). Patrick (1966) concluded that during the early stages, growth is achieved through creation of financial institutions, which channel resources from traditional sources to modern sources (supply-leading hypothesis). Later higher growth creates needs for more financial services, and hence a demand-leading development (demand-leading hypothesis). However there is no clear guideline to indicate the actual years after which this switch is supposed to take place.

In a study of 109 developing countries between 1960 and 1994, Calderon and Liu (2003) concluded that although there are causal links running both ways between financial sector development and economic growth, financial sector development has a stronger effect on growth than economic growth on financial sector development. Yet another set of studies support the notion that there is bi-directional causality between finance and growth in all regions except sub Saharan Africa, East Asia and Pacific, where causality only runs from growth to finance (Shan et al., 2001; Hassan et al., 2011). Although there is a strong agreement about the interrelationship between economic growth and financial sector development, the empirical evidence shows a lack of consensus regarding the direction of causality. Possible explanation is varying methodologies and analytical techniques employed, and how country specific factors are captured during the analysis.

3.2.3 Methodological Inconsistencies in Empirical Causality Studies

Empirical studies on direction of causality between financial sector development and economic growth use different types of data, study area, as well as a variety of proxy indicators. Depending on the type of data used, existing empirical studies can be put into

three categories namely; pure cross-country, time series and panel studies. Purely cross-country and panel analyses mostly use growth equations, and time series usually adopt a vector auto-regressive (VAR) framework or a single equation error-correction framework (Ang, 2008). Pure cross country studies, mostly using Ordinary Least Squares (OLS) estimates, have been conducted with varying conclusions on the direction of causality (Goldsmith, 1969; Atje and Jovanovic, 1993; King and Levine 1993a; Demirgüç-Kunt and Makismovic, 2002; Levine, 2002). King and Levine (1993a) found that various indicators of financial development were positively correlated with real per capita GDP, the rate of physical capital accumulation and total factor productivity. Atje and Jovanovic (1993) concluded that stock markets have growth effects on economic activity. Contrary to this finding, Harris (1995) used two-stage least squares analysis to find that the stock market effect is weak in developing countries but has some effect on growth in developed countries. The level of financial development is therefore one variable that needs consideration in such analyses as revealed by Demirgüç-Kunt and Makismovic (1998). They concluded that a larger banking sector, active stock market and well-developed legal system enable firms to obtain external funds easily, which facilitates their growth.

The impact of the stock market and banking sector development on firms' growth is related to the level of development of a country's legal environment (Demirgüç-Kunt and Makismovic, 2002; Demetriades and Hussein, 1996; Arestis et al., 2002). Results for these researchers' assessment of causal links showed variations across countries', even when same variables and estimation methods are used. This indicates shortfalls in cross-section studies, where countries are treated as homogeneous entities. The cross-sectional method of analysis has also proven problematic because by grouping countries that are at different stages of economic development, it fails to address the country-specific effects of savings on economic growth, and vice versa (Caselli et al., 1996; Ghirmay, 2004; Odhiambo, 2008). Furthermore, the implicit assumption adopted by cross country studies reflects a one period static framework, and hence conclusions on long term behaviour are ungrounded (Ang, 2008). Economic development is a gradual process, and static analyses might not represent a fair long term picture of its dynamics. Ericsson et al., (2001) further emphasizes that cross-country analyses disregard levels relationship in the specification and hence estimate the short-run rather than long-run relationship. Therefore this aggregate level analysis fails to capture the complexities of financial environments, in each country, to reliably inform policy.

Research has therefore argued for country-specific time series in-depth studies (see Edwards, 1996; Ericsson et al., 2001, Kenny and Williams, 2001; Ang, 2007).

The first time series analysis on causality studies was conducted by Gupta (1984) who used industrial output as a proxy for economic development. He found causality to run from finance to development, using a VAR. However the proxy used does not capture a true picture of economic development, especially for developing countries where industrial output is minimal. Using Granger causality and VAR analysis, Jung (1986), reported a causality direction from financial development to economic development for developing countries and the reverse for developed countries. Contrary to this finding Choe and Moosa (1999), using annual data for South Korea, reported causality from finance to economic growth. Furthermore they reported that financial intermediaries are more important than capital markets in the causal relationship. Using the same framework of analysis but for Australian quarterly data, Thangavelu and Ang (2004) concluded that economic growth causes banking development when indicators related to financial intermediaries are used. However when financial market indicators are used, the study concluded that stock market is essential in fuelling economic growth. Similar observations are noted from Rousseau and Vuthipadadorn (2005) and Ang and McKibbin (2007), whose studies used annual data to conduct Johansen cointegration and vector error correction model (VECM) analysis, but with contrary results. The former study used data for 10 Asian economies while the latter was a case for Malaysia. Rousseau and Vuthipadadorn's (2005) conclusions supported the factor accumulation channel through which financial sector influenced economic growth. Ang and McKibbin's (2007) results supported the Robinson (1952) view that output growth leads to financial development, but not that a bank-based system induces growth in the real sector. Demetriades and Hussein (1996), in a study of 16 countries using VAR modelling of Engle-Granger and Johansen cointegration, found that financial development and economic growth showed a bi-direction causality implying that they are complementary. Bi-directional causality was also found using a VAR and VECM analysis for 10 developing countries (Luintel and Khan, 1999) and for Kenya (Wolde-Rufael, 2009). However, cointegration and error correction techniques applied to Kenya (Odhiambo, 2008a) revealed a unidirectional causal flow from economic growth to the financial sector, and further warned that any arguments that financial development explicitly leads to economic growth needs to be treated with extreme caution.

In recent years researchers have tried to work around the challenges posed by use of pure cross-section analysis with the use of panel estimation techniques. However, when unobserved country specific differences are included in the error term, the problems of limited data points and spurious regressions due to omitted variables still exist (Ang, 2008). The drive on use of panel data is towards analysing micro level data to gain more insights into how financial development and economic growth are related beyond the country level. Rioja and Valev (2004), using panel data from 74 countries, concluded that finance has a strong positive impact on economic growth mainly in countries with more developed financial systems, while in financially less developed countries the effect is less recognizable. Calderón & Liu (2003) found a bi-directional causality, but financial development contributed more to the causal relationship in developing rather than developed countries. The analysis used the Geweke decomposition test on pooled data of 109 developed and developing countries from 1960 to 1994. Rajan & Zingales (2003) found that financial development may play a crucial role in firms' growth by easing flow of external finance and their results have stimulated use of micro level data for such type of research.

Table 3.1 Finance and Growth Empirical Studies

Author(s)	Region/country & Type of data used	Analytical Technique Employed	Direction of Causality FD-Financial development EG- Economic growth
Demetriades and James (2011)	18 developing countries, panel (1975 – 2006)	Cointegration	FD to EG, no cointegration between bank credit and growth
Ahmed (2010)	16 Sub Saharan countries*, panel (1976 – 2005)	Cointegration and country specific using Granger causality and Johansen cointegration	Bi-directional on panel and unidirectional on country specific
Akinlo and Egbetunde (2010)	10 Sub Saharan countries, panel (1980 – 2005)	Vector error correction model (VECM) cointegration and Granger causality	FD to EG and bi-directional
Kar et al. (2011)	Algeria, Egypt, Libya, Morocco, Sudan, Tunisia, panel (1969 – 2005)	Seemingly unrelated regression and panel Granger causality	No clear consensus but FD to EG for Morocco only
Odhiambo (2008a)	Kenya (1969 – 2005)	VECM , Johansen cointegration	EG to FD
Odhiambo (2008b)	Kenya (1968 – 2002)	VECM	FD to EG
Simwaka et al. (2012)	Malawi	Vector auto regression (VAR)	EG to FD
Jung (1986)	56 countries(37 developing), time series	VAR and Granger causality	FD to EG
King and Levine (1993a)	80 countries, cross country	Ordinary Least Squares(OLS)	FD to EG
Rajan and Zingales	41 developing and	OLS and panel data fixed	FD to EG

Author(s)	Region/country & Type of data used	Analytical Technique Employed	Direction of Causality FD-Financial development EG- Economic growth
(1998)	developed countries, panel data	effects	
Ghali (1999)	Tunisia	VAR, time series	FD to EG
Jalilian and Kirkpatrick (2002)	Low income countries	OLS, panel and two-stage least squares	FD to EG
Calderon and Lin (2003)	109 developing and industrial countries*	Panel VAR, Geweke decomposition and Granger causality	Bi-direction but stronger from FD to EG
Abu-Bader and Abu-Quan (2005)	Egypt	Trivariate VAR, (VECM), Granger causality	FD to EG
Odhiambo (2009)	South Africa	Trivariate, cointegration based error correction mechanism, time series	Bi-directional
Christopoulos and Tsionas (2004)	Annual data for 10 developing countries	Panel VECM, panel cointegration, threshold cointegration and fully modified OLS	FD to EG
Houssein (2011)	6 from the OECD region and 4 from the MENA region	Panel data cointegration and GMM	FD to EG
Luintel and Khan (1999)	10 developing countries, time series	VARs, vector error correction model (VECM), Granger causality	Bi-directional
Demetriades and Hussein (1996)	16 Less Developed countries, time series	VARs, vector error correction model(VECM), Johansen cointegration, Granger causality	Bi-directional
Goldsmith (1969)	35 countries, cross country	OLS	FD to EG
Levine (1998)	42 countries, cross country	OLS and Generalised method of moment (GMM)	FD to EG

*Malawi included on list of countries

Interestingly, different conclusions from the empirical results not only arise due to differences in data types, country and analytical techniques employed (see Table 3.1), but also stem from variations in type of proxy indicators utilized to describe financial sector development or economic growth. Notably, when countries are grouped, the empirical results tend to be different from those obtained for specific countries (Rioja, 2004). Furthermore, results for countries within the same development level group still have different results, largely due to institutional factors and other structural characteristics in each country. For example Odhiambo (2008b), Ahmed (2010) and Akinlo and Egbetunde (2010), using multivariate and bivariate ECMs, found a bi-directional relationship between finance

and growth in Kenya, whereas, using a similar methodology, Odhiambo (2008a) found a distinct uni-directional causality running from economic growth to financial development.

The summary of research papers in Table 3.1 also indicates the gap in literature for empirical case studies for some countries in Africa. There is a concentration on studies in emerging economies, with fewer studies on low-income countries like Malawi. Previously such analyses were impeded due to data unavailability, but currently the World Bank, International Monetary Fund, African Development Bank and various other such institutions routinely collect data, which is now readily available for investigators. Due to improved availability of data, a proliferation of financial development and causality studies are bound to occur. Policies change periodically, hence research, which informs policy, need to continually take place to provide up to date information. Most research documented in Table 3.1 has used data capturing events up to 2005, although the analyses were conducted much recently.

The studies completed so far have made significant contributions to knowledge and policy formulation, hence development (Ang, 2008). However the issue of causality cannot be satisfactorily addressed in a simple broad comparative framework (Ahmed, 1998). Such a causal link is mostly determined by operations of financial institutions and policies being pursued by individual countries (Demetriades and Hussein, 1996; Demetriades and Andrinova, 2004). Therefore with the varying conclusions, a blanket statement that financial development contributes to output growth may be far from being qualified unless its validity is tested within specific cases. Hence more empirical case studies are required to shed more light on this issue (Ghirmay, 2004; Odhiambo, 2008; Ang, 2008).

3.2.4 Empirical evidence on credit supply factors

To understand how financial sector development affects economic growth at macro level, the focus of research turned to exploring determinants of credit access. Previous research on this topic focused on the role of financial liberalization, institutional quality, foreign bank penetration and financial development in alleviating small firms' obstacles to credit access (Beck et al., 2006; Laeven, 2002; Love, 2003; Clarke et al., 2001; Kabango and Paloni, 2010). Using data from 10,000 firms across 80 countries Beck et al. (2006) concluded that institutional development is a key factor in explaining country variation of firms' financing obstacles. Financial liberalization was found to affect small and large firms differently, using

panel data from 13 developing countries (Laeven, 2002). After controlling for institutional quality, fiscal imbalances and inflation, Ahmed (2013) found that financial liberalization positively affects financial deepening and resource mobilization in sub Saharan Africa (SSA) region. However, using data for Malawi, Kabango and Paloni (2010) showed that although financial liberalization results in an increased supply of credit, it does not remove financing constraints for micro, small and medium enterprises (MSMEs). Love (2003) concluded that financial development affects a firm's investment through their ability to obtain external financing.

Compared with the major research focus of financial development and economic growth nexus, research on savings mobilisation, as an additional factor affecting access to credit, has been neglected (Murinde, 2012). The urgent need for investment for development, especially during the 1990s in developing countries, has previously been addressed through structural adjustment programmes. However, these programmes generally failed due to poor policy environments of the recipient countries at time of intervention (Burnside and Dollar, 1997; Dollar and Svensson, 2000). Other strategies employed included use of development finance institutions, which mainly provided subsidized credit programmes for targeted sectors. Unfortunately, this strategy undermines the financial viability of the institution, because it cannot afford to source additional supply of funds at market rate. Overall, the documented efforts have also neglected small savers as a potential source for domestically generated funds (Mavrotas, 2005).

3.3 Economic Growth and the Financial System

Knowledge of the direction of causality is an important objective, but the ultimate goal in development is to achieve poverty reduction. One approach to achieving this is through economic growth driven by a financial sector development approach. An efficient financial sector reduces the cost and risk of producing and trading goods and services hence a significant contribution to raising standards of living (Herring et al., 1995). This is the rationale for devoting attention to understanding operational efficiency of the financial system, which is the heart of the financial sector. There are three prerequisites to enable financial sector development to lead to the virtuous circle of increased economic activity, sustainable job creation and poverty reduction. These prerequisites are efficiency in (1) mobilization of maximum domestic savings (2) channelling of the savings to the private

sector and (3) investment of the funds by the private sector as productively as possible (Spratt, 2008: p.366). The section proceeds with a discussion focusing on the first two prerequisites.

3.4 Financial Sector Efficiency

3.4.1 Domestic Resource Mobilisation

Financial development influences growth through better allocation of savings for improvements in technology, or by increasing domestic savings rates and attracting foreign capital for capital accumulation (Beck, Levine, & Loayza, 2000). Domestic resource mobilization is the generation of domestic resources, from public (taxation and other forms of public revenue), and private sectors (household and business savings) through financial sector intermediaries and the allocation to productive investment (Culpeper, 2008). Many developing countries depend on external flows (foreign aid, foreign direct investment, export earnings) to support their developmental initiatives. Unfortunately, the 2007 global financial crisis reduced donor and private external flows into African economies and worsened efforts to attract private capital (Aryeetey, 2009). During the global financial crisis years, it is estimated that the weighted average growth in the sub-Saharan Africa region dropped from 6.5% between 2002 and 2007, the highest in more than 30 years, to only 1 per cent in 2009, after almost a decade of strong performance (Aryeetey and Ackah, 2011). Although concerted efforts are being made to attract foreign resources in order to achieve planned development goals, unfortunately these efforts can divert effort from mobilising domestic resources (Adam and O'Connell, 1999). African economies, therefore, need to make deliberate policy moves to mobilize additional domestic resources to offset the reduced external flows and hence promote sustainable development (Aryeetey, 2009). Developing countries that have achieved and sustained high rates of growth have done so, to a larger extent, through the mobilization of their domestic resources. This also strengthens ownership of development strategies and accountability between governments and its citizens (Culpeper and Bushan, 2010).

In recent years extensive research has documented the relationship between finance and economic growth (Arestis and Demetriades, 1997; Caprio et al., 2001; Green et al., 2005; Guha-Khasnobis and Mavrotas, 2008). However the relationship between finance and

domestic resource mobilization has not been given much attention (Mavrotas, 2008). This neglected area of research has the potential to accelerate achievement of the Millennium Development Goals (MDG) if successfully implemented.

3.4.2 Financial System Functions

Facilitation of the linkage between financial sector development and economic growth is understood through the five functions of the financial system as categorized by Levine (1997). Notably all functions of the system are directly or indirectly related to resource allocation. These functions are:

- (1) Allocating resources - when financial intermediation is effective firms compete for savings. This not only benefits savers but also causes capital to be channelled to investment opportunities offering greatest returns (Beim and Calorimis, 2001: p.44).
- (2) Mobilizing savings – financial systems induce mobilization of savings through pooling together individual household savings for on lending (Ang, 2008).
- (3) Reducing risks – Since there are a large number of borrowers, financial intermediaries are able to offer services to suit varying liquidity preferences (Diamond and Dybvig, 1983).
- (4) Facilitating exchange of goods and services.
- (5) Exercising corporate control.

All financial institutions perform some of the related functions but only commercial banks perform all of the functions, and hence are responsible for evolution of all the functions. Since banks consist of the largest share of the financial sector in developing countries, measures of efficiency of the financial sector have mostly used the banking system proxies.

3.4.3 Measuring Efficiency

The financial system can be measured using four separate concepts, which are information arbitrage, fundamental valuation, full insurance and functional efficiency (Tobin, 1984). Information arbitrage measures the extent to which it is possible to gain from trading on the basis of available information. Fundamental valuation focuses on the extent to which asset market values accurately reflect the present value of future payments associated with investing in them. Full insurance measures the degree to which the financial system offers

ways of hedging against future risks (Fry, 1995: p.296). Functional efficiency makes an assessment of risk pooling, resource mobilization, general insurance, administration of the payment mechanism and mobilizing savings for investment. Bloor and Hunt (2011) described measurement of efficiency as analysing whether the financial system is helping to allocate resources to their best use (allocative efficiency); doing so in a cost-effective manner (technical efficiency); and whether it responds to both changing demand and uncertainty over time through the development of new financial processes, services and products (dynamic efficiency).

The allocative efficiency approach is the focus of discussion in this thesis. Other studies analysing financial system efficiency have used the institutional or sector lens approach where performance of institutions is compared within the country or with other countries (Bloor and Hunt, 2011). This research will take a functional approach analysis, because functions are less dynamic over time and across borders, as opposed to institutions which are also structured according to functions (Merton, 1995). The research community is increasingly accepting Stiglitz's (1993) suggestion that financial markets are the 'brain' of the entire economic system – if they work, economic performance will be enhanced, but if they fail, the performance of the entire economic system may be hampered. Many analysts accept the importance of the 'brain', but do not fully understand how it works (Tennant, Kirton, & Abdulkadri, 2011).

3.5 Chapter Synthesis

This chapter has reviewed macroeconomic literature to highlight evidence on the role of financial sector development in economic growth, and to highlight the research gaps in this discourse, which this thesis fills. The financial sector generates a significant impact on economic growth by mobilizing savings and ensuring efficiency in resource allocation. The need to focus attention on how efficiently a system performs this function can, therefore, not be overemphasized. Evidence to inform policy of the extent to which the financial systems in developing countries can effectively mobilize domestic resources for investments, which is of paramount importance, is lacking.

Empirical studies on how the financial sector reform policies have impacted on improving savings mobilization in African countries have been limited, despite the need for evidence to

inform policy. This kind of investigation has mostly been conducted in South Asian and Latin American countries, leaving some of the poor countries in Sub-Saharan Africa with little or no attention (Odhiambo, 2009). To contribute to this strand of literature, on determinants of the supply side of formal credit, Chapter 9 uses time series data for Malawi (1985 – 2011) to estimate the direction of causality between domestic savings mobilization and private credit. The thesis proceeds, with a description of the economic environment for Malawi, to set the scene for the analysis in subsequent Chapters.

CHAPTER 4 MALAWI SMALL AND MEDIUM ENTREPRISE CREDIT ENVIRONMENT

This chapter sets the scene for the case study country, to appreciate the volatile economic environment in which small and medium enterprises (SMEs) operate. The economic environment presents both opportunities and challenges necessitating the use of innovative, or unconventional, approaches to enhance access to credit for SMEs. The chapters, that follow hereafter, complements the content discussed in this chapter, by providing a more detailed and focused analysis, to document evidence, on social capital and domestic savings mobilization as potential supply and demand factors affecting flow of formal credit to SMEs.

4.1 The Recent History of the Financial Sector

Until the 1980s, the financial system in Malawi was characterized by heavy regulation through credit and interest rate controls. In 1981, the Malawi Government embarked on financial liberalization under the International Monetary Fund (IMF), and the World Bank supported structural adjustment programmes, which saw the removal of restrictions on interest rates charged by banks (Chirwa, 2001). The effective start of the reforms were in 1989, when the Reserve Bank Act and Banking Act were revised (Chirwa & Mlachila, 2004). Since 1990, a number of policies were implemented including deregulation of deposit rates, removal of credit ceilings and rationing, liberalization of lending rates, and devaluations (Chirwa, 2001).

Prior to liberalization, the financial sector consisted of a central bank, two commercial banks, two finance institutions, and one savings bank. Over 15 years on, the financial sector in Malawi, comprises of a central bank, thirteen depository corporations designated into commercial banks, merchant banks, a leasing and finance company and savings banks, two discount houses, one stock exchange with fourteen companies listed, various microfinance institutions (MFIs), and insurance companies (Reserve Bank of Malawi, 2011). Despite the notable increase in the number of financial institutions, the non-bank financial institutions make up a bigger proportion, in terms of service provider numbers and geographical coverage, than the banks. The non-bank financial intuitions are categorised into Microfinance³, capital markets⁴, insurance and pensions⁵. Microfinance comprises of

³ Includes deposit taking, non deposit taking and commercial banks with a microfinance window.

microfinance providers, totalling 40, and savings and credit cooperatives totalling 49 (Reserve Bank of Malawi, 2013). Among the thirteen registered banks, only two are government owned, and five banks have foreign majority ownership. Presence of foreign owned banks can enhance operating efficiency because foreign participation improves the efficiency of domestic banking (Claessens and Lee, 2003; Clarke et al., 2001). However, differences of such an effect exists between developing and developed countries, due to differences in the customer base, bank procedures and tax regimes (Claessens et al., 2001).

Financial sector development helps predict economic growth (Goldsmith, 1969 ; McKinnon, 1973; Shaw, 1973). The level of financial sector development in Malawi is still low as measured by liquid liabilities as a percentage of GDP (2007), and domestic credit as a percentage of GDP (2008). According to the World Bank development indicators online database, these indicators are 21.97% and 26.19% respectively for Malawi, compared with Kenya (43.29% and 40.09%) and Japan (203.55% and 293.00%). However, despite the low level of development of the sector, the country experienced high and increasing economic growth rates in the years between 2004 and 2009. This increase is mainly attributed to macroeconomic stability, effective input subsidy programme, improved policy coherence and strengthened national ownership of development policy (Overseas Development Institute, 2011). In 2008, Malawi experienced a growth rate of 7%, which was higher than several other Sub-Saharan Africa countries, including South Africa, Namibia and Botswana (African Economic Outlook, 2011). Two years later, growth declined sharply in 2010 to 6.7% from 8.9% in 2009, because of a poor agricultural season. Growth fell further in 2011 to 5.8% in 2011 as a result of a suspension of the International Monetary Fund Extended Credit facility programme. This resulted into reduced inflows from other major donors, foreign exchange difficulties, and shortages of essential commodities like fuel and inputs for manufacturing. The slowdown continued in 2012, when the country registered a growth of 1.2% with a rebound of 5% growth in 2013. Growth projections for 2014 and 2015 are 6.1% and 6.2% respectively (African Economic Outlook, 2014). Malawi's financial system is considered one of the less developed by developing country standards, however it is also one of the relatively small number of developing countries where financial liberalization has not been followed at some point by a banking or financial crises (Kabango and Paloni, 2011). This could be

⁴ Comprises of one stock market, eight investment/portfolio managers, four brokers and one investment trust.

⁵ Comprises of general insurance, life insurance, reinsurance, funeral assistance benefit companies, and several brokers and agents.

because of the fairly stable financial sector, and limited bank exposure to credit risk resulting from low credit provision due to information asymmetry between lenders and borrowers.

In September 2013, a revelation of robbing public funds through the Integrated Financial Management System (IFMIS), known as ‘*cash-gate*’, worsened the macroeconomic challenges. This disclosure resulted in suspension of budgetary support with adverse effects. Malawi’s aid per capita is US\$ 68.6, which is much higher than other countries in Africa (US\$42.1) or Southern Africa (US\$44.5) (ADB, 2012). This implies that the country is vulnerable to fluctuations in donor inflows. The withholding of budgetary support however forced the Malawi government to focus on domestic resource mobilisation to implement a zero aid budget. The financial sector, which is mostly composed of commercial banks, relies on deposits from surplus sectors of the economy, to provide credit to deficit sectors. Figure 4.1 and Figure 4.2 indicates the sources and uses of funds for commercial banks in Malawi. Deposits mobilised from the private sector (includes households) contributed 68 % to the total available funds in 2013.

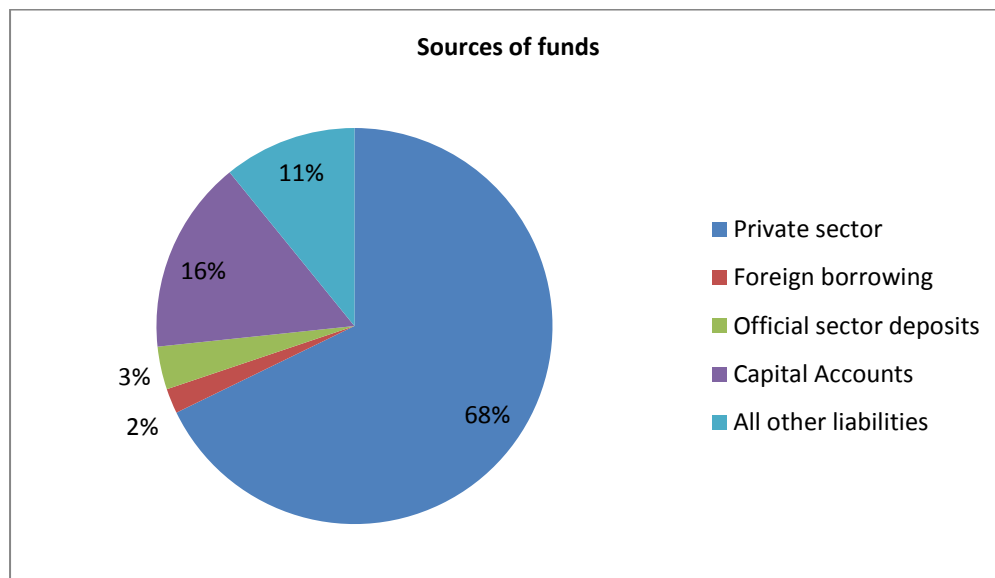


Figure 4.1 Sources of Funds for Commercial Banks in 2013
Source: Reserve Bank of Malawi (2013)

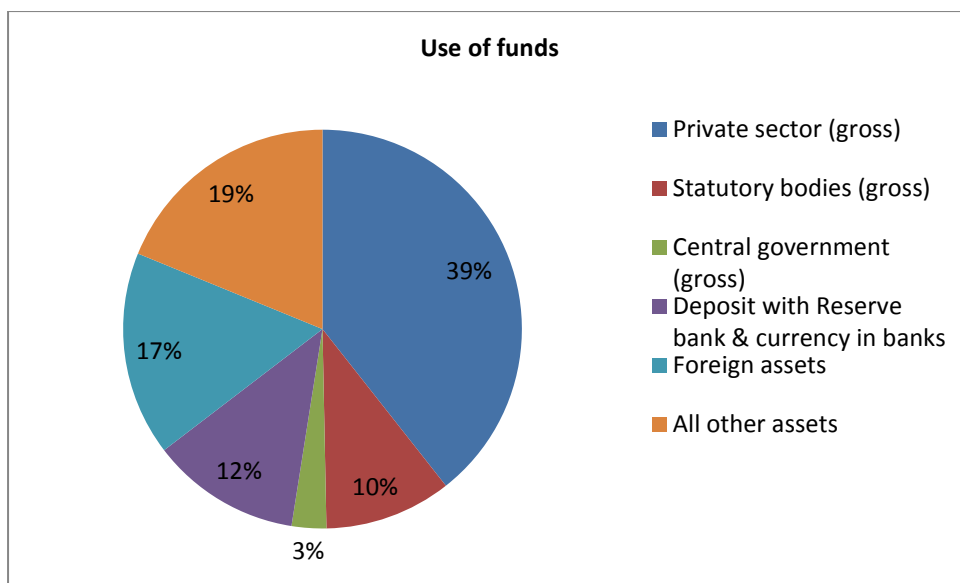


Figure 4.2 Use of Funds by Commercial Banks in 2013

Source: Reserve Bank of Malawi (2013)

A similar picture is observed in the uses of funds which indicate that the largest proportion (39%) of the available funds was invested as credit extended to the private sector in 2013. This was probably because donor inflows supported part of government expenditures, and hence reduced borrowing from commercial banks. Lending interest rates in that year averaged 20%, compared to 32% in 2012, which encouraged investors to borrow. Unfortunately revelations of the ‘*cash-gate*’ scandal resulted in suspension of donor flows and hence a tough macroeconomic environment. However, despite the challenges, Malawi is among the few countries whose economic growth grew in the midst of the global financial crises (Aryeetey, 2009). Malawi recorded a good performance in 2011 with total stock liabilities jumping from US\$1,319.5 million to US\$2,887.0 million indicating that the economy was not affected much by the first round of the global financial crisis (Reserve Bank of Malawi, 2011). This was largely due to negligible participation on global financial markets. The negative effect was however experienced later in the form of reduced aid, commodity exports and remittances.

4.2 The Economy

Malawi is one of the least developed countries in the world with a nominal GDP per capita (current US\$) of \$226, according to the World banks’ 2013 World Development Indicators database. In 2014 it was ranked 178 out of 187 on the Human Development Index. However,

Malawi is a new and recognised example of progress in economic conditions (ODI, 2011). For example, the country ranked among top 20 performers in absolute and relative progress, in terms of human development Millennium Development Goals (MDG) indicators (ODI, 2010). Geographically, it is bordered by Zambia to the northwest, Tanzania to the northeast, and Mozambique on the east, south and western side (see map of southern Africa in Figure 4.3).



Figure 4.3 Map of Southern Africa

Source: <http://teacherlink.ed.usu.edu/tlresources/units/byrnes-africa/susbuc/image.gif>

The country has an estimated population of 16 million, out of which 39% live below \$2 a day (National Statistics Office, 2008).

4.2.1 Sources of Income

Since independence Malawi has largely been dependent on aid, which is not sustainable. Figure 4.4 indicates that the gross capital formulation has consistently been greater than gross domestic savings since 1960s, indicating a reliance on external flows to finance investments.

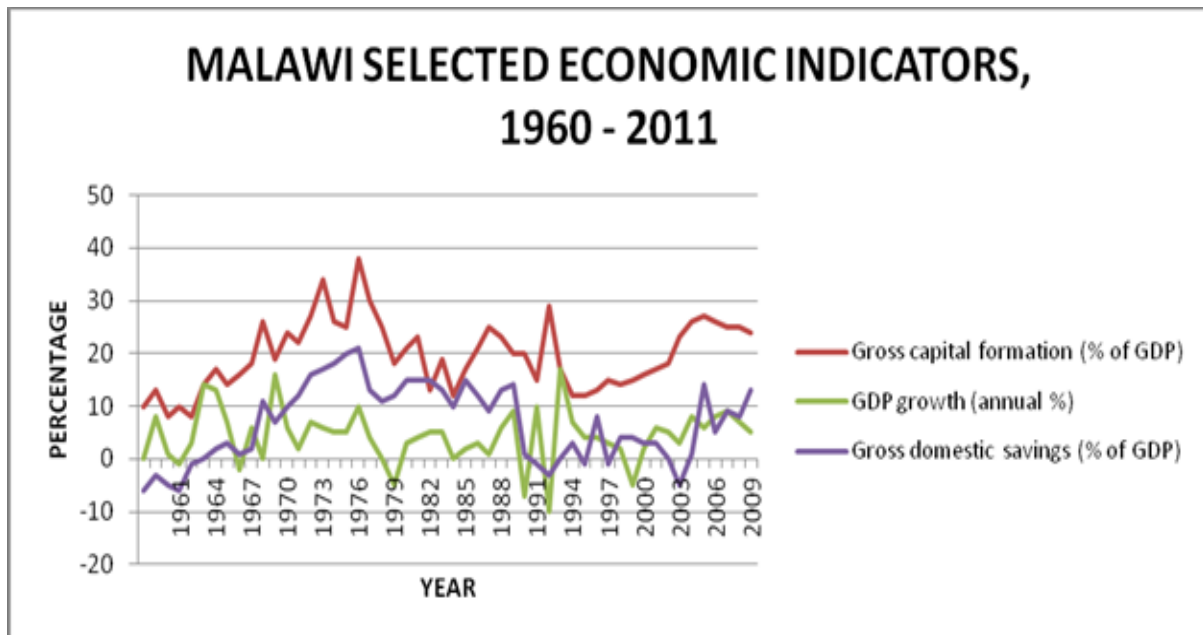


Figure 4.4 Selected Economic Indicators for Malawi, 1960 - 2011

Source: World Development Indicators, <http://data.worldbank.org/country/malawi>

A stable macroeconomic environment is essential for an economy's growth. According to the Reserve Bank of Malawi, lending interest rates have averaged 36.7% between July 2012 and April, 2015. This is considerably high compared to rates prevailing in other African countries. Although, businesses have different cost structures which affect profit margin levels, on average lending interest rates of greater than 20% is considered high. High interest rates adversely affect a borrower's ability to service loans, and hence put pressure on the stability of the financial system. While most central banks in developed and emerging economies are cutting or holding interest rates, it is a different story in the rest of the world. Malawi is in the top 5 group of countries with the highest interest rates in the world⁶. Additionally, according to the World Bank, Malawi was ranked 164 out of 189 economies on the ease of doing business index in 2015. This indicates a poor regulatory environment for doing business.

A majority (85%) of the population live in rural areas. Agriculture is the dominant sector contributing to the economy. It contributes 38% of GDP, accounting for 90% of the country's exports, and employing 85% of the labour force (Finscope, 2012). Despite the high contribution to the economy, total lending, from the financial sector to agriculture, is estimated at only 8.5% (Darroll, 2012). The need to support this sector is also pointed out by

⁶www.tradeeconomics.com.

Wiggins and Keats (2013) who suggested that in most low income countries of Africa, development needs to include the majority smallholder farmers, who farm at low productivity, in yields per hectare or returns to labour, yet often the technology already exists to greatly increase productivity. This technology is often unused because these smallholders lack effective links to markets for produce, inputs and credit (Wiggins and Keats, 2013). The other key sectors of the economy are listed in Table 4.1.

Table 4.1 Gross Domestic Product by Sector

Sector	Percentage contribution	
	2008	2012
Agriculture, hunting, forestry, fishing	33.1	30.7
Mining	0.9	5.3
Manufacturing	11.3	9.9
Electricity, gas and water	1.5	1.4
Construction	3.0	3.0
Wholesale and retail trade, hotels and restaurants	19.5	18.7
Transport, storage and communication	6.0	6.0
Finance, real estate and business services	12.7	13.2
Public administration, education, health and social work, community, social and personal services	3.6	3.4
Other services	8.4	8.4
Gross domestic product at basic prices / factor cost	100	100

Adapted from Malawi- Africa Economic Outlook (2014)

An estimated 22 percent of GDP contributed by trading and retailing activities, is mostly linked to the rural economy. Estimates indicate that rural based micro and small scale economic activities generate nearly two-thirds of overall business turnover (Darroll, 2012). However, it is also the same businesses that are poorly served by formal financial services. Despite the low access to formal financial services, the national statistics office Welfare Monitoring Survey of 2008 reported that out of 6,100,000 of the labour force, only 440,000 (8%) work in the formal sector. This leaves out 92% either employed in subsistence farming, informal sector, under-employed or unemployed. These statistics demonstrate the importance of entrepreneurship to the development and growth of Malawi. Further evidence is also observed in the way business networking groups have mushroomed. The number of registered business associations has doubled since 2005 to date. Most of these associations are group specific, to ensure that common issues of concern are raised with one voice. For example national association of small and medium businesses in Malawi, national association of business women (NABW), Malawi union for the informal sector, National association of smallholder farmers in Malawi (NASFAM), poultry industry association of Malawi,

Kasinthula cane growers association, minibus owners association of Malawi etc. Although such networks present an opportunity to enhance business members' access to various services, little evidence is documented on how effective such capital is utilised.

4.3 Regulatory framework

The regulatory framework for financial services in Malawi has recently been extended by the following legislations; Banking Act (2010), Financial Services Act (2010), Pensions Act (2010), Financial Cooperatives Act (2009), Microfinance Act (2009), Payment Systems Act and the Credit Reference Bureaux Act (2009) among others. In April 2011 the Pensions Act (2010), which makes pensions mandatory in Malawi, was assented into law. It is envisaged that eventual contribution rates of 10 percent of earnings by the employer and 5 percent by the employee (with administration fees and the costs of compulsory life insurance separately covered by the employer) will result in a significant increase in current levels of household saving. It is further expected that the enactment of these laws will pave the way for greater legitimacy within the sector, which is in the interest of better performing institutions that are not necessarily willing or able to transform themselves into commercial banks. The legislation further allows for non-bank forms of financial institution, including microfinance, to be regulated as deposit taking, non-deposit taking or purely credit granting institutions. This creates more room for regulated deposit mobilization, especially from the unbanked sectors of the economy (Malawi Microfinance Network, 2012).

4.4 Small and Medium Enterprises and Banking

Malawi's private sector is characterized by a 'missing middle' with very few SMEs accessing credit, in contrast with the numerous micro and few large enterprises (African Development Bank, 2011). There is a gap between booming microfinance activities, which serve the micro level, and formal institutions which serve mostly large enterprises. One reason for such a gap is limited publicly available credit information about SMEs, which results in businesses facing insufficient access to credit (Hartarska and Gonzalez-Vega, 2006). Most businesses in Malawi are small and informal (Finscope, 2012), largely due to an unfavourable business environment, which makes it difficult for them to access formal credit, among other factors. Notably, a major challenge of access to finance affects SMEs more than large enterprises in

developing countries, largely because the SMEs are less exposed to banks and hence are charged higher interest rates and fees (Beck et al., 2008b).

According to the 2012 Malawi Finscope survey, there are 760 000 small business owners, which generate annual revenue of US\$2 billion. However, 60 per cent of these businesses do not use formal financial services. Close to seventy five percent of small business owners in Malawi do not borrow from formal sources, because they are wary of their ability to repay the loan. The largest source of credit for small businesses is friends and family, followed by village bank or cooperatives, with only 2.6 per cent relying on informal mechanisms (money lenders), and another two per cent having loans offered by a bank (Finscope, 2012). A 2012 survey, conducted by Bankable Frontier Associates, documented that only 19% of the population in Malawi, mostly residing in urban areas, has access to formal banking services. A further 19% is served by the informal credit providers. Further indicators of access to financial services are presented in Table 4.2. Overall access to formal financial services is low, with a large proportion of the population aged 15 years and over relying more on family and friends for credit than from formal institutions.

Table 4.2 Selected Financial Inclusion Indicators

Financial Inclusion indicators for year 2011	Percentage
Loan from a financial institution in the past year (% age 15+)	9.19
Loan from family or friends in the past year (% age 15+)	43.97
Loan through store credit in the past year (% age 15+)	3.20
Account at a formal financial institution (% age 15+)	16.54
Account at a formal financial institution, older adults (% age 25+)	20.15
Account at a formal financial institution, young adults (% ages 15-24)	10.27

Source: Global Financial Inclusion Index Database, World Bank

The World Bank 2014 Global Financial Development report also documented that two thirds of regulatory and supervisory institutions are now charged with enhancing financial inclusion. This is also in accordance with the Maya Declaration, to which Malawi is a signatory. The Maya Declaration is the first global and assessable set of commitments made by emerging and developing countries to unlock the economic and social potential of the ‘unbanked’ population through increased financial inclusion. The declaration has been endorsed by 80 institutions from developing and emerging economies, which represent 75% of the world’s unbanked population (Alliance for Financial Inclusion, 2006). It aims to create an enabling environment that increases access and lowers costs of financial services;

implement a proportionate regulatory framework that balances financial inclusion, integrity, and stability; integrate consumer protection and empowerment as a pillar of financial inclusion; and use data to inform policies and track results. In line with the global initiatives to enhance financial inclusion, Malawi has developed policies and regulations to support scaling up of innovative products (Reserve Bank of Malawi, 2012). Two major policy frameworks that guide implementation are the National Payment System vision 2009 – 2013 Strategy Framework and the National Strategy for Financial Inclusion in Malawi.

A number of measures have also been instituted by the Government of Malawi (GoM), Reserve Bank of Malawi (RBM), a member of the Alliance for Financial Inclusion (AFI), and other stakeholders. The measures aim to strengthen the financial sector, and create an enabling environment for financial services provision. Some of the notable developments include variations in service points operations. Banks operate a range of full service branches, sub branches, kiosks, agencies, mobile branches and automated teller machines (ATM). Since 2008, when one bank rolled out mobile branch banking services, three commercial banks have introduced mobile banking services, where a van makes visits to trading centres on strategically chosen days of the week, to offer banking services. As of December, 2010 the total number of operating branches for all banks was seventy two, with agencies/kiosks totalling 146 (Reserve Bank of Malawi, 2010). In addition to an increase in operating centres, there has been a proliferation of technology driven products which are expected to drive the banks transaction costs down, and hence improve financial inclusion. A number of products have so far been introduced including smart cards, ATMs, cell phone banking, internet banking and point-of-sale (POS) devices. These products have the potential to simplify financial transaction as well as improve accessibility for both providers and users of the services. However, the uptake and effectiveness in enhancing financial inclusion are yet to be documented. The World Bank, in collaboration with Department for International Development (DFID) and United States Aid (USAID) are in the process of designing the Malawi Financial Sector deepening trust to increase access to financial services in Malawi, according to the International development reports submitted, for the 2012-2013 session, to the United Kingdom parliament⁷.

⁷ <http://www.publications.parliament.uk/pa/cm201012/cmselect/cmintdev/writev/malawi/mal22a.htm>

4.5 Chapter Synthesis

The credit environment for Malawi is not very different from that in other developing countries in the region. The financial and economic environment for SMEs in Malawi poses both challenges, for business operators to easily access the credit that they need for business growth, and opportunities for credit providers to be innovative in developing products, which can enhance access to credit for entrepreneurs. A number of regulatory reforms have been implemented, and the provision of differentiated financial products, which indicates positive developments to stimulate use of available financial services. Despite the positive developments in the financial sector, there is still need for continued efforts to support the financial sector through detailed exploration of factors that affect business growth. As summarised in Chapter 3, the financial sector plays a significant role of facilitating economic growth through mobilizing savings, facilitating payment of goods and services, and efficient allocation of resources (Levine, 2005). Efficient allocation is shown when banking institutions supply credit to productive sectors of the economy, for example SMEs. An understanding of specific factors that can affect supply and demand for credit is therefore a requirement to formulation of strategic development programmes. A contribution to this understanding is made in the following chapters, by exploring the role of social capital in enhancing access to formal credit in developing countries.

CHAPTER 5 THE ROLE OF SOCIAL CAPITAL IN ENHANCING ACCESS TO CREDIT FOR SMALL AND MEDIUM ENTERPRISES IN DEVELOPING COUNTRIES

This Chapter reviews literature and demonstrates for the need to formally acknowledge use of social capital in credit risk evaluation conducted by banks and other formal lenders. This is a proposed way of reducing the problem of information asymmetry between bankers and small and medium enterprises (SMEs) in developing countries. The Chapter context analyses the information asymmetry problem and how this affects SMEs. This is followed by a comparison of the lending environments in different economies, which are at three different levels of development. A review of some innovative approaches including microfinance, small quick loans (SQL) and commitment savings, pioneered by various stakeholders, to enhance access to financial services for the unbanked, is also provided. While other problems that hinder access to capital are structural, and hence difficult to easily overcome, the chapter advocates the idea that weaknesses in objective formal credit risk evaluation techniques can be resolved by strategic social connections between lenders and borrowers.

5.1 SMEs and Access to Credit

Difficulties in accessing financing for small and medium enterprises (SMEs) still remains the major constraint to SME development in Sub-Saharan Africa, surpassing problems of taxation, corruption and poor infrastructure (IMF, 2004; Honohan and Beck, 2007). In most developing countries stock and bond markets are not vibrant, and there is limited availability of pension funds and insurance companies, leaving bank lending as the largest source of financial intermediation (Freedman and Click, 2006). However, banks extend credit only when they are satisfied about the borrower's future capacity to honour the debt repayments. A critical issue to guarantee this satisfaction is the availability of information about the borrower, which in developing countries is especially difficult to access. Jensen and Meckling (1976) showed that in an exchange relationship, there is an information asymmetry between the borrower and the banker, which the banker tries to reduce through the credit risk evaluation process. This relationship between a banker and a borrower is therefore a critical component requiring maintenance in the development process because it facilitates investments and economic growth when the borrower is a business. Unfortunately, the relationship between a lender and a borrower is influenced by uncertainty about the viability

of the project (adverse selection) and the reliability of the borrower (moral hazard) (Shapiro and Stiglitz, 1984). Using SMEs as ultimate borrowers, this chapter argues that to reduce this uncertainty, banks cannot only rely on instruments, and rigid procedures to conduct a satisfactory credit risk assessment but to embrace social capital as complementary to the credit evaluation process in developing countries. This is because social capital is ‘a resource in neither individuals nor in physical elements of production, but intrinsic in the structure of relations between persons and among persons’ (Coleman, 1990: p.302).

The focus of the chapters’ discussion is on SMEs because they contribute to economies through innovations, job creation, and revenue creation; and as a catalyst for urban and rural areas growth (OECD, 2004; Williams, 2006; Fatoki & Asah, 2011). However, their notable potential to contribute to economic growth, especially in Africa, is hampered by the severity of information asymmetries between lenders and borrowers, which cannot be offset by loan securitisation (Lefilleur, 2009). To worsen the situation further, most theories explaining factors behind financing decisions of SMEs have been based on research undertaken in high income countries (Booth et al., 2001; Fan et al., 2010), which have more developed institutions and different cultures than those found in the developing countries.

Firms with limited or no access to external capital may be seriously constrained in the ability to pursue an optimal investment policy, which may ultimately hinder the firm’s growth (Demirgüç-Kunt and Maksimovic, 1999; Levine, 2005; Knyazeva et al., 2009). Since the primary cause of SME failure is the inability to secure adequate resources of external finance, continued investigations aimed at finding possible avenues, which can help ease problems of financing SMEs, are of particular research interest.

5.2 Manifestations of the Information Asymmetry Problem

Information asymmetry refers to a situation in a transaction where one party has more or better information than the other party. Binks and Ennew (1996) likened the information asymmetry to a principal-agent relationship and suggested considering the bank as the principal because bank finance is the major source of external finance for small firms. One of the major problems for bank decision to supply credit is the unavailability of inadequate and sometimes inaccurate information (Bris and Welch, 2005). Banks are able to establish the quality of projects which firms want to invest in using information relating to conduct of the

business. When this information is not known, the lenders become hesitant to supply credit to the firms.

In order to understand the extent of the problem, an illustration about the information possessed and decisions made by borrowers and lenders is presented in Figure 5.1, which is adapted from Altman (1968). Information asymmetry, between a borrower and a lender, results into two erroneous decisions, which includes, good projects being rejected, and poor projects being accepted, by lenders. Altman (1968) categorised these errors as Type I and Type II errors, respectively.

		Bankers decision based on the information possessed	
		Good project	Bad project
Borrowers information about project	Good project		Type I error
	Bad project	Type II error	

Figure 5.1 Credit Risk Decision
Source: Adapted from Altman (1968)

The decisions presented in Figure 5.1 are made based on the information possessed by the lender which might result into less financing provided to some borrowers, for example SMEs, due to limited information, possessed by lenders, about their business. The major concern for SMEs access to credit is represented as Type I error in the illustration. Type I error results in good projects being denied credit by the banks, while Type II error results in bad projects being provided with credit hence high credit risk for credit providers. These two illustrated situations were also identified as adverse selection by Simtowe and Zeller (2006). Theoretically, lenders can reduce the risk of lending to ‘bad projects’ through better screening of the borrowers, and monitoring throughout the project life. However, in reality this would be very costly resulting into highly priced credit products, use of collateral to cover additional risk or complete rejection of a credit application. In the case where interest rates are raised, a borrower with a high risk project may succeed in getting credit because the return of the project is high (Risk return trade off), while a less risky project may not be viable at a higher interest rate hence would be denied credit. Lenders are, therefore, driven to make such decisions not only because of lack of information about the borrowers, but also due to the broader macroeconomic environment in which they are operating in. Research has demonstrated that access to external financing is

shaped by the country's legal and financial environment (Carlin and Meyer, 2003). Therefore, if the supporting infrastructure is critical for bank operations in any economy, the question worth answering first is, 'What are the characteristics of the lending environment in which banks in developing countries operate in?'

5.2.1 Lending Environment in Developing Countries

Research conducted around the developing world gives evidence that SMEs indeed face greater financing hindrances than large firms (Beck et al., 2005, 2008a; Beck & Demirgüç-Kunt, 2006) and yet they are a fundamental part of a dynamic and healthy economy (Kuntchev et al., 2012). This situation is worsened due to other conditions that render the lending environment difficult compared to that in emerging and high-income economies. In a recent cross-country study of 91 banks in 45 countries, Beck et al. (2008b) concluded that there are differences in extent, type and pricing of SME lending between developed and developing countries, due to the economic, legal and institutional environments in which banks operate in. Therefore making policy recommendations for developing countries using conclusions obtained from research conducted in developed countries may result into erroneous recommendations.

To illustrate differences in lending environments, which necessitates variations in lending techniques, Figure 5.2 to Figure 5.4 compares indicators about the lending environments for low income (Malawi, Kenya), lower middle income (Zambia, Ghana), upper middle income (South Africa) and high income (United Kingdom) economies, for the year 2012.

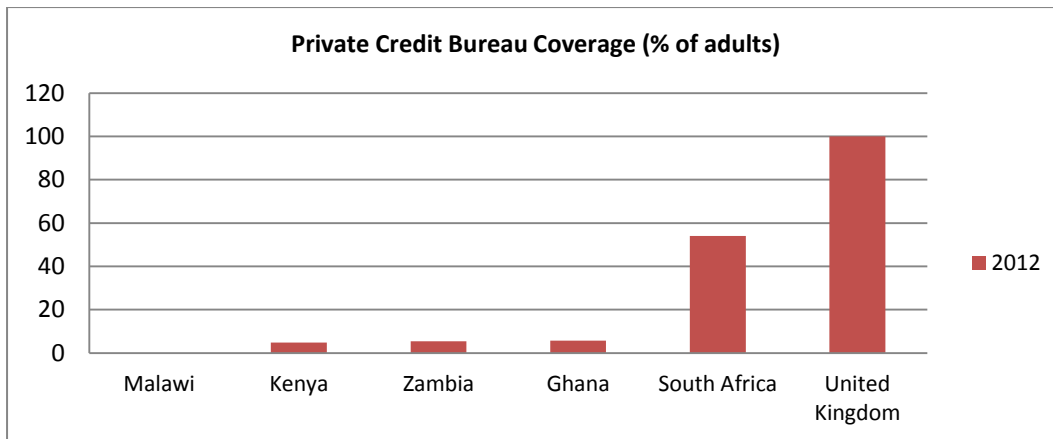


Figure 5.2 Private Credit Bureau

Source: World Bank doing business survey database

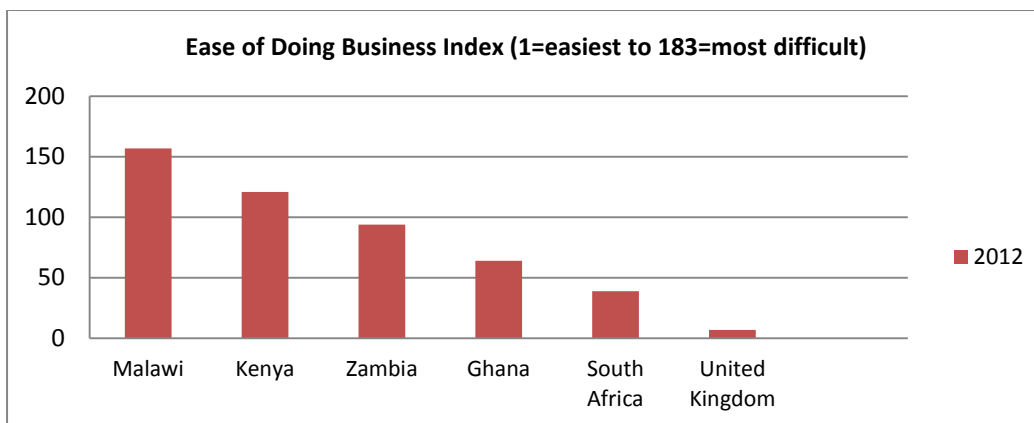


Figure 5.3 Ease of Doing Business Index

Source: World Bank doing business survey database

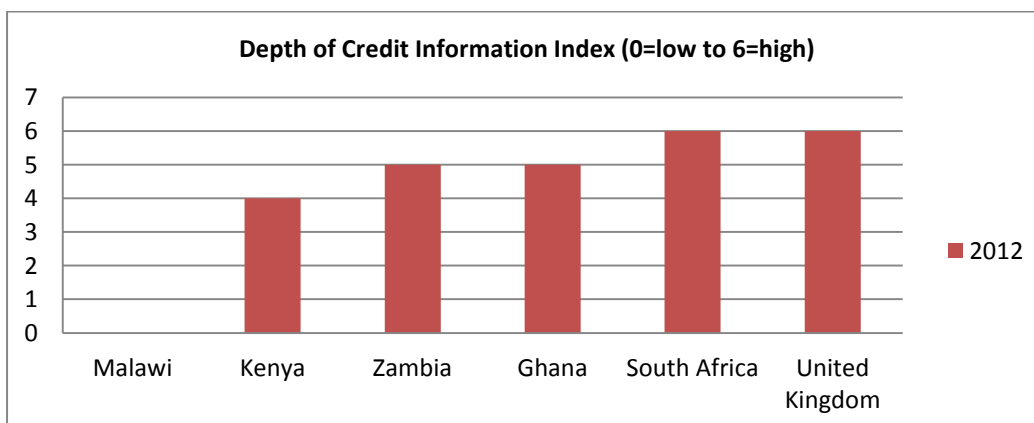


Figure 5.4 Credit Information Index

Source: World Bank doing business survey database

Availability of credit information in low-income countries is much lower than in high-income countries (Figure 5.4). The depth of credit information index⁸ is low for low-income countries compared to medium and high-income countries. Limited publicly available information about SMEs is a specific reason why businesses, especially in low-income countries, face insufficient access to credit (Hartarska and Gonzalez-Vega, 2006). Evidence also suggests that in countries where access to credit information by lenders is better, SMEs account for a higher share of loans which are devoted for investments, extended at lower fees, and interest charges (Beck et al., 2008b).

5.2.2 Credit Information Flow and Banking

The problems of asymmetry of information lead to credit rationing and higher collateral requirements through formal sources (Stiglitz & Weiss, 1992). However, in the informal sector, lenders have access to local information, allowing them to write down contracts that are less risky for borrowers (Boucher and Guirkingner, 2007). The simplicity and availability of borrowers' personal information, including character, and flexibility in the lending procedures employed by informal lenders, drives down transaction costs. These attributes are what is missing within the formal sector. The simplicity in such transactions is a result of trust and local information possessed between the lenders and the borrowers. To mirror this connection, in the formal sector, as financial advisors are engaged in informal social networks, they are also able to establish bonds of trust and accumulate social capital. This, although sometimes unplanned, helps them obtain the information needed for a financial risk assessment, which reduces information asymmetry between bankers and borrowers (Ferrary, 2003). The greater the density of interpersonal relationships, the greater the access to information, which is inaccessible in the framework of formal professional relationships (Ferrary, 2003). Social capital can, therefore, be a tool for the spreading of information on the sources of credit hence also consequently influencing the different choices of which sources the clients can use (Okten and Osili, 2004). Although this may be happening, there is no formal acknowledgement of use of informally gathered information in formal credit risk assessment.

⁸ This is a measure of rules affecting the scope, accessibility, and quality of credit information available through either public or private credit registries <http://www.doingbusiness.org/ExploreTopics/GettingCredit>

Another important issue worth noting is that, for low-income countries, problems of information asymmetry are not simple, but rather complex due to a number of other factors. Firstly, most of the SMEs are informal⁹ and hence cannot afford to use the expertise of independent credible accounting firms to adhere to accounting reporting standards. This contributes to the poor quality of information which can be given to the banks (Kauffmann, 2005). Secondly, operating in the informal sector puts the businesses in a position where they cannot provide standard required documentation, for example legal registration documents and standard accounting records. The situation worsens since it would be in the interest of the entrepreneur to sometimes provide erroneous information in order to avoid taxes. Finally, there is a general lack of channels through which banks could learn about the credit history of the potential clients, except if they have been the lenders' clients for some time. In such scenarios, informal communication will need to make up for deficiencies in classic communication channels. In such cases, the reputation of the entrepreneur and their proximity to the bank are just as important as the quality of financial statements transmitted to the bank (Lefilleur, 2010). Before discussing how current lending techniques measure up, when used in such difficult operating environments (analysed in section 5.2.1), the chapter proceeds with a discussion on the various meanings of social capital.

5.3 Understanding Social Capital

The major thrust in 'social capital' theory is that relationships matter, hence implying that social networks are a valuable asset (Field, 2003: p.1). Less adverse selection and moral hazard in the market for credit could result from a better flow of information between creditors and borrowers, where a higher level of social capital exists (Narayan and Pritchett, 1999). The principle behind social capital is simply 'investment in social relations with expected returns in the market place' (Lin, 2007: p.33). Although the term social capital became fashionable relatively recently, the concept behind it has been known for decades. The word social capital is said to have first appeared in Lyda Judson Hanifan's discussions of rural school community, where he used it to describe 'those tangible substances that count for most in the daily lives of people' (Hanifan, 1916: p.130). Social capital is understood to include a wide range of things connected to social embeddedness ranging from neighbourly help to civil morality in a global society. The works of Robert Putnam (1993) launched social

⁹ Businesses falling in this category are those that are not being taxed, not registered and not monitored by any form of government regulations.

capital as a popular focus for research and policy discussion. Putnam, who is the most influential advocate of social capital, defined it broadly, and his definition has provided a basis for many other definitions. He defined social capital as '*Connections among individuals –social networks and the norms of reciprocity and trustworthiness that arise from them*' (Putnam, 2000: p.19). Since then a number of research studies that span across disciplines have explored its implications, but have not reached a consensus on the definition of social capital (Durlauf and Fafchamps, 2005). As Fukuyama (2001) appropriately observed that, '*there are multiple alternative understandings of this intellectually fashionable but elusive concept*'.

Coleman defined social capital as a network of relations between agents. It is a resource '*lodged in neither individuals nor in physical elements of production, but inherent in the structure of relations between persons and among persons*', (Coleman, 1990: p.302). Lin (2001) also defined social capital as '*resources, embedded in one's social networks, which can be accessed and mobilised through ties in the networks*'. The World Bank, a promoter of knowledge generation on social capital, defines it in the interest of the impact it has on development, as '*Institutions, relationships, attitudes and values that govern interactions among people and contribute to economic and social development*' (Grootaert and Bastelaer, 2000: p.4). Social capital can be thought of as the links, shared values and understandings that enable individuals and groups in a society to trust each other hence work together. Bourdieu (1986: p.248) defines social capital as '*the aggregate of the actual potential resources which are linked to possession of a durable network of more, of less institutionalized relationships of mutual acquaintance or recognition*'. Other various authors have resorted to defining it to suit their enquiries, due to a lack of consensus on a single definition. However, whereas there are various definitions of social capital, most scholars who have contributed to the discussion agree that social capital is networking based (Bourdieu, 1986; Lin, 2001; Coleman, 1988; Putnam, 1995; Dzanja et al., 2013). Literature has also documented that the quality of the economic agent's social connections with members of his socio-economic environment has an impact on his success (Coleman, 1988; Nahapiet and Ghoshal, 1998). The key interest in discussing the meaning of social capital for this chapter is not to engage in the debate on definitions, but to highlight the link between social capital and business transactions, which is discussed in the next section.

5.3.1 Social Capital and Transactions

The discussion of how social capital has been defined by various writers leads to a conclusion that it promises to resolve a number of issues in social science. One of the issues, as claimed by Coleman (1988), is the relation between ‘under’ and ‘super’ socialised views of human beings. A number of impacts of social capital have been documented, both good and bad. The aim of this discussion is not to elaborate impacts of social capital, but rather to expose possible impacts that have been captured in literature, and highlight the potential contribution that social capital makes in business transactions. Social capital can help to remove the causes of market failure to allow transactions which would not take place otherwise. This basis of the argument is supported by the theory of transaction costs and incomplete contracts, which states that a contract involves costs (Williamson, 1981) and all contracts are generally incomplete.

Personalised relationships, social networks and trust are manifestations of social capital. The ‘*embeddedness*’ concept of Granovetter (1973; 1974; 1985) argues that social networks modify economic regulation because of the principle of solidarity that links members. These social networks can also be identified at individual level (Bourdieu, 1980). An individual’s social relations can give them a competitive advantage because they hold information about other network members, which reduces moral hazard when trading with them (Ferrary, 2003). All these connections are however glued together due to trust, which Williamson (1993) refers to as calculative trust (see Chapter 2 for a discussion of the other dimensions of social capital).

Theoretical and empirical investigations have concluded that personalised relationships can facilitate the dissemination of information on new technologies (Barr, 2000), market opportunities (Kranton, 1996), the sharing of risk (Fafchamps and Lund, 2003), screening of jobs and credit applicants (Cornell and Welch, 1996), and the punishment of cheaters (Fafchamps, 2002). If trust is absent the only types of economic exchange that could be hoped for are flea markets and garage or car boot sales (Fafchamps, 2004), although even such simple markets still need property rights of traders to be protected. Social capital has further been demonstrated to matter for firms’ profitability (Fernandez et al., 2000), individual wellbeing (Coleman, 1990; Lin, 2001), institutional performance (Knack and Keefer, 1997) and for household income (Maluccio et al., 2000). Other examples documented

in the literature include economic development, economic growth or sustainable development (Woolcock, 2001; Beugelsdijk and Smulders, 2009), poverty alleviation (Woolcock and Narayan, 2000), adoption of corporate social responsibility (Sacconi and Degli, 2011), and technical progress and economic growth (Fukuyama, 2001; Antoci et al., 2009). Recently online social networks have also attracted researchers' attention to investigate how such networks are shaping interactions amongst individuals. So far a number of positive results have been documented (see Antoci et al., 2011a and 2011b for examples), although questions arise about measurement. This, however, implies the positive response of economic development to higher social capital.

Although most research has concentrated on promoting the positive externalities that social capital has in the economies, an awareness of its negative externalities is also necessary. When dealing with the term capital, the general assumption is that its quantity and existence can be defined, and that its use can have both negative and positive outcomes. These assumptions are the same when dealing with social capital. Social relations and their economic impacts are not always positive. Social capital can have a contrary characteristic such as undemocratic tendencies, and major economic costs, such as rent seeking and unfairness (Fine, 2001; Molyneux, 2002; Taylor and Leonard, 2002; Field, 2003). Organised crimes and drug cartels are other examples of negative social capital because they operate with a high degree of trust amongst gang members (Curry and Decker, 1998).

Coleman (2000) acknowledged that, because social capital is inherent in the structure of relations, it facilitates some actions which might not be useful or could even be unfavourable for others outside it. The same beneficial relationships can be detrimental to those excluded from the network of relationships, contributing to increased social inequalities. 'Social capital can promote inequality because access to different types of networks is very unequally distributed' (Field, 2003: p.74). At the far extreme, social capital can generate 'self-reinforcing systems of negative externalities' (Warren, 2008) and it can also create opportunities for rent-seeking behaviours. Field (2003: p.74) outlines how the negative externalities arise in a list of four ways in which social capital is interrelated with inequality;

- access to different types of networks is unequally distributed;
- social capital in networks can be used to disadvantage others;

- social capital in groups can benefit members but generate unintended consequences for others;
- Social capital can have a diminishing impact on people's aspirations, through providing disincentives for individuals in a group to save and invest.

Arguably, for the low income communities or SMEs, who are already facing difficulties in accessing certain resources, high social capital could enhance their access to the resources. This view corresponds with that taken by the World Bank regarding use of social capital for poverty alleviation (Grootaert and Bastelaer, 2000). Although the use of social capital in lending seems promising, credit providers need to be aware that not all clients would have similar levels of social capital. To minimise financial exclusion problems, other innovative information gathering techniques need to be used for robust credit risk analysis processes.

In an effort to minimise risks for the lender, technological advancements have contributed to a proliferation of credit risk evaluation techniques that are used by banks. However, the extent to which these innovations are able to capture most of the information needed by the banks, to make an informed decision, on whether to extend credit or not, is not known. The following section provides a brief review of some notable innovative lending techniques used, mostly in developing countries, to enhance access to financial services including formal credit. The review focuses on short comings of currently used methods of credit risk assessment and also gives examples of some innovative techniques, which are using some concepts of social capital in the credit assessment process.

5.4 Information Gathering and Credit Risk Assessment

Banks consider risk of a borrower not honouring their debt when making a decision to extend credit to a borrower. In order to reduce uncertainty, a number of instrumental evaluation methods are employed. An instrumental evaluation method entails use of formal rules to assess a client's solvency using available objective information (Ferrary, 2003). Firstly, two approaches, namely income and capital gearing are utilized, where future earnings potential of the investment, and the quality of assets are used in the assessment (Berry et al., 2003). Existence of information asymmetry, as the case with developing countries (see section 4.2.1), motivates formal lenders to prefer the capital gearing approach (use of collateral)

rather than the income gearing approach. The former approach diminishes the moral hazard and adverse selection risks (Nott, 2003). The basis for this action is that, fear of losing valued possessions by the borrower will motivate the borrower to repay the loan. Therefore reliance on collateral in SME lending is believed to ease consequences of information asymmetry (Triantis, 2003). Unfortunately this argument still makes provision of credit to SMEs in developing countries much harder to achieve, because they do not have registered property or land, which conforms to the conventional requirements for use as collateral. Similar criticism has been noted by Burns (2001), Lean and Tucker (2001) and Mason and Stark (2004) when they pointed out that financial and managerial strengths of the firm, and viability of project to be financed in a given sector, should be the prime factors on which to base assessment on. When such information about the borrower cannot be obtained by the bank, then the assessment would be deemed unreliable. Collateral is also only effective when its value can be monitored (Rajan and Winton, 1995), which, in absence of operationally efficient formal institutions in place, would depend on closeness between bank and borrower that manifests in long-term interactions.

Recent developments have seen a shift from the traditional 5Cs¹⁰ credit assessment to use of credit scoring¹¹ methods to support lending decisions in banks. Developments in computer technology have improved the predictive power of this methodology although in low-income countries a number of borrowers would still be rationed. This is because they may likely not be included on the credit scoring system due to difficulties in accessing credit in the first place (Ferrary, 2003). The methodology does not take any subjective elements into account. Therefore, this approach may not be very suitable for credit application assessments in situations where the information asymmetry problem is high. In such situations a network of local contacts is ideal (Cressy, 2002). The bank – SME relationship would potentially soften penalties of information asymmetry on the flow of credit to SMEs (Madill et al., 2002). He further pointed out that among the SMEs a strong correlation exists between the banks' lending products and satisfaction of the services offered by banks, if there is a personal contact between the loan officer and the SME borrower.

¹⁰ It is an approach for evaluating credit worthiness of an applicant based on five factors namely capital, capacity, collateral, conditions and character.

¹¹ Modern method used by banks, credit bureaus to evaluate credit worthiness of a borrower to receive credit. It is based on statistical characteristics of an applicant's credit payment patterns which assesses the probability of default.

Additionally, small businesses usually keep simplified accounting information or none. In developing countries where a large proportion of the business sector comprises of small businesses, using sophisticated tools of statistical analysis would prove difficult. The problems discussed above, with using the instrumental methods, have resulted in deployment of other initiatives, mainly in developing countries, to improve access to financial services.

5.4.1 Innovative Approaches Pioneered to Enhance Access

A number of initiatives are being employed by various institutions in an effort to enhance extension of credit to those lacking access. Notable innovative ideas and products currently being pioneered in the sector include Islamic finance, warehouse receipts, use of psychometric tests, matching grants, microfinance and commitment savings. The discussion will concentrate on the latter two because they employ some social capital concepts in the methodology.

Micro-finance: This is one of the successful initiatives that is yielding positive results (Serageldin and Grootaert, 2000), and has been cited as a prime example of the effective use of social capital, where both the state and the market has failed (Dasgupta, 2005). According to Serageldin and Grootaert (2000: p.48) ‘these schemes – from *tontines* (informal savings circles) in West Africa, to Grameen bank in Bangladesh, work because members have better information on each other than the bank do’. Despite microfinance’s contribution to improved information sharing within the credit sector, the loan sizes that are disbursed through microfinance are generally too small to finance meaningful investments undertaken by SMEs. Microfinance products are mostly designed to meet the financial needs of the micro business sector; unfortunately, it does not fulfil the same for SMEs in developing countries, which are deemed too big for microfinance.

Additionally, further characteristics, as discussed in chapter 4 render SMEs challenging to be served by formal credit providers. However, continued efforts to increase credit access to SMEs are needed now more than ever. Chironga et al. (2012) documented that the time is right for banks to increase their engagement in micro small and medium enterprises (MSME) lending in developing countries because of the following reasons: 1. More banks are finding ways to overcome difficulties, 2. An estimated 60% of global banking revenue growth will

come from emerging markets, and 3. Innovations in risk assessment technology and business models are facilitating the efforts (Chironga et al., 2012).

Commitment savings: Use of commitment savings is another innovative idea which has been tried successfully. Commitment savings entails a commitment to forgo current consumption by setting aside some funds until a specific date in the future. This can be done formally or informally. Commitment savings come in various products in both developing and developed countries. Rotating Savings and Credit Associations (ROSCAs) are popular in developing countries because they provide ‘spouse control’ devices, which allow funds to be removed from the household economy (Anderson and Baland, 2002). Social pressure to save also works in the same way as ROSCAs. Just as social capital and group liability help reinforce credit contracts (Karlan, 2007), peers can join savings circles to preserve their reputation. Evidence suggests that use of commitment savings by entrepreneurs in developing countries increases investments (Beck and Cull, 2013; Dupas and Robinson, 2013). Although commitment savings may not directly mean having access to credit, it provides evidence of how locally-adapted innovative products enhance efficient utilization of excess funds. In a randomised control trial, Dupas and Robinson (2013) revealed that female shopkeepers preferred to take up a non-interest bearing savings account with high withdrawal fees, and investment for this group more than doubled than the control group. Brune et al. (2013), using the case of Malawi, documented changes in production methods for farmers who opted for a commitment savings account to allow the farmers to freeze their funds until a specified date.

Although commitment savings guarantees availability of saved funds at a specified period, there is no evidence to suggest that this service opens up opportunity for the client to access extra funds in the form of credit from banks, in addition to the saved funds. In effect it simply provides a safe place for savings to be kept, and hence boosting savings mobilization efforts by the banks.

Matching grants and warehouse receipt system: Warehouse receipts are negotiable instruments backed by the underlying commodity, which enables the holder to access credit. This system is widely used in developing countries but is now being promoted in various developing countries including Malawi. The system is mostly used for farm produce and its wide use in developing countries will mostly depend on how supportive the regulatory and

economic environment is, and awareness of its use by bankers, among other factors. Matching grants, although gaining much popularity in developing countries, are also hindered by a lack of business records to secure the matching funds from banks by the SMEs. A matching grant is a one-off, non-reimbursable provision of funds for a specific purpose, on condition that the recipient (i.e. SME) makes a specified contribution for the same project. The contribution can be in kind, cash or a combination. Just like the bank, which requires a business to be registered and have an active account to demonstrate its performance, matching grants programmes, targeting SMEs growth, also require similar information. Therefore, information asymmetry problems would also hinder access to such services.

5.4.2 Innovative Ways to Extend Credit: Cases from Malawi

Recognizing the difficulties that traditional commercial banks face in lending to potential SME clients, innovative credit delivery systems are being trialled out by financiers. Standard bank¹², which operates in 17 African countries, has pioneered an innovative risk assessment solution to improving unsecured lending to Africa's SMEs, which is termed Small Quick Loans (SQL) facility. The SQL facility employs a 30 to 40 minute psychometric test which helps assess the potential clients' credit worthiness. The tool was developed by a Harvard University research lab. Reports indicate that, during the initial piloting stages up to \$30 million worth of loans were given out to 4,800 firms¹³ (Hansen et al., 2012). After piloting the scheme in 2010 in Kenya, Ghana, and Tanzania, Standard Bank extended the psychometric solution into a further 10 countries: Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Uganda, and Zimbabwe.

In Malawi, the SQL facility was initially implemented in 2012, and subsequently suspended in early 2013 for reassessment. At the time when this study was conducted, plans were underway to restart in October, 2013. The targeted clients for the facility were traders, both wholesalers and retailers, and within the short time of implementation it was proved that traders selling on a daily basis are better suited for SQL than any other businesses. The facility has some unique features, which make it stand out in the developing countries'

¹² Information obtained from publicly available information and confirmed through discussions with bank personnel in Malawi.

¹³ Lending and borrower volumes from the East African, 'Psychometrics tests for loan product', 2011. <http://www.theeastafrican.co.ke/business/Psychometric+tests+for+loan+product/-/2560/1280110/-/p0texg/-/index.html>

financing environment. These features include: unsecured nature, bank visits clients at their business premises to assess, it takes less than 7 days from loan application to disbursement, and a simplified application process is employed. The unique features of this facility respond directly to the key problems cited previously as hindering access to financing for SME, which were lack of collateral, and poor financial records. As a testimony to the potential of the facility, the bank was able to advance up to MK1.6 billion within 8 months of its operation. However, this research was not able to estimate the recovery rate to confirm effectiveness. Social capital is utilised within the risk analysis process through working in partnership with business associations, which would help with information on business conduct. Face-to-face interviews with business owners, who had accessed funds through the facility, confirmed the perceived positive impact the facility has had. The entrepreneurs reported that they were being encouraged to introduce their trusted colleagues and friends to the credit facility through the loan officers. This is a clear example of utilisation of ties in a network as described by Granovetter (1973).

Opportunity International Bank of Malawi (OIBM), which started its operations in 2003, pioneered use of biometrics to extend banking facilities to those excluded due to lack of a national identity, which in Malawi's case was mostly a driver's license or a passport. OIBM also led the way in use of mobile banking services which was launched in 2008 in partnership with Telecom Networks Malawi (TNM). The facility termed '*banki m'manja*' (banking in your palm) promoted competition in the sector and contributed to extended opening times for banks. Enhancing access to bank facilities opens up opportunities for clients to access credit as well. The banks' mission is to target economically active but marginalized clients with services which are designed to potentially enable them to improve their lives, through steady incomes, expanding businesses, provide for families and create jobs. The innovative ways being employed address, in one way or another, the key challenges that make MSMEs difficult for financial institutions to serve profitably. These understand target clients, managing risk innovatively, empowering clients, engaging with Governments, and lowering operation costs radically (Chironga et al., 2012). Although the problem of access to finance for SMEs is the same worldwide, dealing with it requires use of varying techniques tailor-made to specific socio-economic environments.

5.5 Considering Social Capital in Risk Evaluation

The discussion so far has revealed potential issues within the lending environment in which SMEs operate in developing countries. This is what necessitates use of varying methodologies, if access to finance is to be enhanced. Both modern lending techniques and relationship-based techniques have the potential to enhance access to credit for SMEs when implemented on their own. However, employing such a strategy still leaves a gap in the credit risk assessment, rendering lenders at a risk of default. This results in lenders rationing credit depending on how well they can assess a borrower's risk level. While poor supporting infrastructure reduces the effective use of technologically advanced techniques, use of a social connections strategy cannot also be employed on its own due to a number of issues. To illustrate this point, in a survey of SMEs, bankers and accountants in Canada, Wynant et al. (1991) established that social relationships are characterised by conflicting views. This is due to SME misunderstanding of the banks' role and lending criteria, and perceptions between bankers and SMEs. Closeness of the relationship between the loan officer and the borrower could create potential problems for the bank especially where remuneration for the loan officer is based on the size of their portfolio (Cressy, 2002). Loan officers and SME borrowers may also use such informality to avoid strict bank loan appraisal procedures, and hence exposing the bank to credit risk through fraudulent activities. The low transferability of social relationships poses a problem because social bonds are formed through individual interactions, and hence are specific to individuals. Transferring an individual loan officer with a wide social network to a different location means removing the social capital possessed by the individual, and this would take a longer time to rebuild. This social capital power, possessed by the loan officer, may also result in a shift of bargaining power relations between the loan officer and the employer (Ferrary, 2003)

The using of formal objective credit risk methodologies, without considering informal contacts, poses problem in how the borrowers can be identified. Although having collateral and existence of credit registry can ease the problem of access, their functionality still depends on the borrower being able to be identified. The key problem in promoting extension of credit to SMEs in Africa is the lack of a nationally acceptable personal identification (Beck and Cull, 2013). Biometric identification has been successfully used in enhancing credit repayment (Brune et al., 2013); however in the short run, the poor infrastructure and high investment cost still poses a problem in out-scaling the system for most developing countries.

The annual cost of addressing physical infrastructure problems alone for Africa has been estimated at US\$93 billion, corresponding to 15% of Africa's GDP (Foster and Briceno-Garmendia, 2010). Therefore, in the short run, social connections, although deemed informal, could help in identifying the borrowers locally. The use of social capital can work because it:

- Enhances flow of information,
- Enforces influence,
- Provides social credentials, control and enforcement, which are not accounted for in economic and human capital (Lin, 2007).

However, limited research on how they work in financial transactions hampers usage of social capital.

5.5.1 Objective and Subjective Assessment

Two opposing approaches to credit risk evaluation have been explored in the above sections. These include the objective approach, which is based on data for evidence, and the social approach, which uses subjective information gathered through social networks or connections. Table 5.1 indicates how the credit risk assessment techniques are able to capture information to analyze the 5 Cs of credit. Regardless of the assessment techniques employed, the basis of the credit decisions still hinges on how a potential borrower measures on the 5Cs. Effectiveness of a chosen technique in providing the necessary information is presented using the color codes where green indicates good, yellow indicates fair and red indicates bad. Brief explanations of the chosen effectiveness level are presented within Table 5.1. The comparison is based on the assumption that the operating environment is a developing country.

Table 5.1 Objective and Subjective Assessment Comparison

Type of analysis	Credit Risk Assessment Criterion				
	Capacity	Capital	Collateral	Conditions	Character
Subjective	Established through visual and interaction with officer to estimate cash flow	No contribution because valuation conducted by third party	In addition to conventional, social collateral	Better verified with social connections because of relying on trusted borrower and lender own assessment	Good mostly when data is not readily available
Objective	Evidence captured through well captured records	No contribution because valuation conducted by third party	Conventional security required due to limited capture of all information required.	Rely on trusted borrower and lenders own assessment	Bad especially where data is not available

Note: Capacity – cash flow, timing and probability of repayment ; Capital – how much at risk for borrower if business fails; Collateral – pledging asset owned in case of non-repayment; Conditions – intended purpose and general operating environment; Character – subjective assessment of trustworthiness.

Neither of the analysed two approaches, in Table 5.1, performs exceptionally on its own. Despite the overall objectivity with standardized risk assessment techniques, usually first-time borrowers will be categorized as very risky due to information asymmetry, as is the case in developing countries. Using unconventional techniques like social connections, first-time borrowers would have the chance of being attracted into using formal financial services, and hence inclusions on the credit risk register. Incorporating the use of social capital within formal credit approval processes could provide a resolution to this problem.

5.6 Chapter Synthesis

This chapter has argued that social capital is ideal for use in environments where formal credit information channels are still under developed. The use of such connections can be beneficial, especially for small and medium businesses that are seeking formal credit for the first time. In the long run, banks, using such an approach for first-time borrowers, would also provide an opportunity for registries to build credit histories on such clients. Thereafter, they would be able to use more formal methodologies for subsequent assessments. The bank would also be able to use this opportunity to share with the clients the requirements that banks

would need if they are to get access to bigger subsequent loan amount, and hence pave the way for relationship banking.¹⁴

Financial inclusion has dominated the recent research and policy agenda with little on impacts of such policies on SME financing and long term investment (Beck et. al., 2013). Locally adapted lending methodologies have the potential for greater impact, however well designed methodologies are required to respond to the specific issues identified within the operating environment. To investigate this issue further, the extent of the information asymmetry problem for Malawi is explored in Chapter 6.

¹⁴ Boot (2000) defines relationship banking as the provision of financial services by a financial intermediary that enables it to obtain proprietary firm-specific information, which is used to establish a long-term relationship with a firm based on multiple interactions through different products. This relationship becomes more profitable for the lender in the long run.

CHAPTER 6 EXTENT OF INFORMATION ASYMMETRY IN THE COMMERCIAL BANKING SECTOR FOR MALAWI.

As discussed in Chapter 5, one of the major obstacles to the flow of credit to small and medium enterprises in developing countries relates to information asymmetries among borrowers and lenders. The Chapter uses descriptive analysis to reveal information gaps between borrowers' (SMEs) and lenders' (commercial banks) views and experiences regarding factors affecting credit access for SMEs. It further explores views on the role played by social interactions, between lenders and borrowers in the formal credit granting process. This chapter also describes the methodology that was followed to collect data that is used in the analyses for this chapter and Chapter 7.

6.1 Banking Sector and Access to Credit for SMEs in Malawi.

Social interactions that bank officers have with entrepreneurs can give the lender access to private information (Uzzi, 1999). This information can be used to convince fellow bankers of the creditworthiness of a firm, in addition to the traditional ways of assessing creditworthiness of borrowers. However, for the information to flow, an element of trust between lenders and borrowers is needed for either party to freely engage in the relationship. In order to establish specifics about the lender-borrower relationship for Malawi, this chapter's primary interest is two-fold (1) to establish perceptions of borrowers regarding factors affecting access to credit from commercial banks and (2) to examine the knowledge gap between lenders and borrowers regarding factors affecting SMEs access to credit. The chapter uses descriptive analysis, and concludes with a test of hypothesis that size of business does not affect perceptions of effect of social connections on accessing formal credit.

Lack of trustworthy information on the risk profile of borrowers is the most important factor constraining lending to poorer households and small firms in developing countries (Lefilleur, 2009). Unavailability of credit history information, which lenders can use, is among the factors contributing to the 'missing middle' situation in most developing countries, including Malawi. Malawi is the last remaining country in Southern Africa without a national identity system and currently the use of the established credit reference bureau is still not fully functional despite provisions of the Credit Reference Bureau Act (2009). The situation is further complicated because of poor business record keeping by small and medium

entrepreneurs. The World Bank 2009 enterprise survey for Malawi listed the top five major obstacles for SME growth as; limited access to finance, transportation, informal practices, electricity, and tax rates.

The Government of Malawi, through the Ministry of Industry and Trade, continues to recognize the important economic role played by micro, small and medium enterprises (MSMEs). The commitment is evidenced through development of the overarching policies, including the Malawi Vision 2020 (1998) and the Malawi Growth and Development Strategies (2012). These policies are aimed at transforming a consuming country into an exporting country through sustained economic growth and infrastructure development. In a 2012 enabling environment for sustainable enterprises (EASE) perception survey report, commissioned by the International Labor Organization (ILO) in Malawi, fifty percent of the sample indicated that there is political will and support for the formation and growth of sustainable enterprises in Malawi.

The concept of asymmetric information was first introduced in George Arkerlofs' 1970 paper on '*The Market for Lemons*'. Using the example of market for used cars, the lemons model demonstrated that the buyer has information pertaining to the average of the whole market, while the seller has more specific information about the item being traded. The paper argues that this difference in information possessed gives the seller an incentive to sell goods of less than the average quality. This concept applies to various markets including the credit market, where sellers would be likened to borrowers and buyers would be likened to lenders. Asymmetry of information between lenders and borrowers contribute to rationing of credit by lenders. This is likened to the cost of dishonesty, as demonstrated by the lemons model. The cost of dishonesty is not only represented by the actual amount which the buyer is cheated by, but also includes the loss incurred by driving out legitimate business out of existence (Arkerlof, 1970). In the credit market, the cost of dishonesty is the high interest charged due to perceived risk, and rejection of funding for viable projects as a result of unavailability of credit information about potential borrowers. Malawi has had a credit depth information index of zero¹⁵ since 2009 to 2012 (Berg and Fuchs, 2013) indicating that there is low availability of credit information, from neither a public registry nor private bureau, to facilitate lending decisions. In such an environment, it is expected that SMEs would face

¹⁵ The index ranges from 0 for low to 6 for high. Although the index would be anticipated to be low, the figure 0 in this case might also be due to unavailability of information to compute the index.

more hurdles to access credit from formal sources. Despite the challenges, the micro small and medium (MSME) sector for Malawi, when compared to South Africa and Zambia, is doing well in creating employment in relation to its size (Finscope, 2012). This report also estimated that in 2011 there were about 1 million MSME businesses, providing employment for 1.8 million people, with an estimated revenue of MK326 billion¹⁶.

6.1.1 Lending Institutions

Financial services are provided by a wide range of institutions in Malawi which, as noted earlier (see Chapter 5), include; 12 licensed commercial banks, with two major banks having the largest (45%) market share (Reserve Bank of Malawi, 2011); one leasing company; one discount house; Non-bank financial institutions (NBFIs) operating under various legal forms; member based organizations i.e. savings and credit cooperatives (SACCOs); and informal financial providers including money lenders locally known as '*katapila*'. The banking sector provides a range of services including deposit products, credit facilities, foreign exchange services, payment facilities, bank assurance, etc., with loans and advances forming a major portion of the asset structure of the banks (Finscope, 2012). Microfinance services, which are now regulated by the Reserve Bank of Malawi, provide savings and credit services to those excluded from the formal financial sector. Registered MFIs have increased from 18 in March 2012 to 40 in March 2013, with an overall asset base also growing from MK13, 900 million to MK16, 500 million in March 2013 (Reserve Bank of Malawi, 2013). The increased growths in loan assets indicate increased access to financial services, especially small loans or increased repeated bigger loans.

To enhance access to and usage of the financial services, the public needs to have information about the financial products available from which they can choose. In Malawi, 59% of business owners use neither formal nor informal sources of finance; depend only on family and friends for borrowing; and save (if they save) at home for business purposes (Finscope, 2012). Although other exogenous factors i.e. high fixed costs and tight entry regulations (Claessens and Perotti, 2007) have a role to play in hindering access to financial services, poor information flows between lenders and borrowers also contribute to the situation (Lefilleur, 2009). Recognizing the need for the public to have accurate information regarding

¹⁶ 1 United States Dollar (USD) = Malawi Kwacha (MK) 422

how financial institutions work, the Reserve Bank of Malawi initiated a financial literacy week in December 2013, which was a first of its kind in Malawi.

6.2 Conceptual Framework

There are several sociological accounts of how social structure affects financial markets (see Chapter 2), one of which is social embeddedness approach (Granovetter, 1985). Social embeddedness, as defined in Marsden (1981), refers to the degree to which commercial transactions take place through social relations and networks of relations that use exchange protocols associated with social non-commercial attachments to govern business transactions. The concept of social embeddedness is rapidly becoming an important concern in business studies (Burt, 2000). Social capital is an asset whose value originates from the access to resources that it engenders through actors' relationships (Granovetter, 1992). Embeddedness, social networks and social capital are therefore interrelated concepts. Embeddedness allows actors to integrate into social networks, where resources can be used to bring benefits which constitute social capital. These resources exist in the form of regulations such as trust and faith. Social networks therefore are formed and grow through the accumulation of social capital (Lin, 1999). A social connection is, therefore, a dimension of embeddedness.

Financial theory argues that any firm with a positive economic net present value for its investments should obtain credit at competitive prices (Petersen and Rajan, 1994). In partial agreement, sociological theory proposes that banking transactions are embedded in social relations that uniquely shape credit access and costs in a way that such interactions are not well captured in financial theory (Mintz and Schwartz, 1985; Mizruchi and Stearns, 1994; Uzzi and Gillespie, 1999). For instance, formal lending decisions are made by social beings aided by financial models. However, the financial models do not adequately capture the value of bank – client relationships, while correspondingly sociological research has not had focus on availability of capital (Uzzi, 1999). This implies a need for research on social interactions and finance theory (Abolafi, 1997; Arrow, 2000). In Malawi, although some research has been done on measuring and understanding the manifestations of social capital (Dzanja et al., 2010; Vajja and White, 2014), little is known about how social capital affects economic development through its effects on credit access for SMEs.

6.3 Methodology

This section discusses the methods followed in collecting primary data which was used in the analysis for this Chapter and for Chapter 7. The analysis conducted in the two chapters used perceived views that were captured for both borrowers and lenders in the commercial banking sector. The use of perceptions for this thesis was preferred because according to social psychologists, while people are seeing and listening to the world around them, social knowledge that corresponds to perceived stimuli is impulsively and immediately activated in memory without people's intention or awareness, and hence affects behaviour (Ferguson and Bargh, 2004). Studies using peoples' perceptions have been widely used in a variety of empirical research across different disciplines. In England and Wales crime surveys are used to determine perceptual predictors of perceptions of worries about crime and crime levels (Nicholas and Walker, 2004). In United States of America, perceptions of food quality and safety determine food consumption habits (Rimal et al., 2001). Competitors' perceptions are used in repeated interaction choice models to determine business actions in oligopoly markets (Marks, 1988). In psychology, influential theories of learning rely on perceptions as a key component.

The analysis in this Chapter and in Chapter 7 uses perceptions on credit use following Aryeetey et al. (1994) and Zeller (1994), who pointed out that perception of business owners influence decisions for SMEs to seek credit, especially if the SMEs were denied credit from banks in the past. Chomsky (1988) emphasizes the impact of social interactions in the poverty stimulus argument that

'Fundamental aspects of our mental and social life, including language, are determined as part of our biological endowment, not acquired by learning, still less by training, in the course of our experience'. (Chomsky, 1988: p.161)

This implies that we also learn much from observing the effects of other peoples' experiences. We can therefore learn more about social connections as a factor affecting access to finance for SMEs, from perceptions of the borrowers and lenders. Two surveys were therefore carried out to gather primary data on perceptions of both lenders and borrowers (entrepreneurs) regarding factors affecting access to credit, with an emphasis on the role of informal social connections.

Following Zhao et al. (2010), an entrepreneur is defined as founder, owner and (or) manager of a micro, small and medium firm. The entrepreneur is also referred to as the borrower while the bank is a lender. Social connectedness refers to entrepreneurs informal relations with people having positions in formal institutions. The focus is on exploring social capital using personal connections as a point of analysis, because it not only facilitates an optimization framework (Glaeser et al., 2002), but also makes social capital analysis comparable to the economic idea of capital (Munasib, 2007). The focus on the personal connections is also consistent with the view that such ties are critical to development of small firms (Maurer and Ebers, 2006).

6.3.1 Micro Small and Medium Enterprises Survey

Primary data was collected through face to face administered questionnaires from 115, micro¹⁷, small and medium enterprises¹⁸ located in the commercial cities of Lilongwe and Blantyre. The survey was conducted in the months of July and August, 2013. The study sample comprised of 47% micro, 44% small and 9% medium enterprises, out of which 84 percent indicated that they were registered¹⁹. The study locations were preferred because an estimated 85% of micro, small and medium enterprises (MSME) are located in the urban / semi urban areas in the central and southern regions (Finscope, 2012). In these urban locations economic activity is comparatively higher than other areas in the country. Small firms were targeted for this study because they do not only have higher financing hindrances, but are also adversely affected by lack of it in comparison to large firms (Beck et al., 2005; Beck and Honohan, 2008; Hansen et al., 2012).

An attempt to utilize the existing MSME business registry list proved insufficient due to the scanty nature of available information. The only comprehensive data available about SMEs in Malawi is the World Bank enterprise survey data for Malawi, which was last completed in 2009. This database was not deemed relevant for this analysis because it does not include

¹⁷ According to the Malawi Micro, Small and Medium Scale Enterprises Policy (2010), enterprises are categorized as Micro if they have 1 to 4 employees, Small if they have between 5 – 20 employees and a turnover of between MK120,000; Medium if they have between 21 to 100 employees, and above MK4million to MK10 million turnover

¹⁸ Micro and small businesses comprise 81% and 17%, respectively, of the MSME enterprises operating in Malawi (Finscope survey, 2012).

¹⁹ Businesses which have a registration certificate; however most of them were not licenced and were not paying any taxes.

social capital indicators. Primary data was therefore collected using a semi-structured questionnaire, which was administered during face to face interviews with business owners. A business had a chance of being sampled if the business had at least one person (apart from the business owner) employed permanently, and having a fixed location of operation during the time of the interview. Both Lilongwe and Blantyre cities have designated trading areas, where most of the businesses are located. Up to 10 popularly known trading areas in Lilongwe and 8 in Blantyre were chosen based on their proximity to where bank branches are located. Enterprises were selected randomly within the chosen designated areas in the two cities. The random selection was preferred due to insufficient available information of all small and medium business operators within the cities.

The semi-structured data collection tool contained questions on firm characteristics, which were adapted from World Bank enterprise survey questionnaires. This was done to enable comparison of results with similar studies conducted within the study country or elsewhere. The questions were designed to capture information about business establishment, owner's characteristics, business activity and growth, sources of funding, social networks and interpersonal social connections. The questionnaire used in the study is presented in Appendix A1. To reduce measurement errors in the questionnaire, pilot interviews were conducted with 6 businesses at different levels of growth, prior to the main fieldwork, and these provided useful revisions pertaining to the flow and depth of the questions.

6.3.2 Commercial Banks Survey

The MSME survey captured the borrowers' perspectives but not the lenders' point of view. Therefore, to get further understanding about the factors considered when making lending decisions in commercial banks, in depth interviews were conducted with 14 credit managers and officers from 6 out of 12 commercial banks, who agreed to be interviewed. One of the banks interviewed among the six banks is one of the two largest banks commanding 45% of the market. The sample also included all the commercial banks with a microfinance window, and a considerable presence in micro and small enterprise lending. Information about the banks that is presented in this paper is aggregated to avoid disclosure of privileged information pertaining to specific banks. The interview guide used during the discussion is presented in Appendix A2.

6.4 Analysis of Survey Results

Access to credit refers to current users of financial services, including those who voluntarily exclude themselves because they have no need for credit, or they perceive costs to be too high (Claessens, 2006). In other studies access and usage are treated synonymously (Honohan, 2008). This analysis adopts Claessens' (2006) definition and identifies all respondents with a bank account to have access to credit. Access in this case implies a combination of potential use, and actual use of credit. In line with the adopted definition, discussions with bank officials revealed that all prospective credit clients are encouraged to have an account with the bank from which they are getting credit. Ninety eight percent of the sampled respondents indicated that they had at least a bank account, even though not all accounts held by the respondents were business accounts. Therefore, the hindrance to use of credit, in the sampled population, was not access but meeting conditions required to use the credit.

Apart from social connections, size of the business was another unit of measurement used in the analysis. The size categorization of the businesses was based on the number of employees rather than sales volumes, because of the unstable inflation levels in the study economy, which contributes to changes in the value of the sales. Additionally, due to nonstandard definition of part-time and full-time employment information among the SMEs, total employment figures were used.

Table 6.1 Summary Statistics of Main Variables

Variable*	Description	N	Mean	σ
Howlikely1	Perceptions of connections affecting credit application positively with 1 if most likely, 2 if very likely, 3 if likely, 4 if maybe, 5 if never	115	3.25	1.41
Age	Grouped age of SME owner or manager in 2013 with 1 if 18-35, 2 if 36-45, 3 if 46-55, 4 if 56 and over	115	2.00	0.79
Gender	1 if SME head female, 0 otherwise	115	0.30	0.46
Trade	1 if SME operates in the trade sector, 0 otherwise	115	0.43	0.50
Registration	1 if SME registered, 0 otherwise	115	0.83	0.37
Investment	1 if SME made additional investment since establishment, 0 otherwise	114	0.69	0.46
Turnover	Natural log of average monthly turnover for 2013	105	13.79	1.30
Years with bank	Natural log of number of years with same bank	102	1.43	0.73
Business age	Age of SME since start up	115	6.92	6.06
Business age2	Age of SME since start up, squared divided by 100	115	0.84	1.56
Activity involvement	1 if SME involved in activities enabling interaction with bank officials, 0 otherwise	113	0.36	0.48
Network member	1 if SME head is a member of any networking group, 0 otherwise	114	0.41	0.49
Family source	1 if source of initial capital was family , 0 otherwise	115	0.17	0.38
Savings source	1 if source of initial capital was own savings, 0 otherwise	115	0.69	0.47
Education	Highest education attained by SME head	115	4.28	1.74

*For dummy variables, the mean indicated represents, the proportion of respondents who selected 1, while for the other categorical variables the mean indicates the average category.

+ 1 if primary, 2 if secondary (form 1 and 2), 3 if secondary (form 3 and 4), 4 if vocational, 5 if other College, 6 if graduate (domestic), 7 if graduate (foreign), 8 if postgraduate.

Table 6.1 displays a summary of the key variables about the sampled population that will be discussed further in the chapter. The business owners had an average age of between 36 – 45 with a gender distribution of 30% females and 70% males. The businesses had been in operation for an average of 7 years, an indication of considerable experience in the businesses. The mean number of years with a bank account was 5 years with a range of 1 – 20 years. Over 50% of the businesses had maintained an account with a bank for up to 4 years. The mean highest education attained by the owners was a post-secondary school education. This could indicate that a number of people, who go past secondary school education, become self-employed, due to high unemployment levels.

6.4.1 Factors Affecting Access to Credit

Access to credit still ranks as one of the major obstacles to enterprise growth especially in developing countries. This MSME survey established that major problems affecting business growth were high tax rates (60.8%), electricity and fuel shortage (66.1%) and obtaining external funding (49.6%) (Figure 6.1).

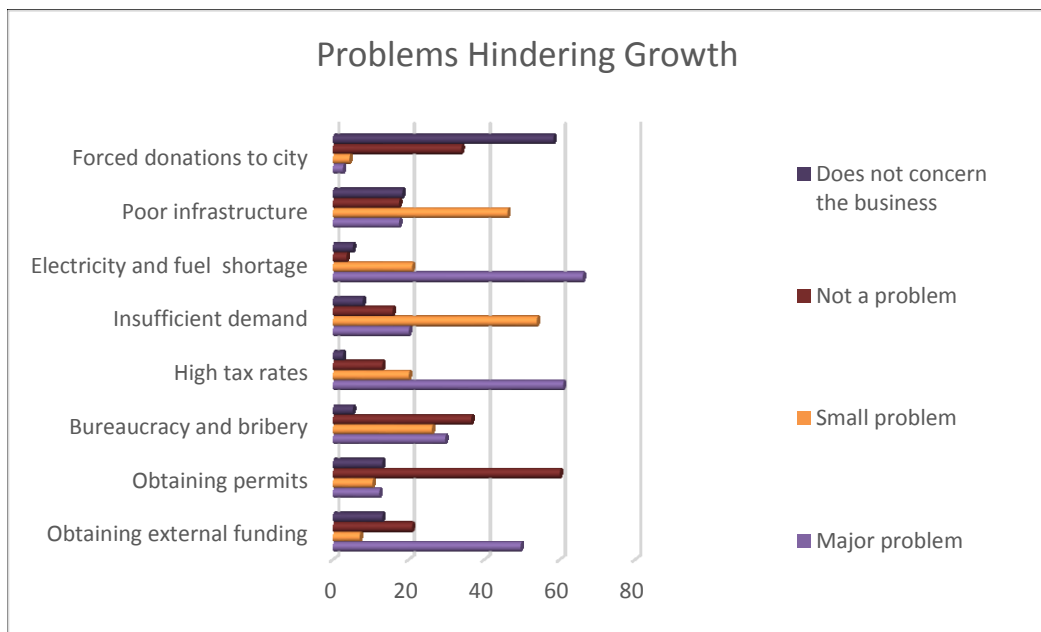


Figure 6.1 Problems Affecting Business Growth

These results correspond with the World Bank 2009, enterprise survey results for Malawi that reported that inadequate electricity power, high tax rates and lack of funding were among the top five key obstacles for enterprise growth. This confirms the earlier observations (see Chapter 5) that the key barriers to business growth in developing countries lie in the unfavourable operating environment and the lack of capital. The limited source of formal credit available on the market (see Chapter 6.1.1) worsens the situation further. While in the developed world, access to capital may be easier due to numerous sources from which SMEs could potentially obtain formal credit, if they meet conditions, the situation is opposite for developing countries, resulting in greater reliance on informal sources. However, informal sources are not sufficient to meet growing business investment financing needs. The Malawi Finscope (2012) survey established that most of the businesses in Malawi are in the growth stage (3 to 5 years of operation), which is the stage that requires the highest support for growth.

6.4.2 Source and Ease of Access to Credit

The business owners were asked to indicate the level of easiness in accessing credit from various available sources. Getting credit from family (46.49%), friends (48.25%), a microfinance institution (48.25%) and a credit union (42.48%) was easy (Figure 6.2). This is expected due to the large number of enterprises that operate informally in developing countries. Accessing credit from commercial banks was mainly difficult (47.37%) or very difficult (35.96%). A similar response pattern was also observed across the MSME categories (Figure 6.3). Using a Chi squared test, there was no significant difference in level of ease in getting credit among micro, small and medium enterprises, $\chi^2 (2, N = 114) p > 0.05$. Although level of easiness from other sources, other than commercial banks, was reported to be easy, the effect of credit from such sources on growth of business would be minimal because of the lack of capacity to provide substantial amounts for long term investment. It was therefore not surprising to note that although 69% of the businesses were established using own savings, 79% and 19% were planning to source business growth capital from commercial banks and / use retained profits respectively.

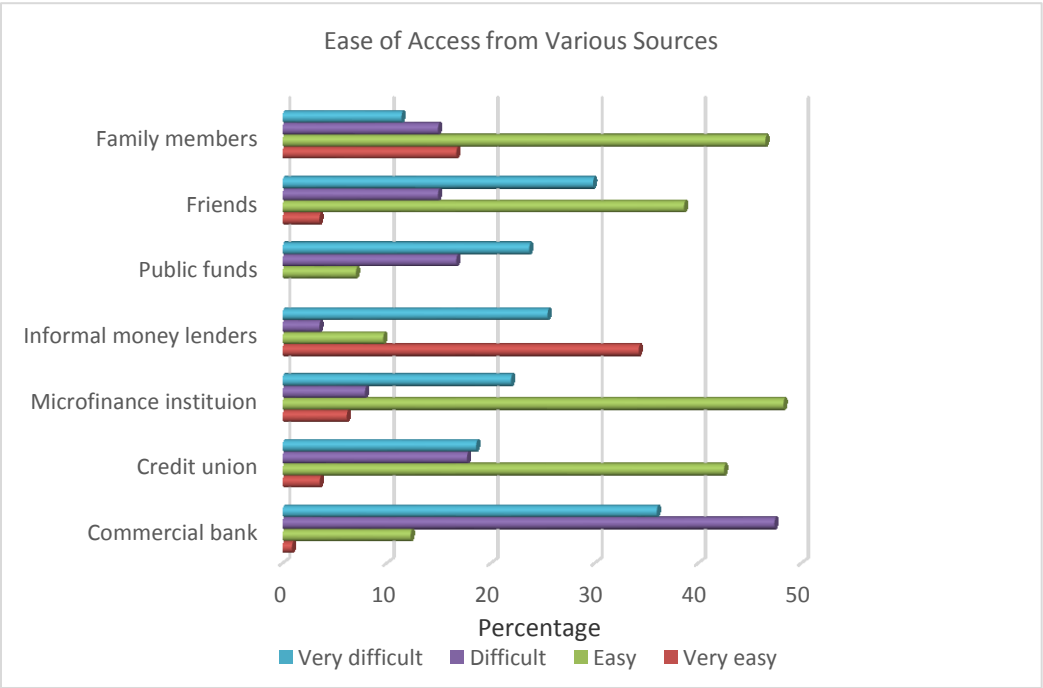


Figure 6.2 Source and Ease of Access to Credit

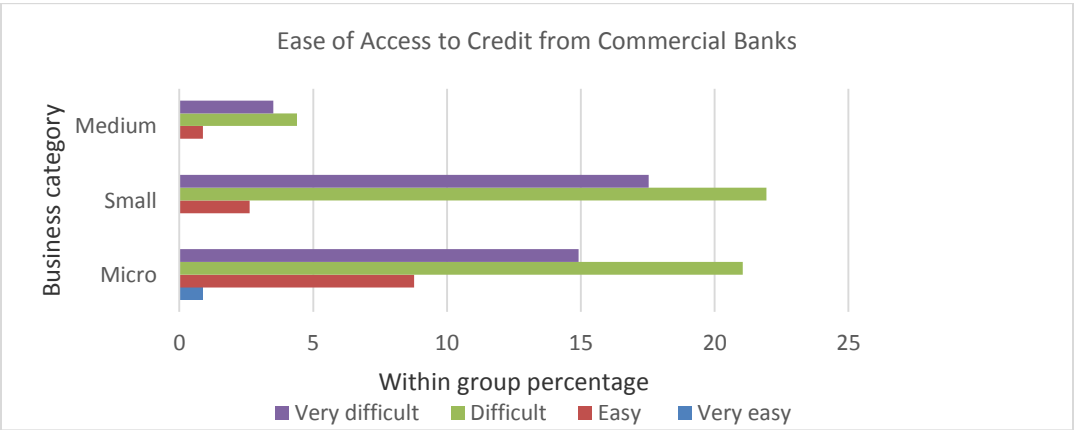


Figure 6.3 Ease of Access to Credit by Business Category

Expressing interest to obtain credit from commercial banks only indicates the available demand but does not guarantee utilization of the credit facilities being offered by commercial banks. Interviews with bank personnel revealed that all banks have standard procedures and requirements for access to credit, which includes assessments of capacity to repay, collateral,

character, and the type of investment among others. From the lenders' point of view, the key hindrance for MSME to obtaining formal credit is poor financial recording and lack of collateral. This corresponds to Beck et al.' (2008a) findings that for both developing and developed countries financial assessment of a business is the most important criterion in small and medium business lending. Other hindrances include credit history, firm owners' characteristics and collateral for developing countries. It is difficult to convince a bank to lend money to a business if the business cannot provide reliable information about their current operations (Hansen et al., 2012).

Banks in developing economies have limited information, skills and regulatory support to engage in extensive SME lending (Hansen et al., 2012; Beck et al., 2008a). SMEs were not able to borrow from commercial banks due to lack of collateral (33.9%) and high interest rates (28.7%). In Malawi lending interest rate was on average 36%, between 2012 and 2015 (see Chapter 4.2.1 for details). Only 5.2% cited poor records as a major hindrance (Figure 6.4). This indicates a mismatch in information between what lenders know as major problems affecting access and what borrowers know or have experienced. In a review of market dynamics to understand what SME borrowers expect from bankers in USA, Abbe et al. (2001) found that attitude of borrowers influences demand for credit. Conflicting information between lenders and borrowers complicates the adverse selection and moral hazard problems.

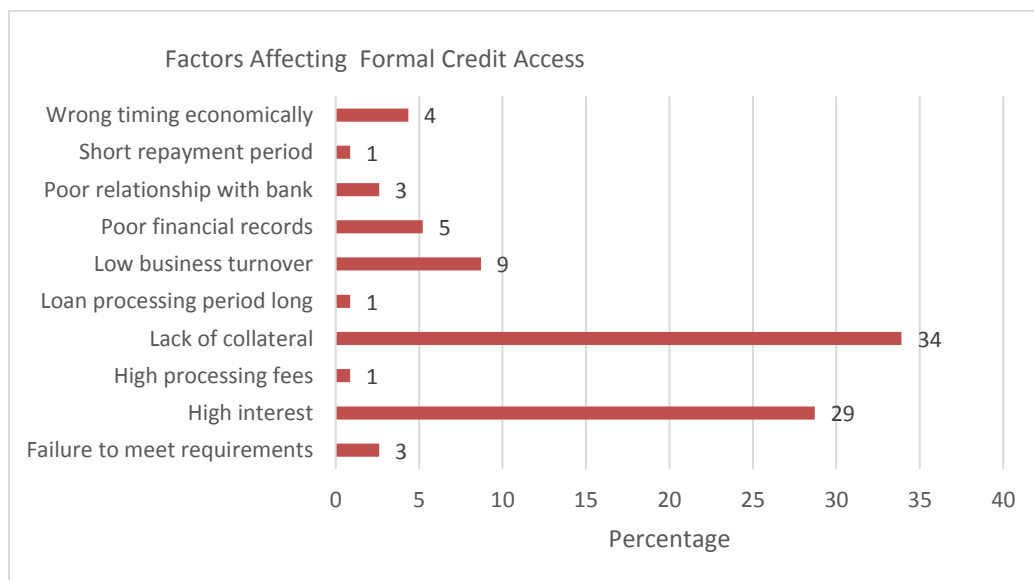
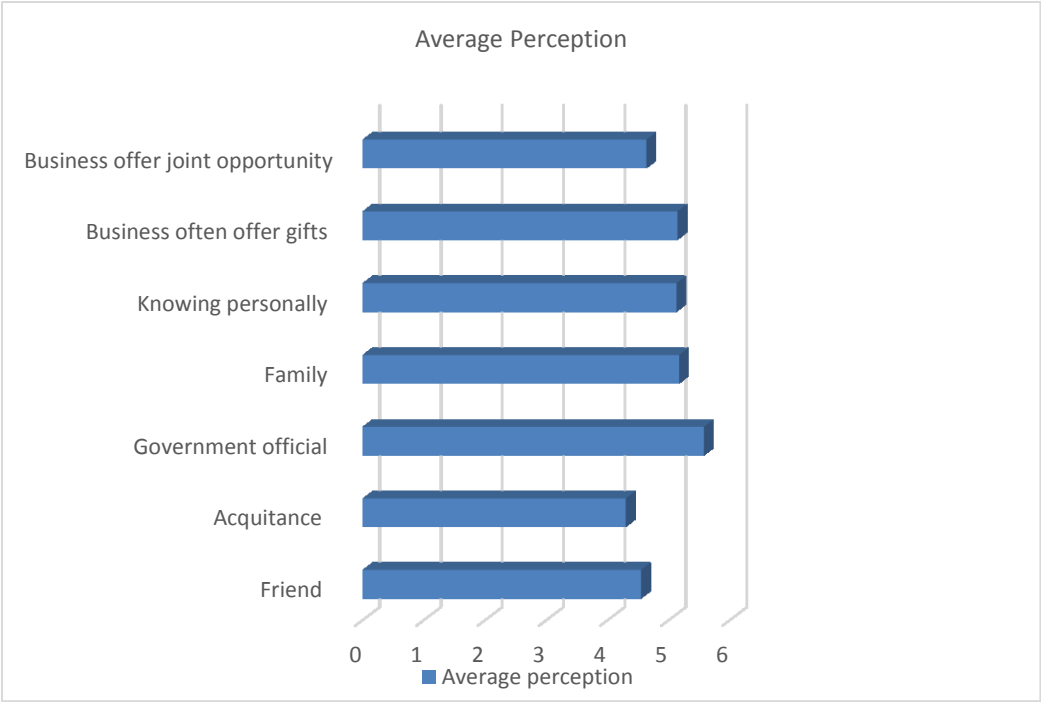


Figure 6.4 Factors Affecting Access to Credit

6.4.3. Social Connections and Formal Credit Perceptions

A comparison between lenders' and borrowers' perceptions on the likelihood of getting credit, when one has social connections with bank personnel, showed that both borrowers and lenders believe that it is likely for a business to get credit when they are known personally by the credit officers or any high ranking officer within the bank. However, the reasons behind such perception differ. Lenders acknowledged that connections enhance collection of private information and easier monitoring. This makes sense, considering that where lenders have targets for loan portfolios, it is easier to deal with businesses whose owner one knows personally because it makes the credit analysis process quicker as well as easier to monitor. On the contrary, borrowers perceive that such processes occur due to corruption, hence it was not surprising to find that 70% of businesses perceived that it is likely for businesses to offer gifts to influence financiers, out of which 16% expressed willingness to offer gifts to obtain credit. It was further revealed that businesses often offer gifts in an expectation that it will influence outcome of loan application. However, no evidence was uncovered to indicate that the offers have an influence because it was a sensitive question for the respondents to answer. This suggests a manifestation of rent-seeking behaviour as other people try to profit from the web of interpersonal relationships (Rose, 2001; Dasgupta, 2009). Using primary data of 502 SMEs in Uzbekistan, Ruziev and Midmore (2015) also reported that small fraction of formal credit channelled to SMEs is unequally distributed, favouring those which can capitalize on interpersonal links with government and bank officers. However, whether one receives a gift or not might not necessarily influence the decision. The loan application goes through various stages and scrutiny, especially for large amounts, but availability of information about the businesses operations matters most in this process. A gift given in such cases could be associated with getting a positive response when the application was still going to have a favourable response either way, hence the rent-seeking behaviour.

Figures 6.5 and 6.6 display the ratings of the lenders, and business owners on effect of connections respectively. The bank officers interviewed had experience of working in the bank for an average of 9 years. Since one bank officer serves a lot of businesses, comparing their responses to business owner’s responses was therefore justified.



Note: 1=Never, 2= Very unlikely, 3= unlikely, 4= No effect, 5=Likely, 6=very likely, 7= Always

Figure 6.5 Informal Connections and Formal Credit (Borrowers)

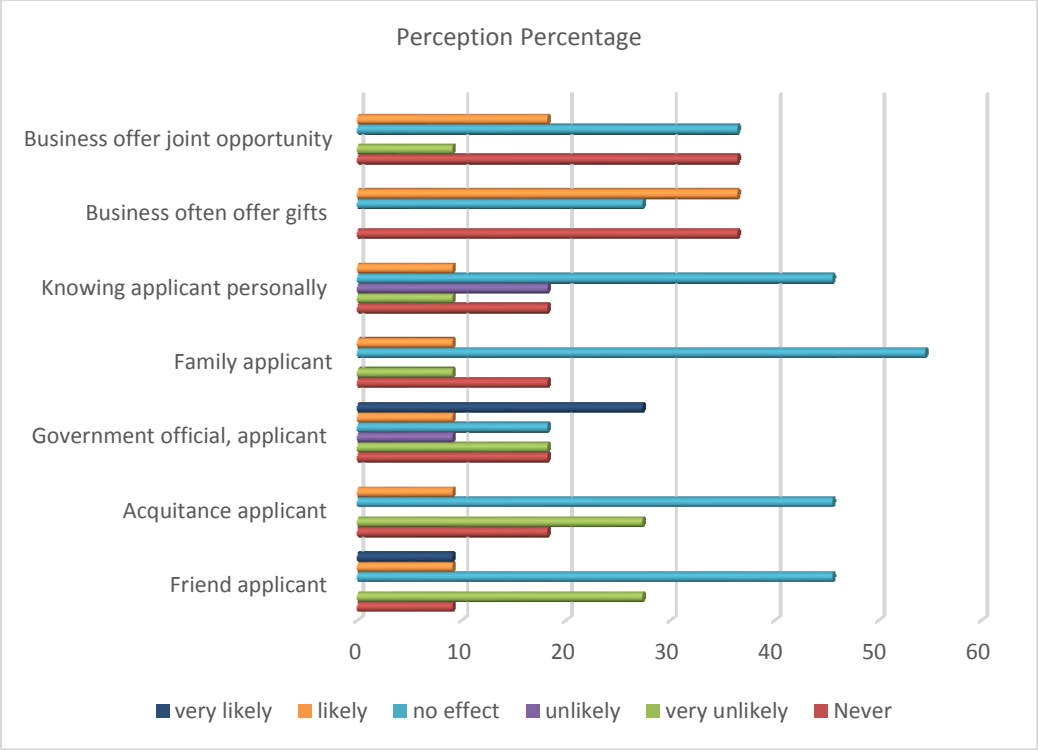
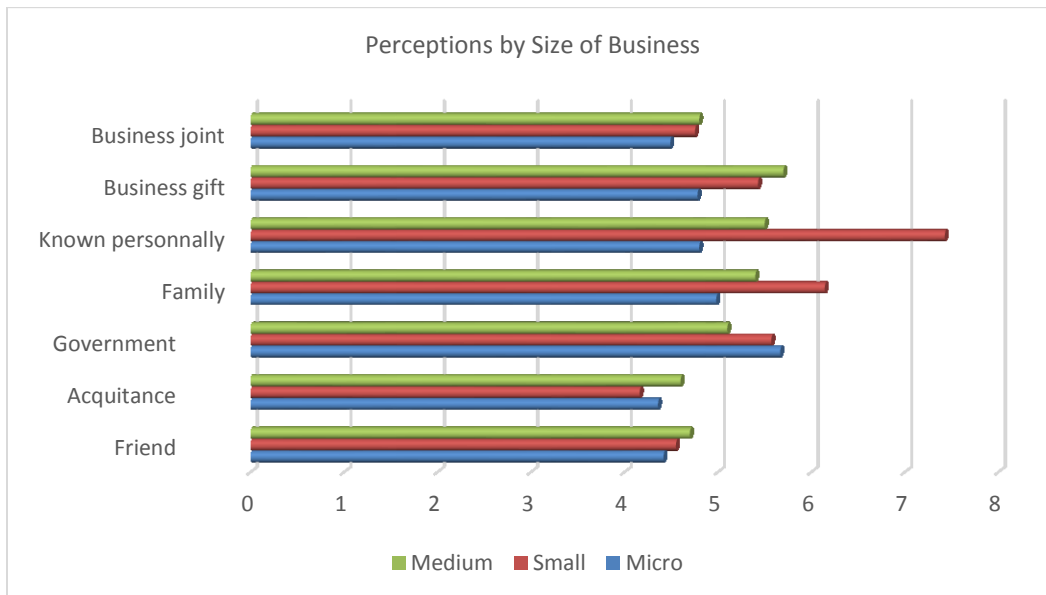


Figure 6.6 Informal Connections and Formal credit (Lenders)

On average, borrowers perceived that having social connections with lenders is likely to influence loan application outcomes. Both bank officers (35%) and businesses (70%) indicated that a Government official applicant is more likely to get credit from a bank. A government official will most likely have the necessary requirements to get the loan, for example having their pay deposited directly into an account, and tracking them is easier as they are public figures. Business owners further perceive that knowing an applicant personally (42%) influences a positive outcome because the bank personnel has more information about the business which is not available in any formal records for decision making. This corresponds with Putnam’s (2000) observation that networks that create social capital also serve as channels for the flow of information that facilitates achievement of goals.

6.4.4. Size of Business and Perceptions

Access to formal credit is easier when a business is comparatively large. An analysis of perceptions by business size revealed that on average businesses perceive that social connections likely affect credit access, regardless of business size (Figure 6.7)



Note: 1=most unlikely, 2 = very unlikely, 3 = unlikely, 4= no effect, 5= likely, 6= very likely, 7= most likely

Figure 6.7 Average Perception by Business Size

Since perceptions of effect of social connections on access to formal credit were not different, to check representativeness of the sample an analysis of variance (ANOVA) test was conducted to explore if there were significant differences in the key variables among the MSMEs sampled. Table 6.2 shows the ANOVA results.

Table 6.2 Analysis of Variance

Variable	Mean			ANOVA ⁺
	Micro	Small	Medium	
Howlikely	3.49	2.89	3.3	1.74
Age	1.87	2.26	2.3	3.80**
Gender	0.29	0.3	3.3	0.01
Education	3.53	4.8	2.3	13.69***
Investment	0.65	0.69	0.3	1.19
Network member	0.28	0.52	0.6	4.12**
Trade	0.6	0.3	0.2	6.55***
Turnover	13.25	14.05	15.3	15.30***
Years with bank	1.41	1.38	1.8	1.3
Business age2	0.8	0.92	0.64	0.16
Business age	7	6.74	7.4	0.06
Activity involvement	0.2	0.49	0.6	6.39***
Registration	0.71	0.94	0.1	6.70***
Savings source	0.73	0.64	0.7	0.46
Family source	0.22	0.14	0.1	0.76
Trust	0.31	0.49	0.8	4.87***

* refers to 10%, ** to 5% and *** to 1% level of significance.

+ is F statistic value for ANOVA test.

Source: Survey data

Firm characteristics affect access to financing (Beck et al., 2008a). In agreement with this finding, most of the firm characteristics variables indicated significant differences among the enterprise categories, with most differences being between micro and small; and micro and medium. There were significant differences for the proxy social capital variables *trust* and *network member*. The results indicated no significant differences in views, among the different size categories, regarding the effect of having social connections with banking officers (*Howlikely*), confirming the earlier descriptive statistics of positive perceptions among borrowers. The result provides evidence to not reject the null hypothesis, that size of business does not affect perceptions on effect of social connections on credit access.

6.4.5 Trust in Business Transactions between Lenders and Borrowers

Commercial banks in Africa traditionally lend more easily to the corporate and government compared to SMEs (Calice et al., 2012), because it requires innovativeness on their part to

effectively meet finance needs for this sector. In general, the demand for bank loans is high, compared to the number of available institutions offering credit to SMEs. This may put the lending institutions into a position where they can pick the easier to assess clients, for example, those with financial records, as a way of reducing transactions costs. Pressures put on loan officers to reach desirable lending targets may encourage personnel to first seek clients who they have social connections with, as they have access to private knowledge about the client. In agreement with this finding, Mphuka et al. (2013) also found that banks depend on relationship lending when serving MSMEs. This may indicate that the interaction between many MSMEs and commercial banks is likely to be moulded by other non-quantifiable but critical aspects like trust and character, as perceived by commercial banks (Mphuka et al., 2014)

According to the World Bank's Microfinance Handbook, 'more than any other economic transaction, financial intermediation depends on social capital because it depends on trust between the borrower and the lender' (Ledgerwood, 1999: p.76). Trust in business is a key component which enhances contract obligations between two parties. Social connections and trust are both components of social capital (Glaeser et al., 2000) and they are positively correlated. Banking in developing countries would require a lot of trust between lenders and borrowers, because borrowers have better information about their creditworthiness than the lenders do. Uzzi (1999) concluded that solutions prompted by transfer of private knowledge are valuable because they are distinctive and hard for competitors without private information to imitate. Therefore in circumstances where many borrowers lack sufficient physical collateral, what counts for access to loans is how trustworthy the institutions perceive potential borrowers to be (Heikkila et al., 2009).

This MSME survey established that 57 % of potential borrowers indicated that they did not trust banks to act in their businesses' best interest as entrepreneurs. Generally the feeling was that banks do not make an effort to understand the businesses in order to serve better their interest. A manifestation of misinformation leading to mistrust was also observed with the responses that other entrepreneurs gave, when they were asked why they do not disclose all the businesses' financial information to bankers. According to their perceptions, if the bankers have more information about them personally and their businesses, the bankers would not want to lend their

business money, especially when their business is profitable. Therefore if the business is already doing well, the banker could reject the requests for credit due to jealousy. This perception indicated a low level of trust for the banks amongst the entrepreneurs, and misinformation about why bankers might need to have more information about the business and the entrepreneur. Trust that others place in an actor is in itself capital and this is what helps in obtaining private information, although as indicated, the costs could be high due to risk of abuse of trust (Esser, 2008). In a situation where borrowers do not trust the lenders, transfer of private information is hindered hence lenders cannot use it to make informed decisions on the loan applications. Borrowers expressed concern over either not knowing or not being convinced by the reasons for their credit applications being turned down. When the credit history of a borrower is not known, the relationship between borrower and lender becomes an important determinant of loan approval (Holmes et al., 2007), which requires careful cultivation. Efforts to extend credit, within an environment where credit rating agents are not utilized and businesses do not have good financial records, would not materialize up to the expected potential if there is a low level of trust between the borrower and the lender.

To estimate the level of trust amongst business community the respondents were asked to rate whether they agree or do not agree with the statement ‘Most Malawian businesses can be trusted to work together with’. The question is similar to the standard survey question used for measuring trust: ‘Generally speaking, do you believe that most people can be trusted, or you cannot be too careful in dealing with people’ (Uslaner, 2008). The majority (57%) agreed that most business people can be trusted which is not very different from the 63% who indicated that they borrow money more easily from other people than from a bank.

6.5 Chapter Synthesis

This chapter explored information gaps about factors affecting lending decisions among borrowers and lenders in the commercial banking sector. The analysis indicates a mismatch of information between what lenders look for when making their assessments and what SMEs know to be the requirements for them to access credit from formal financial institutions. The information gap was also manifested in the negative perceptions on how bankers use the

informally gathered information. This gap is one of the contributing factors to low level of credit access by SMEs. The result confirms earlier observations that SMEs are highly restricted in accessing capital, which they require to grow, and banks are hindered with a lack of lender information and regulatory support to engage in SME lending. This results in absence of a well-functioning SME lending market.

On the effect of social connections, both entrepreneurs and bank officers perceived that when a person is known personally, the likelihood of getting a loan is improved. However the reasons behind such perceptions differed, indicating a gap in information which results in neither party achieving what they want as lenders and borrowers. As an extension to the social connections perceptions, an exploration of the level of trust that exists among the borrowers and lenders revealed that the level of trust that SME's have for the banking sector was low. The rule-based trust, which develops following the rules and norms within a society, was found to be high as demonstrated by the 98% of borrowers who indicated that they had a bank account. Having a bank account indicates the trust that borrowers have in the banking system to handle their finances. However, knowledge-based trust, which develops following experience and behaviour' was low. These negative experiences could be contributing factors to the low level of trust observed, and hence the observed perceptions. Trust and social capital matter the most when economic transactions are ruled by incomplete contracts (Cersosimo and Nistico, 2008). Therefore, if borrowers do not trust lenders, holding all other factors constant, demand for credit in the long run could be negatively affected.

A comparison of the perceptions regarding effects of social connections on likelihood of obtaining credit from a commercial bank revealed no differences across the micro, small and medium business categories. This finding could be a reflection of adherence to standard procedures being employed for all businesses fitting into the SME categories. The value of social association and networking between borrowers and lenders is misunderstood at various levels because of lack of information amongst entrepreneurs about how lending decisions are made by bankers. Although networking is vital to improve information flows, sharing of private information is mainly achieved due to the exclusive nature of some networks. Trust between lenders and borrowers need to be enhanced through provision of adequate information regarding

services offered by banks and the associated requirements. If trust is built, available vibrant networks would support such services through information sharing on the conduct of members. Although such efforts are being tried (see Chapter 5), there is need for empirical research to provide evidence of their effectiveness.

This chapter provided evidence on the extent of information asymmetry between the borrowers and lenders within the banking sector in Malawi, by presenting variations in information possessed by the two actors. Before recommending on which options to consider for enhancing access to formal credit for SMEs in Malawi, an empirical investigation into the factors that affect these perceptions among SMEs is explored in Chapter 7.

CHAPTER 7 FACTORS AFFECTING BORROWERS PERCEPTIONS ABOUT SOCIAL CONNECTIONS AND ACCESS TO FORMAL CREDIT: A CASE OF MALAWI.

Due to information asymmetry problems, interactions between micro, small and medium enterprises, hereafter referred to as the borrower, and commercial bank, hereafter referred to as the lender, are shaped by trust and character of borrower, as perceived by the lender. Similarly, borrower's perceptions are expected to be shaped by trust and experiences. Over time the type of relationship built between the borrower and lender is what would matter most to improve access to credit for first-time borrowers in developing countries. Therefore, if credit provision can be shaped by relationship lending, understanding perceptions held by borrowers and the factors that influence them is crucial to developing targeted solutions to the problem of lack of access to formal credit. This chapter uses a principal component probit model to investigate factors affecting perceptions that borrowers hold, regarding access to formal credit, when they possess social capital. In this chapter, social connection, a dimension of social capital, relates to any relationships outside the formal rules of engagement in economic and business transactions between entrepreneurs and bank officers. Primary data used in the analysis is from the micro, small and medium enterprises survey (see Chapter 6.3.1).

7.1 Social Capital, Perceptions and Finance

Although the informal credit market complements the formal sector in helping to ease credit constraints on economically active agents, faster firm growth is associated with enterprises' ability to borrow from formal financial institutions (Ayyagari et al., 2010). Research has shifted attention towards questions of financial access and financial inclusion, with a particular focus on how easily firms and households can take advantage of available formal financial services (Beck and Demirgüç-Kunt, 2008; Spratt, 2008: p.383). Entrepreneurs and households perceptions about where and how to easily get access to credit is one of the issues attracting exploration in financial inclusion studies that are focusing on demand side factors (Bauer et al., 2012; Kostov et al., 2012; 2013). Using evidence from South Africa, Annim et al. (2012) concluded that perceptions about financial services affect the decision to access and use general accounts and services.

Perceptions about financial services can be formed by experience, available information and trust. This phenomenon is partly explained by the theory of ‘Discouraged Borrower’ as explained by Kon and Storey (2003). A good borrower (Discouraged Borrower) would not apply for a loan because of previous rejection experience. The negative experience results in the borrower perceiving that they would not be advanced credit even if they apply, leading to self-selected financial exclusion. This type of financial exclusion prevents targets for financial inclusion, including credit access, from being met. Levenson and Willard (2000) noted that the consequences of discouragement from accessing finance are considered more important than the credit rationing theory advanced by Stiglitz and Weiss (1981). Therefore understanding biases affecting perception and correcting for those biases may lead to more accurate perceptions and healthier relationships between borrowers and lenders, hence ultimately affecting formal credit access decisions.

Several papers written on access to finance have used enterprise surveys²⁰ data, which focuses on perception as a measure (see Beck et al., 2008a; Mulaga, 2013; Kuntchev et al., 2013). Academic research papers and policy documents by the World Bank group and other similar organisations have also used this data. Therefore using perceptions in this chapter is not a novel idea, but understanding factors affecting such perceptions represents a first step to exploring issues affecting access to formal credit for SMEs in Malawi in more detail.

Perception describes the sensory experience of the environment around the unit of analysis, which in this case is the business owner or manager. Although perceptions shape behaviours, perception studies have a potential concern. The concern is that respondents might have different judgements on what constitutes ‘likely’ and ‘very likely’, resulting in rating equivalent issues differently. This can introduce an error into the dependent variable. However, according to Greene (2000), this should not have a large effect as long as the error is not systematically correlated with the independent variable. The error term in the model absorbs the measurement errors (Greene, 2000).

²⁰ www.entreprisearchives.org . The Enterprise Surveys (ES) are an ongoing World Bank project in collecting objective data based on firms’ experiences and enterprises’ perception of the environment in which they operate.

7.2 Social Capital Proxies and Firm Characteristics Variables

It is argued that social embeddedness facilitates transfer of information between lenders and borrowers (Uzzi, 1999). This is because it is through informal connections that information sharing is achieved. Therefore, being socially networked should positively influence the holding of a positive perception. A lack of a single universally accepted definition of social capital in the literature leads to various ways in which social capital can be measured (see Chapter 6 for a discussion). Social capital can be captured as an attribute of individuals (Bourdieu, 1986; Lin, 2001), of families and communities (Coleman, 1990) and of even larger groups like regions or countries (Putnam, 1995, 2000; Serageldin and Grootaert, 2000; Narayan and Cassidy, 2001). Since most small and medium businesses in developing countries are owner managed, attributes of individual owners are used as proxies for how a business is networked, following Lin (2001) and Bourdieu (1986).

A list of predictors used in the model, detailed descriptions and their summary statistics are presented and discussed in Chapter 6.4, Table 6.1. The dependent variable, *Howlikely*, captures the business owners' reported perceptions on how likely informal social connections with bank officers affect lending decisions made by banks. The variable has an underlying ordering having a value of 1 for very likely to 5 for never.

Firm characteristics, human capital and social capital variables capture the environment which affects reported perceptions of the entrepreneur. In a relationship, time permits network partners to learn about and share private information, form bonds of trust and exploit opportunities (Cavaluzzo and Cavaluzzo, 1998; Uzzi, 1999; Uzzi and Lancaster, 2003). The longer the time a business stays with a bank, the better the prospects of accessing credit, as the bank is able to build up a credit history of the client. A higher degree of social connections makes it easier for both lenders and borrowers to reduce asymmetry of information problems, hence contributing to more transparent and quicker lending decisions. High levels of trust enable firms and banks to negotiate contingent loan agreements (Uzzi, 1999). Four social capital proxies are therefore used to capture the diverse attributes of social capital in the model, and they include *activity*

involvement, family source, years with bank and network member. Positive signs are expected for all the proxies.

Longer established businesses have better credit histories and reputations (Cavaluzzo and Cavaluzzo, 1998: p.779). However as the business gains more experience and grows, the effect of private information diminishes as more formal records about the business are now available to the lender. Therefore two variables are included: *business age*, which is expected to have a positive sign, and *business age²*, a squared term, with an expected negative sign.

Entrepreneurial capability, in the model, is captured by *education* and *age* variables. An association between education and social capital has been discussed widely in the literature (see Buerkle and Guseva, 2002). If human capital is not linked to social capital, it is weakened both as an analytical tool and as an asset, because it is harder to acquire, and its value is harder to realize (Schuller, 2007). Educated entrepreneurs are likely to be more networked because of relationships built with friends and colleagues in school, and have a better understanding of the value of networking. A decision to go to school is considered as self-selection (Cameron and Heckman, 2001), and therefore the argument follows that staying longer in school may result in a lower cost of investment in social capital. Higher level education is expected to have a positive sign. Similarly, the older the entrepreneur the greater the amount of experience, and this is what affects perception. A positive sign is expected for *education* while *age* could have either a positive or a negative sign depending on type of experiences the entrepreneur has had.

Firm characteristics such as size, growth, age, and industry in which the firm operates all affect financing of SMEs (Beck et al., 2008a; Abor and Biekpe, 2009; Mulaga, 2013). It is therefore appropriate to explore whether similar characteristics have an effect on business owners' perceptions. It is expected that the effect would be similar because it is the same financing owners, whose perception is being investigated. Firm size affects access to finance from commercial banks i.e. small enterprises are less favoured compared to large firms (Fatoki and Asah, 2011). This results in small firms' low usage of external finance. Large firms are usually more diversified in their operations, hence they are more stable and less risky ventures compared to small firms. Size can therefore be substituted for insolvency (Honohan, 2008). The variable

measuring turnover, *turnover*, is a proxy for enterprise size. Large businesses are expected to have higher turnovers than small businesses and hence gain easier access to finance. Business size would therefore have both negative and positive expected signs.

The industry in which a business is operating can influence access to finance, although the major determinant is through composition and nature of assets possessed by the firm (Hall et al., 2000). However, this effect also depends on other economic factors, and hence there is no priori expectation of the sign of coefficients. According to the Malawi Growth and Development Strategy II (2011), deliberate efforts are being made at various levels to specifically direct credit to SMEs. In this case industry of operation would have an effect on access to external credit for businesses. An interaction factor of trade industry and size is therefore included and is expected to have a positive sign.

In Malawi a business registration certificate is one of the requirements for a business to be able to open a business account and access credit as a business. However, there is less documented evidence on associated comparative advantages of registration²¹ for small businesses. *Registration* is less likely to affect a business owner's perception of the effect of social connections and access to finance hence expected to have a negative sign. The other variables, which capture factors that can affect perceptions in the model, do not have a priori expectation. Perceptions could easily be built through experience or word of mouth. The expected sign for *investment*, *savings source* could be negative or positive depending on experiences borrowers have had with where the funds were sourced from.

The final variable included is a gender dummy, because the key drivers of a gender gap observed in sub Saharan Africa are firm characteristics, especially size of business (Aterido et al., 2013). Females tend to own smaller sized businesses which have less access to external financing. Therefore, gender is expected to have a negative sign.

²¹ A Business Registration Impact Evaluation study is being implemented by Impact for Poverty Action (IPA) in partnership with the World Bank and Government of Malawi. See Appendix C1 for more details about the study.

7.3 Empirical Analysis

The relationship between the outcome variable, *Howlikely*, and sets of explanatory variables such as firm characteristics and social capital proxy variables, is estimated using an ordered probit model, first considered by Aitchison and Silvey (1957). The model was preferred because it uses a maximum likelihood probability, and hence gives the most efficient estimations when dealing with qualitative dependent variables (Long and Frees, 2006).

The variable of interest, likelihood of connections having a positive effect has an underlying ordering taking the value from 1 if most likely to 5 if never. The model was chosen because it accounts for the ordinal nature of the five likelihood categories. Ordered models are suited to use when dependent variables are discrete and inherently ordered into categories because they closely resemble conventional linear models when analysing ordered categorical data (Snapinn and Small, 1986). The ordered probit was preferred over other suitable models like multinomial probit models which do not take into account the ordinal nature of the dependent variable, and linear regression, which would treat the rankings for their absolute values. The ordered logit model was also a possible fit; however, in practice logit and probit models give similar results. The ordered probit was chosen over logit because it uses a normal distribution function for the error term.

The assumption in the ordered probit model is that Y^* , a latent index of how individual social connections affect lending decisions is a function of some factors that can be measured and a few other unobservable factors represented by ε . It is assumed that ε is normally distributed with an expected mean value of zero and variance of unity. The latent index measures the business owners' perception of how likely it is to get a loan from a bank if the bank officer is personally known to the entrepreneur. Once the Y_i^* crosses a certain value the business owner reports a perception level which is observed. To capture the observed values business owners were asked '*How likely is it for you to get a loan from a bank if you know the credit officer personally?*' The following options were offered $Y_i = (1, 2, 3, 4, 5)$ for (most likely, very likely, likely, maybe and never). The model to be estimated follows Annim et al., (2012), Kostov et al., (2012) and Aitchison and Silvey (1957) and takes the following form:

$$Y_i^* = \alpha + Z_i\gamma + X_i\delta + \varepsilon_i \dots\dots\dots (7.1)$$

Where, Z is a vector of predictors that affect the probability of a firm i to belong to a certain category of perception. Z includes both continuous and categorical variables on firm characteristics, and X includes social capital proxies. The parameters to be estimated are α , δ and γ ; ε_i is the error term. The interval rule, therefore, follows that;

$$\begin{aligned} y_i=1 & \text{ if } y_i^* \leq u_1 \\ y_i=2 & \text{ if } u_1 < y_i^* \leq u_2 \\ y_i=3 & \text{ if } u_2 < y_i^* \leq u_3 \\ y_i=4 & \text{ if } u_3 < y_i^* \leq u_4 \\ y_i=5 & \text{ if } y_i^* > u_4 \end{aligned} \quad (7.2)$$

u_1, u_2, u_3, u_4 , are unknown average threshold parameters to be estimated together with γ 's and δ 's. The value of the index necessary to push the respondent from choosing most likely to never is not known and the values, in theory, are different for everyone. Therefore calculating the probabilities of choosing any likelihood category given the above entails use of estimated threshold values. Given the cumulative normal distribution function $\Phi(x' \beta)$, the probabilities can be shown as below:

$$\begin{aligned} \Pr(y_i=1) &= 1 - \Phi[x_i \beta - u_1] \\ \Pr(y_i=2) &= \Phi[x_i \beta - u_1] - \Phi[x_i \beta - u_2] \\ \Pr(y_i=3) &= \Phi[x_i \beta - u_2] - \Phi[x_i \beta - u_3] \\ \Pr(y_i=4) &= \Phi[x_i \beta - u_3] - \Phi[x_i \beta - u_4] \\ \Pr(y_i=5) &= \Phi[x_i \beta - u_4] \end{aligned} \quad (7.3)$$

The estimated simple probit model used a large number of predictors hence potentially introduced a wider dimensionality and increased probability for redundancy in the data. To avoid

such redundancies, and also check consistency in the results, a principal component analysis²² (PCA) ordered probit regression model is also estimated with *Howlikely* as the dependent variable. The PCA approach follows Sabatini (2005), and the components are used in an ordered probit model.

7.4 Synthesis of Results

7.4.1 Descriptive Analysis

The distribution of the micro, small and medium businesses interviewed is presented in Figure 7.1. According to the 2012 country wide Finscope MSME survey for Malawi, only 41% of businesses employ labour, out of which the large majority (81%) are categorised as micro, 17% small and only 2% are medium. However, in total the small and medium scale businesses employ 66% of all of the paid labour force in Malawi.

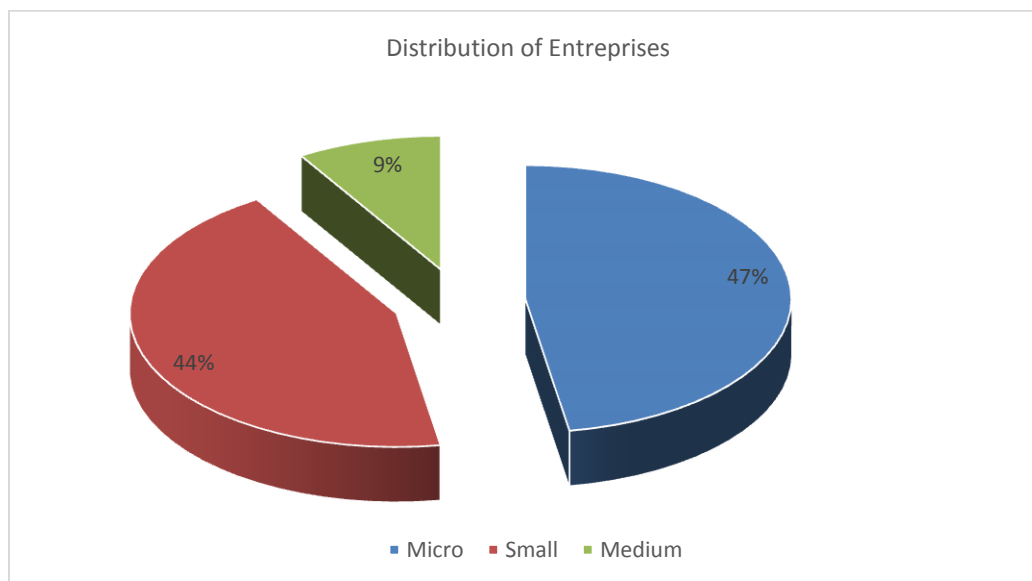


Figure 7.1 Distribution of Enterprises by Size

Table 7.1 shows a multivariate analysis of means for the dependent variable, *Howlikely*. There are significant differences in means among the 5 categories of perception based on *network member, turnover and activity involvement* variables. However to obtain more efficient results

²² Principal component analysis is a statistical procedure which allows identification of the principal directions in which the data varies.

from a multivariate analysis, the sample size needs to be large. Therefore to verify results from the multivariate analysis, regression on probability of the variables affecting perceptions provided further evidence on factors that affect perceptions.

Table 7.1 Summary Statistics of Main Variables by Likelihood Categories

Variable	MOST LIKELY			VERY LIKELY			LIKELY			MAYBE			NEVER			Manova ⁺
	N	Mean	Std.Dev	N	Mean	Std.Dev	N	Mean	Std.Dev	N	Mean	Std.Dev	N	Mean	Std.Dev	
Age	18	1.89	0.47	19	2.32	0.75	24	1.88	0.95	24	2.17	0.87	30	2.13	0.73	0.44
Gender	18	0.50	0.51	19	0.16	0.37	24	0.25	0.44	24	0.29	0.46	30	0.30	0.47	0.44
Education	18	4.72	1.32	19	4.26	1.94	24	4.42	1.56	24	4.50	1.87	30	3.73	1.84	1.69
Investment	18	0.83	0.38	19	0.74	0.45	24	0.71	0.46	24	0.67	0.48	29	0.59	0.50	3.42*
Network member	18	0.67	0.49	19	0.37	0.50	24	0.50	0.51	24	0.38	0.49	29	0.24	0.44	7.02***
Trade	18	0.33	0.49	19	0.42	0.51	24	0.42	0.50	24	0.38	0.49	30	0.57	0.50	1.93
Turnover	17	13.93	1.50	17	14.41	0.93	22	13.98	1.27	22	13.64	1.33	27	13.29	1.23	6.21**
Years with bank	17	1.29	0.63	17	1.53	0.75	20	1.34	0.87	22	1.29	0.74	26	1.64	0.63	1.12
Business age	18	5.39	4.17	19	9	8.01	24	6.58	6.05	24	4.83	4.89	30	8.47	5.6	1.28
Business age2	18	0.46	0.61	19	1.42	2.90	24	0.78	1.25	24	0.46	0.83	30	1.06	1.33	0.09
Activity involvement	18	0.50	0.51	17	0.53	0.51	24	0.33	0.48	24	0.33	0.48	30	0.23	0.43	5.23**
Registration	18	0.89	0.32	19	0.89	0.32	24	0.83	0.38	24	0.88	0.34	30	0.73	0.45	2.15
Trust	18	0.61	0.50	19	0.63	0.50	24	0.71	0.46	24	0.71	0.46	30	0.73	0.45	1.01
Savings source	18	0.39	0.50	19	0.47	0.51	24	0.46	0.51	24	0.5	0.51	28	0.36	0.49	0.12
Family source	18	0.11	0.32	19	0.16	0.37	24	0.21	0.41	24	0.25	0.44	30	0.13	0.35	0.06

Note: N is number of observations, * refers to 10%, ** to 5% and *** to 1% level of significance in a two tailed test. + Wilk's λ F statistic value for a multivariate analysis of variance test.

Std.Dev = standard deviation

Source: Survey data

7.4.2 Model Estimation Results

Two models are estimated to establish factors affecting perceptions of MSMEs regarding social capital and likelihood of accessing credit from commercial banks. Table 7.2 reports estimation results of the ordered probit and principal components analysis models. The same independent variables are used in the two models for ease of comparison of the results.

Table 7.2 Probit and Principal Components Estimations

Predictors	Expected sign	Model 1	Predictors	Model 2
Gender	-	-0.60* (0.31)	pc01	-0.164* (-2.53)
8.Education	+	2.95** (1.18)	pc02	-0.216** (-2.68)
Investment	+	-0.97*** (0.36)	pc03	-0.141 (-1.58)
Network member	+	-0.56* (0.30)	pc04	0.0455 -0.46
Trade	+	0.47* (0.28)	pc05	-0.0901 (-0.81)
Savings source	+/-	0.83** (0.40)		
Family source	+/-	1.13** (0.53)		
Cutoff1		-2.63* (1.60)		
Model evaluation				
Number of observations		88		88
Log likelihood		-119.75		-132.33
Likelihood ratio test , χ^2 (d.f.)		41.15(22)***		15.97(5)***
Link test (_hatsq)		0.05		0.46
Pseudo R ²		0.15		0.06

* $p < 0.1$; ** $p < 0.05$; *** < 0.01

Model 1: Ordered probit estimation

Model 2: Principal Component Analysis probit estimation

pc01= Experience, network, education, pc02= Years with bank, revenue, experience, pc03= Capital source, years with bank, pc04 = Age, additional investment, registration, pc05 = Gender, trade, revenue

Ordered Probit Analysis

Overall model fit for ordered probit analysis is confirmed using a Log likelihood ratio ($p < 0.01$) and a link test ($p > 0.05$), which indicated a good fit and well-specified model. A link test is utilised to test the hypothesis that residuals are normally distributed, and this is not

rejected, ($p > 0.05$). The number of usable observations was reduced to 88 in the model because of missing values in some observations.

In the ordered probit model results, a positive coefficient value of a variable indicates that an increase in a one unit of the explanatory variable increases the probability that a response will be of a positive perception. The results indicate that education, trade and size interaction factor, source of initial capital and years a business has had a bank account are all more likely to influence the self-reported perception of informal connections affecting credit access. The explanation could be that education and length of relationship with bank enhances sharing of information through better understanding of requirements and procedures, building of trust between the lender and the borrower and building up records and credit history by the lender. Notably, only higher education category is found to be positive and significant, while the number of years with bank was positive but not significant. The number of years with a bank might not have an effect if the account was not active enough to provide a credit history to the lender.

The source of initial capital is significant and has a positive sign. The survey revealed that 79% of the businesses started operating by using their own savings or using funds from family members (20%), however as the business grows the need for external financing becomes unavoidable. Cassar and Holmes, (2003) showed that as the firm grows, demand for internal funds grows, and hence the need for external funds increases. In agreement, Mulaga (2013) found a positive significant relationship between firm growth and external financing for SMEs in Malawi. This provides evidence to explain why firms with limited or no access to external capital may, after all, not be able to pursue an optimal investment policy (Demirgüç-Kunt and Maksimovic, 1998; Knyazeva et al., 2009).

Being a member of a social network increased the probability of having a negative perception level and it is significant at 5%. Social connections enhance sharing of information which is vital in business transactions. Availability of information enables providers of external financing to assess the quality of project finance applications (Mulaga, 2013). The negative sign in this case is evidence of non-availability or non-participation of networking initiatives between the lenders and the borrower, or networks do not provide expected services for business growth. A significant relationship between networks and access to resources from bankers by small firms was also reported by Katungi (2006) for Uganda. Despite the

usefulness of enhancing social capital amongst businesses through networking, this approach is not common in Malawi and businesses often lose out on opportunities gained through information sharing²³. Low participation in business networks is not only because of poor infrastructure but also dormant networks, which might not present themselves to the enterprises as worthwhile paying for membership subscriptions. However, membership of social networks is of particular importance in developing countries because the business operating environment is weighed down with corruption, lack of human and material resources, poor management and inefficient judicial systems (Biggs and Shah, 2006)

The indicator variable *age*, although not statistically significant, increases the probability of having a positive perception. Social capital proxy *network member* was significant but did not have the expected sign indicating the importance of social capital as a determinant of perception. The results indicate that social capital increases the probability of having a negative perception. This result could be because many businesses do not engage with other entrepreneurs by belonging to a business grouping or have not benefited from any such groups, and hence do not hold positive perceptions about benefits of such groupings. *Activity involvement* was not significant, confirming the limited social interactions between lenders and borrowers, neither directly nor indirectly through other groups. Lenders usually have formalised social interactions with larger businesses or through corporate social responsibility activities. However, such connections with SMEs are limited because SMEs are numerous, and hence not cost effective for the banks to engage in similar type of social connections. Holmes et al., (2007) noted that social capital is an important determinant for loan approval where the credit history of borrower is unknown. Networks can therefore create symbiotic relationships between bank and borrower, leading to sustainable delivery of services including credit (Maxwell, 2004).

Another proxy for social capital, *years with bank* indicated that an increase in years of being with the same bank influences positive perceptions of entrepreneurs, but was not significant. This could be because holding an account with a bank does not automatically result in easier access to credit but the account has to be active in order to give the lender an opportunity to estimate cash flows, as well as inform the borrower accurately about suitable products.

²³ <http://businessinnovationfacility.org/profiles/blogs/key-issues-about-malawi-s-mSME-sector-development>
Accessed on 17th February, 2014.

Principal Component Analysis

Some of the variables used in the ordered probit analysis were proxies of similar factors in the model, which hence raises the possibility of multicollinearity. Formal tests to verify use of principal component analysis (PCA) to deal with multicollinearity were applied. The basic idea of a principal component analysis is to represent a set of predictors, in the model, by a smaller number of predictors termed components. The Kaiser Meyer-Olkin measure verified the sampling adequacy, $KMO = 0.60$, with most variables being above the acceptable limit of 0.5 (Field, 2009). Although according to Field (2009), the recorded KMO measure is categorised as mediocre, Bartlett's test of sphericity $\chi^2(105) = 474.53, p < 0.001$, indicated that correlations between the variables were sufficiently large for PCA. A principal component analysis (PCA) was therefore conducted on the 14 variables, with oblique rotation (*promax*). A screen plot of Eigen values against component number was done to visually aid determination of the appropriate number of principal components to use (Figure 7.2). Eigen values are the variances being accounted for by the principal components, and hence the components accounting for small proportion of variation (i.e. those with small Eigen values) are not used. The elbow shape in the scree plot is taken to be the point where remaining Eigen values are relatively small and about the same size, indicating the corresponding number of components to use.

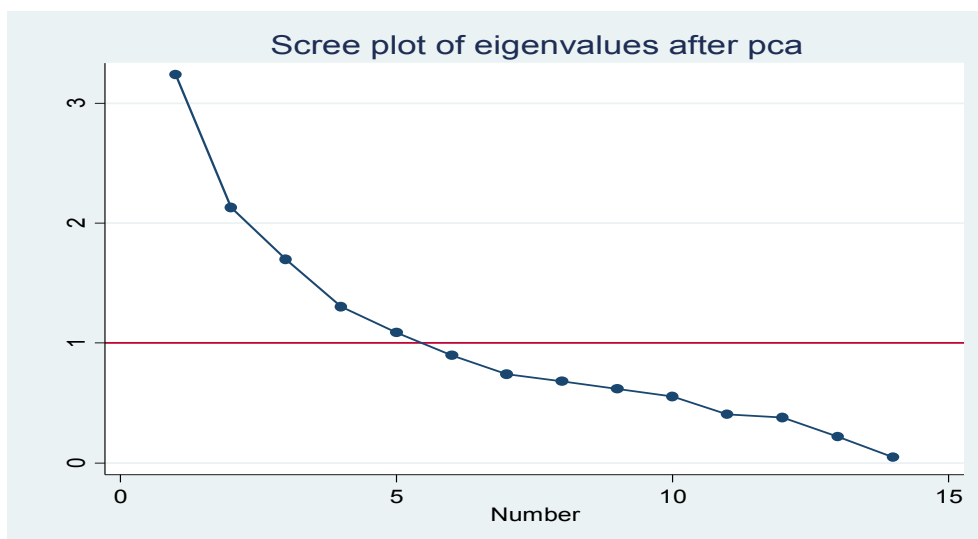


Figure 7.2 Scree Plot of Eigen Values

Correlations between the original data for each principal component and variable were computed to aid with interpretation (Table 7.3). A subjective value of 0.5 and above was deemed to indicate a strong correlation and interpretation was based on such values. Five components with Eigen values of over 1 were used in the analysis and in combination they explained 67.53% of the variation. Both Eigen values analysis and correlation analysis indicated similar variables that contributed more to the components that were used in the regression.

Table 7.3 Variables for Principal Component Regression

Variable	Observed loadings for components (Blanks are loadings of <.3)					Correlations				
	pc01	pc02	pc03	pc04	pc05	pc01	pc02	pc03	pc04	pc05
Component										
Age				0.60		0.01	0.18	-0.35	0.68	0.02
Gender					0.61	-0.09	-0.41	0.23	0.26	0.64
Education	-0.40					-0.71	0.41	-0.07	-0.11	0.14
Investment				-0.57	0.30	-0.05	0.4	-0.01	-0.66	0.32
Network member	-0.34					-0.62	0.32	0.14	0.12	-0.06
Trade					0.40	0.37	-0.32	0.35	0.25	0.41
Turnover		0.36			0.49	-0.36	0.52	-0.02	0.02	0.6
Years with bank		0.30	-0.36			0.47	0.44	-0.47	0	0.28
business age	0.45	0.30				0.81	0.44	-0.21	0.02	0.03
Business age2	0.42					0.75	0.43	-0.08	0.2	-0.07
Activity involvement		0.3				-0.35	0.44	0.2	0.26	-0.24
Registration				0.32		-0.39	0.41	0.31	0.37	-0.01
Savings source			-0.52			-0.3	-0.41	-0.68	0.08	0.08
Family source			0.55			0.51	0.15	0.71	-0.04	-0.03

Principal component 1 (pc01) and principal component 2 (pc01) significantly affected perception. Pc01 was contributed to mostly by business experience, education, network membership and family as a source of initial capital. This component is positive with increasing business experience and if the source for start-up business was family. The component is positive with a decrease in education, and non-membership of a networking grouping. Since this component is contributed to mostly, by proxy indicators of social capital, its effect indicates social capital as a significant factor in the formation of perceptions by entrepreneurs, confirming the role of social connections for information transfer. Principal component 2 (pc02) is significant and it captures mostly effects of sales revenue. The level of

sales revenue²⁴, which indicates the size of the business, has an effect on the perception of entrepreneurs. This could be explained by the low social interaction between micro and small business, and the bankers as opposed to the medium and larger enterprises. Low education levels and membership of networks increase the probability of having a negative perception. The ordered probit model revealed that gender influenced perception levels but did not do so with the Principal Component Analysis. This could be because its effect is marginal hence its influence is overshadowed in the PCA by a combination of other factors, which influence perceptions more than gender.

Ordered probit coefficients in the model are log-odds units, and hence they cannot be interpreted as regular OLS coefficients (Long and Frees, 2006). The assumption in the model is that ordered categories are different. A hypothesis test that cut off thresholds are the same, $\beta_{1} = \beta_{2} = \beta_{3} = \beta_{4} = 0$ was rejected, $\chi^2(2, 79.86) = p(0.000)$, was rejected at 1% level of significance. Since the thresholds are different, marginal effects were calculated to illustrate the magnitude of associated effect.

7.4.3 Marginal Effects

Marginal effects estimations for ordered probit are presented in Table 7.4. The results indicate that females have a reduced probability of 15% to report that such connections never have an effect and probability increases by 7% to report that it is very likely to have an effect. Having additional investment since start up indicates growth of an enterprise. As enterprises grow, they need external finances for investment, the major source of which is commercial banks for the case country. Businesses that made additional investments since start up have a 12% increased probability to report most likely; 6% reduced probability to report less likely, and both are significant at 10%. A member of a network has a 17% reduced probability to report that social connections can never affect lending decisions by bankers and 15% increased probability to perceive that it is most likely to happen. Being a network member, with higher level education and more business experience increases the probability of reporting that social connections with bankers are most likely to influence access to credit. If the source for start up capital of the business was own savings, which is the case with most businesses in Malawi, there is a 9% reduced probability to report that it is

²⁴ Banks categorise businesses into small, medium and large enterprises using reported estimated revenues.

very likely to access credit when one has social connections with bank officers and the probability increases by 19% to perceive that it never happens, and this result is significant at 10%.

Table 7.4 Ordered Probit Marginal Effects

Variables	1) Most likely	2) Very Likely	3) Likely	4) Maybe	5) Never
Gender	0.16 (0.09)	0.07* (0.04)	0.01 (0.02)	-0.09 (0.05)	-0.15* (0.06)
Education	-0.05* (0.02)	-0.03 (0.02)	-0.01 (0.01)	0.03 (0.02)	0.06* (0.03)
Investment	0.12* (0.05)	0.08 (0.04)	0.05 (0.04)	-0.06* (0.03)	-0.19 (0.10)
Network member	0.15* (0.07)	0.08* (0.04)	0.02 (0.02)	-0.09 (0.04)	-0.17* (0.07)
Savings source	-0.21 (0.11)	-0.09* (0.04)	-0.01 (0.03)	0.11 (0.06)	0.19* (0.08)
Family source	-0.14* (0.06)	-0.12 (0.06)	-0.1 (0.07)	0.04 (0.04)	0.32 (0.19)
N	88	88	88	88	88

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

7.5 Chapter Synthesis

The chapter explored the factors that affect perceptions of businesses on whether having social connections with bank officers are likely to affect their access to credit. The results from both the PCA and the ordered probit models indicated that social capital, education and gender affect perceptions about effect of social connections on credit access from banks; however the perceptions are not all positive. The value of social links in information flows is clearly confirmed; however lenders are not utilising such available opportunities to spread the word on how their various products are aimed at serving the SME sector. Similarly available business groupings are not offering business development services that are valued by businesses. While personal characteristics such as education, which contribute to individual perceptions has largely been considered in empirical research, the findings suggest more use of opinions, values and social connections of borrowers as potential determinants. The suggested factors can also affect level of perceptions in accessing and usage of financial products including credit. Kostov et al. (2012) findings also concluded that perceptions about financial services have an impact on level of usage of the products; however the impact

reduces, or becomes negligible, when more sophisticated products are used with higher levels of access. The low levels of financial inclusion in Malawi can not only be explained by poor infrastructure, low financial education levels, poverty, among others, but can also be explained by low availability of accurate information about banking services which affects perceptions about financial services that users hold.

Social networks and interrelationships can be used to convey positive messages about bank operations. Social networks help transfer of public information circulating in the market (Petersen and Rajan, 1994; 2002). Education is still essential to better communication and understanding. Therefore to increase financial inclusion and hence improve access to formal credit for entrepreneurs, curative strategies should consider borrowers' personal and known experiences to guide formation of information advocacy tools.

Since the major financial service of interest for this thesis is access to formal credit for SMEs, Chapter 8 provides further evidence of the effect of social connections on access to formal credit.

CHAPTER 8 SOCIAL CAPITAL AS A DETERMINANT OF ACCESS TO FORMAL CREDIT BY SMALL AND MEDIUM ENTREPRISES IN MALAWI

Societies and markets use a mix of informal interpersonal connections (social capital), amongst actors, to facilitate economic transactions. Social capital role in development has been given considerable attention in microfinance. Social capital is proven to positively affect access to credit for micro enterprises through group lending methodologies used in Microfinance. Considering the need for formal credit for small and medium enterprises (SME) growth, the question of interest is does social capital also have a positive effect on access to formal credit for small and medium enterprises? To explore most possible variations in modelling this relationship, this chapter uses probit, Heckman selection and multinomial statistical models to provide empirical evidence on whether social capital affects access to formal credit for SMEs in Malawi.

8.1 Interpersonal Connections and Access to Finance

Absence of reliable credit information is one of the major hindrances for formal lending to SMEs. Mechanisms for reliable information, enforcement of property rights and the quality of legal systems are crucially important for enhanced flow of formal credit to SMEs (Beck et al., 2004; Beck et al., 2005). Social capital – an asset embedded in relationships that facilitate action among people and sharing of resources (Coleman, 1988) improves credit information flow between lenders and borrowers through informal interpersonal connections (Uzzi, 1999; Ruziev and Midmore, 2015). Social capital has aspects of both individual (micro) (Bourdieu, 1980; Lin, 2001) and collective (macro) (Coleman, 1990) attributes. It is equivalent to ‘access to resources’ (Lin, 2001) where by an individual can use parts of it when a need for such action arises. Therefore, interpersonal connections, which are a component of social capital, are individual-specific assets that can be put into creative or destructive use, or even be left unused. Because of these dimensions, the use of social capital in access to finance therefore has been, and still is, of research interest. This chapter follows the individual approach to test the null hypothesis that social capital is not a determinant of access to formal finance for SMEs.

In contrast with developed countries, social interactions remain of particular importance in developing and emerging markets because business operating environments are worsened by

corruption, lack of human and material resources, poor management, and inefficient judicial systems (Biggs and Shah, 2006; Conning and Udry, 2007). Furthermore, SMEs, who have a significant effect on economic growth, face big difficulties in accessing formal credit (Berger and Udell, 1998; Galindo and Schiantarelli, 2003). Although such is the case, limited studies on the effects of social capital on credit access have been conducted for sub Saharan Africa, where most of the least developed countries are located. Studies conducted elsewhere have concluded that access to social capital facilitates access to finance (Uzzi, 1999; Barr, 2000; Boot, 2000). However, definitions of what an SME is in the developed economies, where the studies were conducted, are different to that of developing countries. In a review of contemporary literature on relationship banking, Boot (2000) concluded that this facilitation role of social capital happens through creation of value for banks, through informal links. These links reduces transaction costs incurred in writing a contract and retaining clients. Using SME data for United States of America, Uzzi (1999) also concluded that social capital facilitates transfer of private information between lenders and borrowers. The analysis used years with bank, number of business services and personal bank services used by the entrepreneur as proxy indicators for social capital. In a panel data analysis of SMEs in China, Du et al. (2013) measured social capital using entertainment expenditure. They concluded that social capital is important for firms who seek to establish initial social relationships with financiers. Entrepreneurs who spend more on social activities are more likely to obtain a loan from commercial banks (Talavera et al., 2010). Further work conducted in China documented a positive relationship between social capital and firm performance (Zhang and Fung, 2006; Fung et al., 2007). In Vietnam, Nguyen and Ramachandran (2006) concluded that close social relationships that SMEs have with financial institutions enables them to get preferential access to credit as evidenced by more short term debt in their capital structure (see chapter 2 for a further discussion of studies on social capital and finance).

On the contrary microfinance has been the focus of studies of the effect of social capital in the formal credit market in developing countries. This is because that is where such services have mainly been implemented. The basic principle of microfinance is to replace physical collateral with social capital (peer pressure and monitoring) in acquiring a loan. Within the framework of informal and semi-formal credit schemes in microfinance, Serageldin and Groortaert (2000) pointed out that by tapping into the information that group members have about each other, the financial schemes rely on social capital to overcome information deficiencies and the associated risks to prospective lenders. Further studies in microfinance

have also concentrated on the effect of social capital on group lending repayments (Sharma and Zeller, 1997; Bastelaer and Leathers 2006; Cassar et al., 2007) where a positive effect is documented.

In this chapter a contribution to this discussion is made by analysing the relationship between social capital and access to formal credit in the Malawi context. Four proxy variables are utilised in a simple probit, Heckman selection and multinomial models, to estimate the relationship. Conclusions from this analysis complement findings on financial inclusion studies, which have dominated the recent research and policy agenda, although with little on impacts of such policies on SME financing and long term investment (Beck et. al., 2013)

8.2 Data Sources and Methodology

The analysis is conducted using data collected as part of a Business Registration Impact evaluation (BRIE) study in Malawi (see appendix B1 for details). The study was implemented by Poverty for Action in partnership with the World Bank and Government of Malawi. Data was drawn from a sampled control group of 750 randomly selected small and medium enterprises operating in Lilongwe and Blantyre cities. This survey was a second follow-up survey to a baseline for a randomised control trial experiment. The number of returns was reduced to 685 due to missing data for respondents who could not be located for the follow-up survey. A further reduction to 587 in the number of usable responses was inevitable because some respondents were no longer operating the same businesses they had during the first round of the survey. This group of businesses were therefore asked questions on social capital only. Details of the sampling design and technique used can be found in appendix B1.

In empirical studies endogeneity and sample selection are among the major concerns when dealing with non-experimental data. The variable of interest for this Chapter is access to credit, whereby respondents choose to allocate themselves to a group that best describes their circumstance, i.e. accessed credit or not; and the source from which credit is accessed. This scenario entails self-selection²⁵ and sample selection²⁶ biases (Wooldridge, 2003). The biasedness comes in because a subset of the data is excluded, systematically, because of a

²⁵ Distortion in selection of sample i.e. individuals selecting themselves into a group.

²⁶ Sample with self-selection bias.

specific attribute i.e. in this case, not having accessed credit. This exclusion influences the statistical significance of the test or can produce distorted results (Heckman, 1979). However, commonly available techniques to address such issues include estimations using instrumental variables, and the Heckman selection model (Heckman, 1979; Davidson and Mackinnon, 2004). In this case the Heckman selection estimator is employed to test whether social capital is a determinant of access to formal credit. This method is chosen because the alternative, instrumental variable, estimator only produces bounds rather than point estimates when analysing non-parametric models for causal effect (Angrist et al., 1993) as in this case. Simple probit and multinomial models are also estimated which also act as a robustness check for the results.

8.3 Empirical Analysis

The relationship among the chosen variables is modeled using a maximum likelihood probability because it gives the most efficient estimations when dealing with dichotomous dependent variables (Long and Freese, 2006). In such cases using ordinary least squares (OLS) regression would produce biased estimates because consideration will only be on those who have obtained credit. Three probit models, simple probit, Heckman selection and multinomial, are used to estimate the effect of social capital on SMEs probability of accessing credit from formal credit providers. Access to credit, in broad terms, refers to the availability of a reasonable quantity of formal finance at reasonable cost (Claessens, 2006: p.210). This definition covers both existing users and those who excluded themselves, for one reason or the other, including assumed rejection, self-sufficiency of internal funds, and possibly even lack of awareness. Therefore, use of formal credit is not the same as access to credit. A clear distinction of the two terms is explained through reference to a standard assumption in research that small to medium sized firms constantly need credit (Uzzi, 1999). Therefore absence of use of credit for SMEs would indicate that a firm was denied credit or was not offered a sufficiently attractive loan contract, hence making self-restricted consumption indistinguishable to denial of a loan (Lummer and McConnell, 1989; Munnell et al., 1992). It is therefore hard to differentiate whether the business did not access credit due to credit rationing by a bank or due to self-restricted consumption. In this Chapter, an SME is defined as having access to formal credit if it ever obtained a loan from a bank or a microfinance institution, and hence the dependent variable is dichotomous, which is the reason for using probit models.

8.3.1 Probit Model

Probit models are used widely in research on credit access because the dependent variable is usually a binary response variable categorising respondents =1 if they obtained credit and 0 otherwise as in this case. The model takes the following form;

$$Y_i^* = \alpha + X_i' \beta_i + Z_i' \gamma_i + \varepsilon \dots\dots\dots (8.1)$$

Where Y_i^* is the latent variable measuring probability of getting credit, X_i is a vector of exogenous explanatory variables comprising of both continuous and categorical control variables on socio economic attributes of the entrepreneur and the business ; Z_i is a vector of social capital proxy variables; α , β_i and γ_i are the parameters to be estimated and ε is the stochastic error term. The individual observations are represented by $i = 1 \dots\dots\dots N$, the total number of observations. The binary outcome Y_i , =1 if $Y_i^* > 0$, and $Y_i = 0$, and otherwise, where 1 if a firm accessed credit in the past 3 years and 0 otherwise.

8.3.2 Heckman Selection Model

There are a number of sources from which SMEs are able to access credit including both formal and informal sources. The dependent variable in the simple probit model does not take into account the source of a respondent's credit, hence introducing biases if the interest is to estimate the effects of social capital on access to credit from the formal sector. Simple probit models, however, do not take into account selectivity problem. Therefore, in such situations estimates tend to be biased. In order to deal with this problem, Heckman (1976) proposed use of the two-stage selection model. A Heckman two-stage model is a simplified alternative to the simple probit maximum likelihood approach (Gujarat, 2003). This model is used when one dependent variable depends on another dependent variable. For example, most small and medium businesses operating in Malawi do not have business accounts, but some might have personal savings account which they also use for their businesses. In formal credit, prospective clients are encouraged to open an account with the lender when they access credit, hence one cannot have credit from an institution without having an account with the lender. Therefore, the selection dependent variable takes the value of 1 if SME has a bank account and 0 otherwise. Therefore, to estimate the Heckman model, the first stage probit

regression estimates the probability of a firm operating a bank account. The second stage, which is also a probit regression, uses the estimated probability of having a bank account, from the first regression. This allows accounting for selection bias in the second regression, whose dependent variable has a value of 1 if SME accessed credit and 0 otherwise.

To estimate the effect taking into account the selectivity problem, a Heckman selection model is estimated. This model is based on estimating two latent dependent variables as follows:

$$Y_i^* = X' \beta + \varepsilon_1 \text{ (Outcome model)} \dots\dots\dots (8.2)$$

$$Q_i^* = W' \alpha + \varepsilon_2 \text{ (Selection model)} \dots\dots\dots (8.3)$$

Where X and W are vectors of regressors and ε_1 and ε_2 are random error disturbances. The errors are correlated if the Heckman selection model is the correct estimator for the selection problem. Regressors for the selection equation are chosen randomly, however the rule of thumb is that at least one regressor in the selection model should not be in the outcome model (Baum, 2006). Estimation of this bivariate probit model requires identification of an instrumental variable which only affects the probability of having a bank account but does not belong to the main model of credit access. The two possible variables identified are revenue and trust in the banking system. Enterprises who do not trust banks to act in the best interest of their enterprises select themselves out from operating a bank account. The data used for this analysis was collected from SMEs located in Lilongwe and Blantyre cities, where banks are within reach, rendering not operating an account as a self-selected choice. Enterprises who have trust indicate confidence in the banking system. However, trusting the bank system does not guarantee access to credit, but merely a step towards being able to apply for credit. The pecking order theory suggests that firms order their financing choices in a hierarchical pecking order, starting with internal funds before seeking external funds through debt. Increasing revenue is an indicator of growth, and as the firm grows the need for funds for investment become greater and hence requires external funds to fulfill the need. As revenue increases firms will need more formal external finance. Operating a bank account indicates an attempt to get external credit because most businesses need to have an account to aid in getting formal credit.

8.3.3 Multinomial Model

The multinomial model is also estimated using the same list of dependent variables used in the simple probit and Heckman selection models. Apart from checking sensitivity of the results to changes in the models, it also ensures robustness of the results. The Heckman sample selection model only considers respondents that obtained credit from a bank, an MFI or informally. The model does not take into account those that did not access credit from anywhere, for their business, up to the point the survey was carried out. Businesses require external finances to grow. Therefore not having obtained credit in the past does not indicate that the business will never have it in the future. This creates yet another bias which is corrected by estimating factors affecting probability of the entrepreneur's choice using the multinomial probit model. The credit seeking behaviour is captured as a multiple choice problem which has three possible answers; formal, informal and no credit. The model takes the same form as in equation 8.1 but the dependent variable, Y_i^* has three values which include no credit, formal credit and informal credit. The assumption that errors are extreme values closely approximates the normal distribution, and hence produces closed form solutions (Greene, 2003). Individuals who accessed both formal and informal credit are excluded from the analysis because they cannot be placed in two categories.

8.3.4 Independent Variables

The names of the variables used in this chapter are the same variable names as noted in Chapters 6 and 7, for ease of comparing results. Social capital is multidimensional hence difficult to measure using a single indicator. The independent variable of interest, social capital, is proxied by trust (*trust*²⁷) and network membership (*network member*). However, to capture a wider angle of social connections informal gifts (*gift* and *invest*), and involvement in activities with financiers (*activity involvement*) were also included as proxies in the analysis. Misztal (1996: p.10) observed that 'trust, by keeping our mind open to all evidence, secures communication and dialogue', hence implied that trust may open up access to people and the exchange of intellectual capital (Brata, 2009). High levels of trust enable firms and banks to negotiate loan agreements (Uzzi, 2009). The question asked to capture these attributes, which is the same question, noted in Chapter 6, is 'Do you trust banks to act in the

²⁷ A description of all key variables is presented in Table 8.1

best interest of your enterprise? To capture network membership the following question was asked; ‘*Are you or your business a member of a social networking gathering, group, or club, which helps you find business opportunities?*’. Chapter 6 showed that lenders and SME borrowers hold conflicting views about factors that hinder access to finance, and hence rent seeking behaviours tend to surface in such scenarios. Offering informal gifts (*gift*) was therefore used as an additional social capital proxy. To capture this variable the following Likert statements were evaluated: *Business people offer gifts (including cash, merchandise or other goods) to influence the outcome of a loan application, and Business people offer investment opportunities as an incentive to the bank or lending officer to influence the outcome of a loan application.* Another dichotomous variable of whether the SME owner or manager is involved in activities that enable them to interact with banking officials was also included as a proxy. All of these social capital proxies are expected to have a positive sign.

From a lenders’ point of view, formal credit is granted depending on the creditworthiness of the firm; hence judging the associated risk and business reputation play a crucial role. Unfortunately these attributes are not directly measured in the data set, and therefore they are proxied by firm size, age, gender, location, education, business sector, marital status and revenue, which form the control variables. As noted earlier in Chapter 7, in a relationship, time permits network partners to learn about and share private information, form bonds of trust and exploit opportunities (Uzzi, 1999; Uzzi and Lancaster, 2003). This is also in the way education affects social capital, and hence educated entrepreneurs are likely to be more networked than the less educated (Buerkle and Guseva, 2002). Higher level education is expected to have a positive effect and vice versa for lower level, because staying longer in school is associated with lower investment costs in social capital.

Age of the enterprises has an effect on access to resources. Younger firms find it harder to access formal finance due to information asymmetries (Le and Nguyen, 2009; Coluzzi et al., 2009). As the business grows and performs, it builds up a reputation and history which reduces the moral hazard dilemma and creates a path to access debt finance (Burger and Udell, 1995; Kira and He, 2012). A lender would look at longer-established enterprises as having better reputations, credit histories, and possibly longer-term relationships with formal credit institutions (Cavaluzzo and Cavaluzzo, 1998: p.779). In a developing country context, Abor and Biekpe (2007) found a positive relationship between age and access to bank finance in Ghana, while Klapper et al., (2006), and Hall et al., (2000) demonstrated a negative

relationship for developed countries. To account for non-linearity in the relationship between age and access to credit, a squared age variable is included. The expectation is that there would be a positive sign for age and a negative sign for age squared variables.

Firm size impacts on access to finance from commercial banks because small enterprises are favoured less than large firms (Fatoki and Asah, 2011). This results in small firms' low usage of external finance, especially from banks (Beck et al., 2008a). Large firms are usually more diversified in their operations and have more stable revenues hence present less risky ventures compared with small firms. Young and small firms face significant financial constraints (Colluzi et al., 2009), therefore size can be substituted for insolvency (Honohan, 2009).

Geographical proximity of lenders to their clients could have an effect on access to finance. Lenders are capable of utilizing soft available information, of clients around them, to establish credibility of their customers for credit quality (Narayan and Pritchett, 1999). This transfer of information is in most cases done through informal linkages. Geographical closeness between lenders and borrowers is associated with a firm's access to credit (Berger and Udell, 2002). A specific positive relationship between location and access to resources, including capital, labor and land, exists (Gilbert, 2008; Fatoki and Asah, 2011). Regardless of research evidence, this relationship already makes sense for most developing countries. This is because financial service providers are concentrated in urban areas, due to poor infrastructure, and hence access to these services is limited for the potential clients who are located far away from urban areas. Location is expected to have a positive sign because the sample was collected in urban areas.

The industry in which a business is operating can influence access to finance although the major determinant is through composition and nature of assets possessed by the firm (Hall et al, 2000). However, this effect depends also on other economic factors. In Ghana, Abor and Biekep (2007) noted that SMEs operating in the agricultural sector have the strongest capital structures compared with the wholesale and retail industry, which also has a weak debt ratio. Michaelas (1999) argued that although particular firm's features are sensitive to structural features of the industry, financial strategy variables have an important influence over industry-specific effects on firms operations. Countries sometimes intentionally direct credit

to specific sectors, and in such cases, the type of industry would have an effect on access to external credit for businesses. A positive effect is expected.

Men and women may differ in terms of how they make and maintain social ties in a society, largely due to cultural factors. These differences affect economic aspects of interactions; hence gender is mostly controlled for in social capital studies (Lindstrom et al., 2002; Subramanian et al., 2002). In sub Saharan Africa, key drivers of a gender gap are firm characteristics, especially size of business (Aterido et al., 2013). Muravyev et al. (2009) found that female-managed companies are less likely to get formal credit compared with their male counterparts. The expected sign is therefore negative.

8.4 Analytical Results

8.4.1 Descriptive Analysis

This analysis uses a sample of 684²⁸ small and medium enterprises located in Lilongwe and Blantyre cities of Malawi. The number of female respondents was deliberately increased in the sample to ensure that estimation of gender differences was captured. The distribution of the data by location and gender is presented in Figure 8.1. There were 36.8 % of female entrepreneurs in the sample, with 47% located in Blantyre and 53% located in Lilongwe.

²⁸ The sample is reduced from the original 750 respondents due to SMEs that could not be located during the second round of interviews or had stopped operating the businesses they were operating a year before the interview.

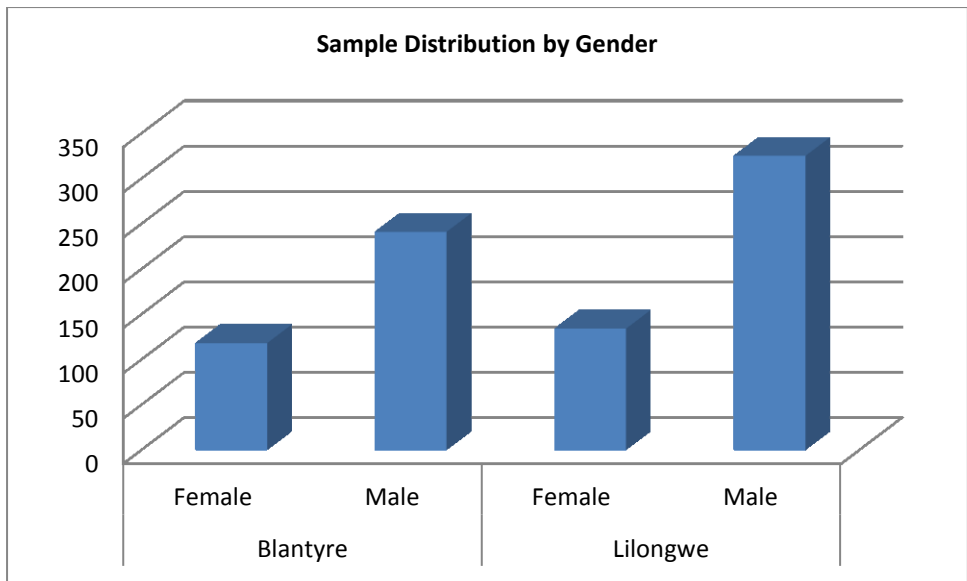


Figure 8.1 Sample Distribution by Location and Gender

Up to 80% of businesses in Malawi operate on a micro scale compared to the small and medium enterprises (Finscope, 2012). To compare representativeness of the sample to the wider population characteristics, Figure 8.3 displays the sample distribution by size²⁹ of business and business activity (Figure 8.2). Although categorising size of business using number of workers indicates that 80% of the businesses are micro, the average annual revenue is over MK1, 000,000 which falls within the small sized category if revenue is used. Therefore, throughout the analysis the sample will be referred to as containing SMEs.

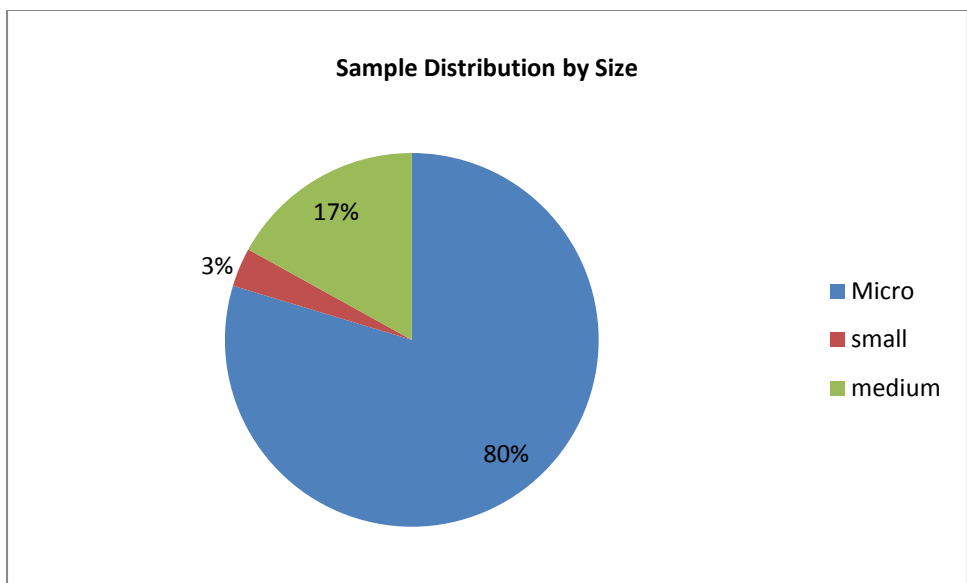


Figure 8.2 Sample Distribution by Size

²⁹ Total number of workers employed by the business was used to categorise businesses by size, and hence defined as micro, small and medium enterprises.

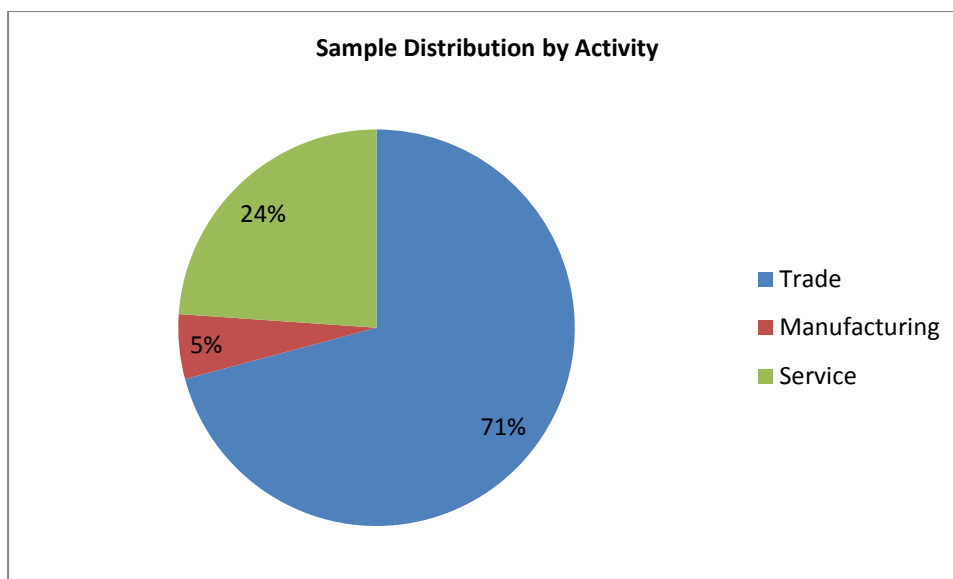


Figure 8.3 Sample Distribution by Activity

Although small businesses already face greater hindrances to accessing finance needed for growth (Beck et al., 2006; 2008a), failure to separate business and personal finances complicates the ability of small businesses to operate effectively. The problem of mixing business and personal finances is worsened due to a lack of business accounts held by small entrepreneurs. A baseline study for the BRIE project in Malawi established that 82% of the targeted enterprises reported that they take money from the business to finance household expenses anytime that it is required. This study further established that 63% of the businesses had access to a personal savings account with a bank, compared with only 4% who had business accounts. This implies that personal and businesses finances are not handled separately by SMEs. Analysis of variance (ANOVA) indicated no significant differences in having an account at the bank, $F(2, 0.84) p > .05$ among the micro, small and medium enterprises. This result could be because the account considered was any bank account, and or because of biasedness towards micro enterprises compared to small and medium sized enterprises in the sample. The decision, by businesses, to have a bank account can be affected by a number of factors, one of which is perception.

Perception affects a user's decision to access and use general accounts and services offered by formal financial institutions (Kostov et al., 2012). To explore perceptions about social capital, the sampled enterprises were asked to indicate their level of perception regarding use of social connections when accessing credit from banks. The respondents were asked the following question; *'How likely is it for you to obtain a loan from a bank or lending*

institution if you personally know the bank or lending officer?’ The possible answer had five choices, from which they chose one; very likely, likely, undecided, unlikely and very unlikely. The majority (59%) indicated likely or very likely followed by unlikely or very unlikely (31%). Only 10% were undecided of the effect. A similar trend was observed regardless of whether one got a loan from a bank (See Figure 8.4) or a microfinance institution (MFI) (Figure 8.5). Businesses which borrowed from bank (26%) and MFI (27%) indicated that it is very likely to get a loan if one has social links with bank personnel. To get more insights about their choices respondents were asked to indicate the reasons for their choices which are presented in Figure 8.6.

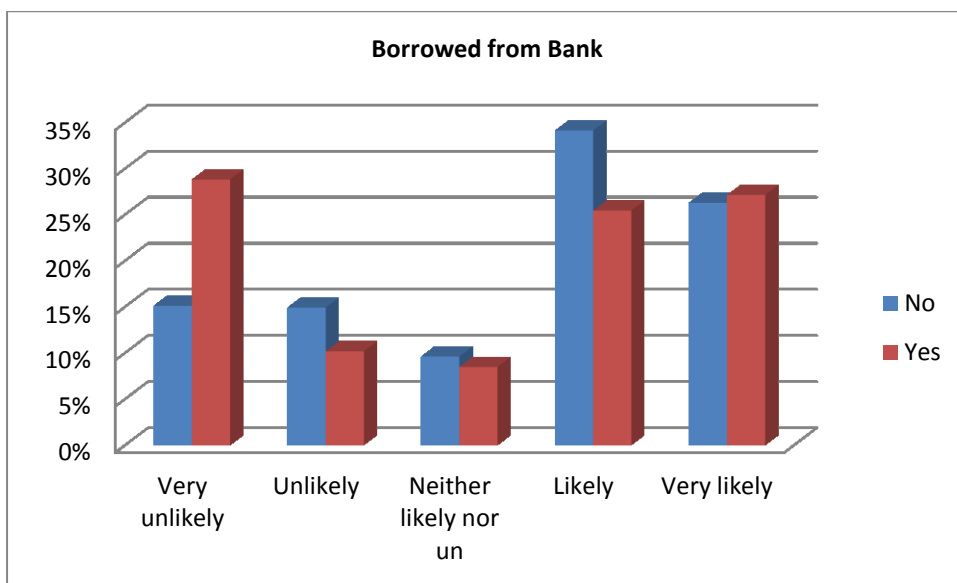


Figure 8.4 Social Connections Perception among Bank Borrowers

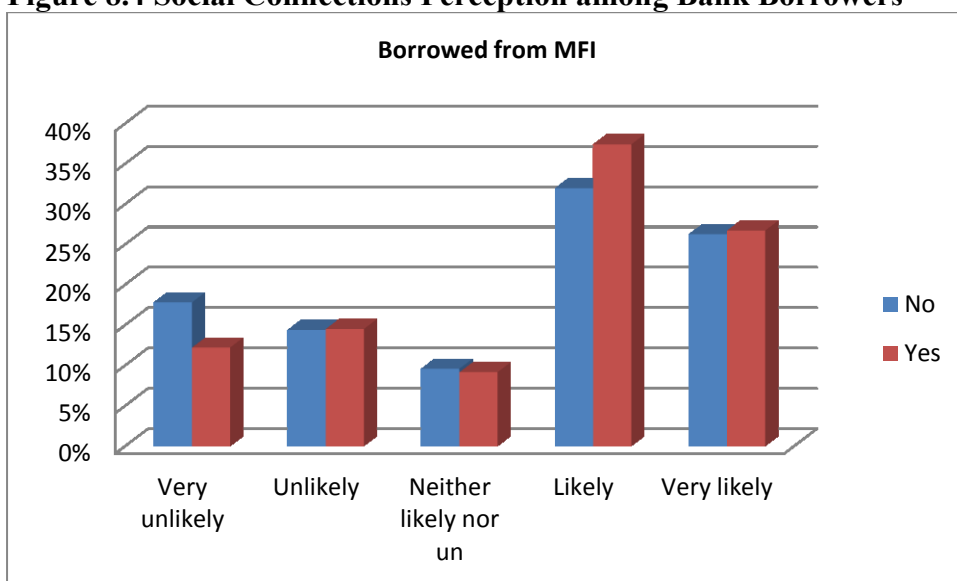
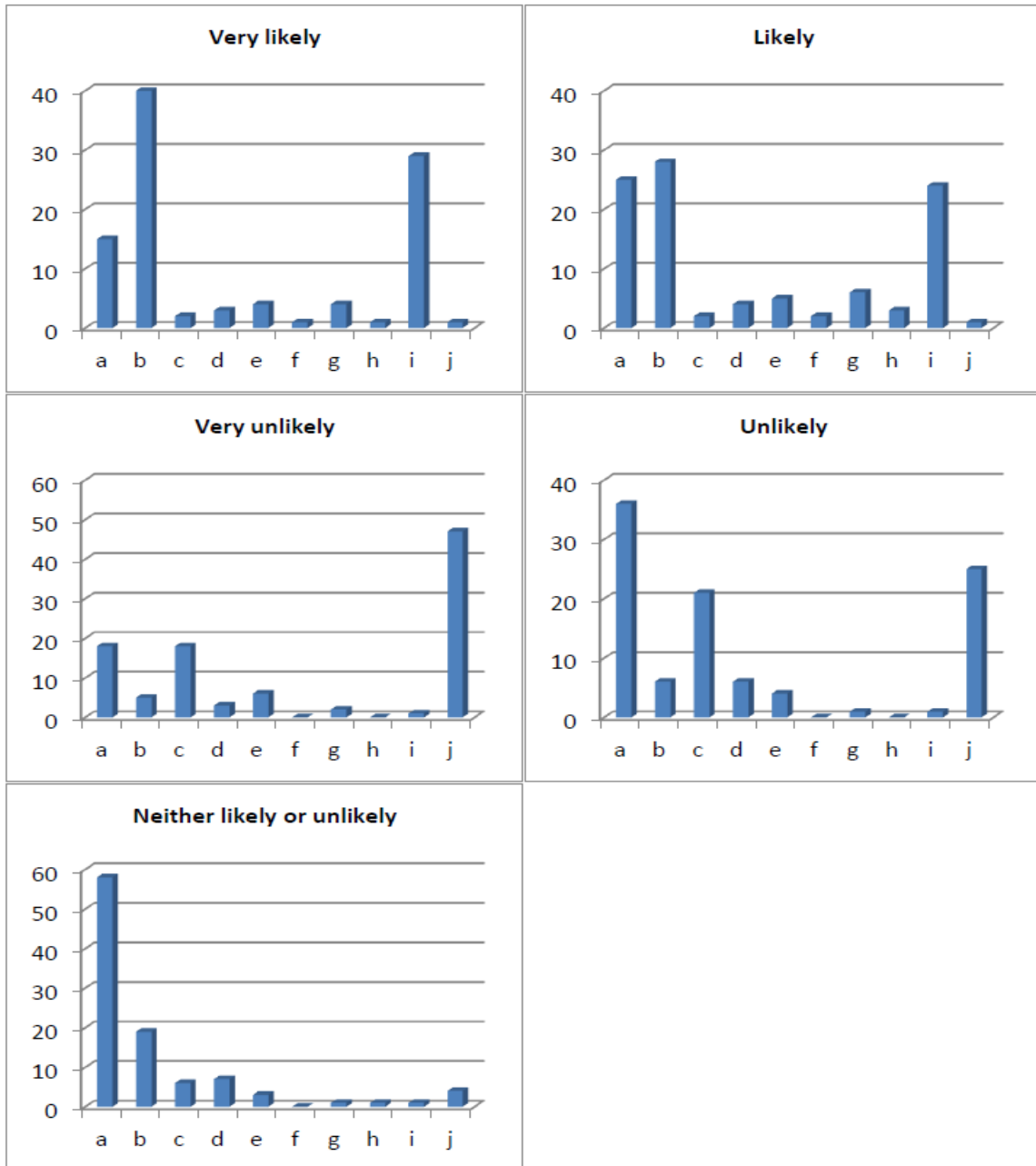


Figure 8.5 Social Connections Perception among MFI Borrowers



Note:

- a = Banks and lending institutions follow individual lending policies
- b = They can track you if you default on their loans
- c = Bank or lending officer does not have power to make final loan decision
- d = Bank or lending officers have power to make final loan decision
- e = It is unprofessional but that is how loans are done
- f = It is easier to offer a gift whether monetary or otherwise
- g = It depends on how powerful you are or who you know
- h = I have obtained or I know people who have obtained that way
- i = Bank or lending officer knows my business
- j = Personal friendships do not affect business transactions

Figure 8.6 Reasons for Perception Categories

The reasons cited by those holding a positive perception towards social connections playing a role in accessing credit were mainly that they can easily be tracked if loan defaults (25% for likely, 39% for very likely); and that the loan officers have more knowledge about the business (23% for likely, 28% for very likely). This corresponds to observations that social capital enhances flow of information among actors (Lin, 2001; Uzzi, 1999). Interestingly, the reason least cited by the group holding positive perceptions (1%), is ‘friendship has no effect in business’ while this is the second most cited reason for those who hold a negative perception (45% for very unlikely, 24% for unlikely). This implies that both camps agree that mere friendship has no effect on the transaction between a lender and a borrower, but a flow of information is occurring due to the social connection. Both groups also stated that banks and lending institutions follow their individual lending policies as a reason for holding either a positive or negative perception. This indicates knowledge that banks have to follow their own policies and procedures in lending, regardless of any other secondary issues affecting lending. While this preliminary analysis contributes some insights into opinions on how social capital affects access to credit, an empirical model can provide further evidence on the need to consider social capital as a determinant of access to credit for small and medium enterprises. Table 8.1 describes a list of all variables used in the empirical analysis. Table 8.2 shows the same variables, grouped by access to a bank account.

With reference to Table 8.1, on average the majority of SME heads had gone up to primary (46%) and secondary (47%) with only 6% having done some post-secondary or vocational education. The average age of SME heads in the sample is 37 years, with a range of 18 – 89 years implying that the SMEs are mostly controlled by middle-aged individuals. The average age of businesses, interpreted as experience, is 11 years, with a standard deviation of 8 years, and a range of 3 – 51 years. This indicates that most of the SMEs are relatively young. Females constitute 37% of the sample. Although 63% of the SMEs indicated that they had access to a bank account, only 42% have obtained a loan, of which 31% obtained it from a formal³⁰ institution.

Table 8.2 indicates results for a two tailed test on sub sample means of SMEs with a bank account and those without a bank account. Conditional upon obtaining credit, out of 331 SMEs who had a bank account, a higher number of SMEs had access to credit (43%),

³⁰ Included commercial banks and microfinance institutions (MFI)

regardless of the source, compared with 40%, out of 197 SMEs who did not have an account, and there is no significant difference between the two. However, using a two tailed test at 1%, there is a statistically significant difference between SMEs who accessed credit from a formal institution (37%) and those who did not (22%). This observation implies that having a bank account is required for those who have loans from formal institution because it makes it easier for the lender to track repayments. On average, a larger proportion of SMEs with a bank account (89%) have trust in the banking system compared with 79% of those without a bank account. Having the trust in banking system enhances use of the products offered especially savings and credit products, because trust is one of the fundamental issues in banking. If the public does not have trust in the banks they will be discouraged from saving their money with bank, and hence the intermediation role of banks would collapse. Implications of problems of discouragement to accessing financial services are more important than the credit rationing problem (Levenson and Willard, 2000), and hence deserves due attention.

The observed high levels of trust in the sample imply that the low usage of bank accounts is caused by factors other than trust. Studies in developing countries have suggested that lack of enough income to open and maintain bank accounts, physical location of banks and not meeting requirements are among the reasons for low uptake of formal financial services in developing countries (Beck et al., 2007; 2008a).

Table 8.1 Description and Summary Statistics of Main Variables

Variable	Description	N	Mean	Std. Dev.	Min	Max
creditaccess	1 if SME borrowed , 0 otherwise	528	0.42	0.49	0	1
creditformal	1 if SME borrowed from formal sources, 0 otherwise	528	0.31	0.46	0	1
Bank account	1 if SME owner has a bank account, 0 otherwise	528	0.63	0.48	0	1
Gender	1 if SME head is female, 0 otherwise	684	0.63	0.48	0	1
Married	1 if SME head married, 0 otherwise	684	0.85	0.36	0	1
Age	Age of SME head in 2014	528	37.05	9.86	18	89
Age2	Age squared divided by 100	528	14.70	8.85	3.24	79.21
Business age	Age of SME in 2014, since start up	526	11.22	7.57	3	51
Business age2	Age of SME squared divided by 100	526	1.83	2.67	0.09	26.01
Revenue	natural log of monthly average revenue for last six months	524	12.01	1.17	9.21	16.30
Primary	SME head education 1 if up to primary school, 0 otherwise	528	0.46	0.50	0	1
Secondary	SME head education 1 if up to secondary school, 0 otherwise	528	0.45	0.50	0	1
Postsecondary	SME head education 1 if up to post-secondary or vocational, 0 otherwise	528	0.05	0.22	0	1
City	1 if SME operates in Lilongwe, 0 if Blantyre	684	0.48	0.50	0	1
Trade	1 if SME operates in trade sector, 0 otherwise	528	0.70	0.46	0	1
Manufacturing	1 if SME operates in manufacturing sector, 0 otherwise	528	0.04	0.20	0	1
Micro	1 if SME is micro, 0 otherwise	528	0.96	0.20	0	1
Invest	1 if SME agrees that businesses offer investment opportunity to lenders, 0 otherwise	684	0.51	0.50	0	1
Gift	1 if SME agrees that businesses give informal gifts to lenders, 0 otherwise	684	0.51	0.50	0	1
Trust	1 if SME trusts banks, 0 otherwise	684	0.86	0.35	0	1
Network member	1 if SME is member to a network, 0 otherwise	684	0.10	0.30	0	1
Activity involvement	1 if SME involved in activities to interact with lenders, 0 otherwise	684	0.17	0.37	0	1

Table 8.2 Main Variables Statistics by Bank Account

SMEs without a bank account				SMEs with a bank account			
Variable	N	Mean	Std. dev.	N	Mean	Std. dev	Mean difference ⁺
Creditaccess	197	0.40	0.49	331	0.43	0.50	-0.56
Creditformal	197	0.22	0.41	331	0.37	0.48	-3.79***
Gender	197	0.74	0.44	331	0.63	0.48	2.74***
Married	197	0.84	0.37	331	0.85	0.35	-0.53
Age	197	37.55	11.14	331	36.76	9.01	0.84
Age2	197	15.34	10.06	331	14.32	8.03	1.21
Business age	197	12.65	8.40	329	10.36	6.89	3.24***
Business age2	197	2.30	2.99	329	1.55	2.42	3.01***
Revenue	195	11.83	1.17	329	12.12	1.17	-2.69***
Primary	197	0.60	0.49	331	0.38	0.49	5.15***
Secondary	197	0.31	0.47	331	0.53	0.50	-4.90***
Postsecondary	197	0.03	0.17	331	0.06	0.24	-1.81*
City	197	0.43	0.50	331	0.51	0.50	-1.94*
Trade	197	0.73	0.45	331	0.69	0.46	0.98
Micro	197	0.95	0.21	331	0.96	0.20	-0.18
Invest	197	0.55	0.50	331	0.46	0.50	2.16**
Gift	197	0.56	0.50	331	0.47	0.50	2.08**
Trust	197	0.79	0.41	331	0.89	0.32	-2.88***
Network member	197	0.09	0.29	331	0.11	0.31	-0.65
Activity involvement	197	0.15	0.36	331	0.19	0.39	-1.05

Note: + is t statistic value for a two tailed t test

8.4.2 Model Estimations

Although 63% of the sample had a bank account, only 10% and 17% respectively indicated that they were members of a network or were involved in activities that make them interact with formal lenders, respectively. Fifty eight percent of the sample however agreed that social connections have an effect on access to credit from formal lenders. To empirically test the hypothesis that social connections have an effect on access to credit, the three models are estimated which include a simple probit, Heckman selection and multinomial. Simple probit model estimation results are presented in Table 8.3. Model 1 uses all the available observations and the results indicate that most of the estimated coefficients have the expected signs. *Trade* and *business age* has positive signs and are statistically significant at 1%. *Business age2* has a negative sign indicating that the more experienced a business is, the less likely it would get credit. This could be because, regardless of how long a micro business has been in operation, if it does not grow, the likelihood that it is not a viable enterprise is high hence can be denied to access credit. This could also be because, as time passes, a business establishes ties with other stakeholders and hence the need for credit diminishes if the business can be assisted by them. Gender has a negative sign and is significant at 1%. This corresponds to Muravyev et al.'s (2009), conclusion that compared to male-managed, female-managed firms are less likely to obtain a bank loan. Education has negative sign for all three variables and *postsecondary* is significant at 10%. Social capital variables; *network member*, *gift*, *invest*, *trust* and *activity involvement* all have a positive sign. The variables *gift* and *invest* estimate evidence of previous experiences, while *trust* portrays confidence the businesses have to engage with the bank. The lack of statistical significance of these could be because they do not give a direct measure of social capital, but rather indicate the possibility of the effect.

Table 8.3 Credit Access Probit Coefficients

Variables	(1) Credit access	(2) Credit access Bank Account sub sample	(3) Credit access Trust sub sample
Gender	-0.35*** (0.13)	-0.29* (0.17)	-0.42*** (0.15)
Age	-0.02 (0.03)	-0.09* (0.04)	-0.08** (0.04)
Age2	0.02 (0.03)	0.10* (0.05)	0.09** (0.04)
Business age	0.06*** (0.02)	0.08*** (0.03)	0.07** (0.03)
Postsecondary	-0.87** (0.43)	-1.41** (0.61)	-1.15** (0.52)
City	-0.09 (0.12)	-0.36** (0.16)	-0.15 (0.13)
Trade	0.33** (0.13)	0.10 (0.17)	0.27* (0.15)
Trust	0.18 (0.16)	0.44* (0.24)	0.00 (0.00)
Network member	0.57*** (0.20)	0.79*** (0.25)	0.54** (0.21)
Activity involvement	0.22 (0.15)	0.34* (0.20)	0.30* (0.17)
Model evaluation			
Number of observations	522	327	442
Log-likelihood value	-323.65	-194.59	-270.77
Likelihood ratio test, χ^2 (d.f.)	63.41(18)***	57.83(18)***	61.30(17)***
Pseudo R squared	.09	.13	.10
Hosmer and Lemershow Goodness of fit test, χ^2 (d.f.)	2.96(8)	13.60(8)*	9.00(8)
Link test, χ^2 (d.f.)	63.96(2)	59.63(2)	63.52(2)
Correctly predicted	66.48%	69.42%	64.93%

Notes: Coefficient standard errors are reported in brackets. * refers to significance at 10%; ** at 5% and *** at 1%. Model 1 dependent variable takes value 1 if SME accessed credit, 0 otherwise; model 2 and 3 used same dependent variables as in 1, but regressed on a subsample conditional upon having a bank account, and conditional upon trusting banks respectively.

The Hosmer and Lemershow goodness of fit, likelihood ratio and link tests all indicate that the estimated models adequately fit the sample data (See Table 8.3). Having a bank account indicates an expression of interest to use savings and credit products offered by the lending institutions. This self-selection behaviour could have an effect on access to credit. Therefore following Blanchard et al. (2008) and Muravyev et al. (2009), alternative models are estimated using sub samples conditioned on having a bank account and having trust in the banking system. The results are presented in models 2 and 3 in Table 8.3.

All signs in the alternative models remain the same as in the full model 1, except for *invest* variable. SMEs with bank accounts may be more optimistic about accessing formal credit compared with those who do not have an account because they are clients of a lending institution. SMEs that are better networked are more likely to easily access resources hence contributing to an overestimation of the importance of social connections. Therefore as expected, the coefficients for social capital variables *network member* and *activity involvement* are slightly higher than the coefficients in the full sample model 1. Both variables are however statistically significant at 1%. Interestingly, *trust* is significant at 10%, in accessing credit but only conditional upon having an account. This suggests that public trust in banking institutions contributes to the use of bank accounts.

Heckman selection

To assess the possibility of a selection bias in the estimation, Heckman selection models are estimated. To ensure robustness of the results three models are estimated. Model 4 is estimated using a full sample while model 5 is condition upon holding a perception that it is likely that social connections have an effect on access to formal credit; model 6 is conditioned on acknowledging that it is easier to borrow from other sources than from a bank. The estimated parameters for all the three models are reported in Table 8.4

Table 8.4 Credit Access Heckman Selection Coefficients

Variable	(4) Outcome model :Credit access		(5) Outcome model :Credit access, likely sub sample		(6) Outcome model: Credit access, borrow easily sub sample	
	Selection model: Having bank account		Selection model: Having bank account		Selection model: Having bank account	
Gender	-0.05 (0.18)	-0.41*** (0.14)	0.18 (0.18)	-0.54*** (0.18)	0.08 (0.30)	-1.04*** (0.31)
Married	-0.37* (0.20)	0.19 (0.17)	-0.74*** (0.28)	0.39* (0.23)	-1.32*** (0.49)	0.23 (0.34)
Age	-0.09** (0.04)	0.06* (0.03)	-0.07 (0.08)	0.13** (0.06)	-0.11 (0.11)	0.14 (0.09)
Age2	0.10** (0.04)	-0.06 (0.04)	0.07 (0.10)	-0.16** (0.08)	0.09 (0.13)	-0.17* (0.10)
Business age	0.07** (0.03)	-0.01 (0.02)	0.06 (0.04)	0.02 (0.04)	0.05 (0.06)	-0.02 (0.04)
Postsecondary	-1.27** (0.52)	0.42 (0.40)	-1.21* (0.63)	0.28 (0.56)	-1.63 (1.00)	-0.47 (0.81)
City	-0.36*** (0.13)	0.15 (0.12)	-0.24 (0.16)	0.04 (0.15)	-0.32 (0.26)	-0.06 (0.23)
Trade	0.10 (0.15)	-0.09 (0.14)	0.14 (0.17)	-0.13 (0.17)	0.61** (0.28)	-0.50* (0.28)
Network member	0.60** (0.25)	0.05 (0.20)	0.71*** (0.26)	0.02 (0.22)	0.58* (0.34)	0.13 (0.34)
Revenue		0.16 (0.05)***		0.21 (0.06)***		0.36 (0.10)***
Trust		0.43 (0.15)***		0.80 (0.20)***		0.45 (0.29)
_cons	1.83 (0.98)*	-2.98 (1.03)***	1.73 (1.64)	-5.16 (1.66)***	3.24 (2.48)	-5.78 (2.26)**
Model Evaluation						
Likelihood ratio test of independence of equations (ρ=0), χ ² (d.f.)		3.43(1)*		7.76 (1)**		2.80 (1)*

Variable	(4)	(5)	(6)
	Outcome model :Credit access Selection model: Having bank account	Outcome model :Credit access, likely sub sample Selection model: Having bank account	Outcome model: Credit access, borrow easily sub sample Selection model: Having bank account
Log-likelihood value	-504.27	-295.11	-138.92
Likelihood ratio test χ^2 (d.f.)	54.67(16)***	38.31(16)***	39.60(16)***
Number of observations	522	316	165

Notes: Coefficient standard errors are reported in brackets. * refers to significance at 10%; ** at 5% and *** at 1%. Model 4 uses the whole sample; Model 5 uses a sub sample conditioned on acknowledging that it is likely that social connections affect access to credit; Model 6 uses a sub sample condition on indicating that it is easier to borrow from other sources than a bank.

The bivariate versions of the simple probit models 1, 2 and 3 are estimated using a Heckman selection approach. The model estimates credit access and having a bank account jointly while assuming the joint normality of their error terms and non-zero correlation (ρ) (Cavaluzzo et al., 2002). If the correlation coefficient is zero ($\rho=0$), results from the univariate model would be considered unbiased and consistent (Woodridge, 2002). All the three models (Table 8.4) have a significant correlation coefficient at 10%. However, similar to Ruziev and Midmore (2015); Muravyev et al. (2009) and Cavaluzzo et al. (2002), the results from the bivariate model do not fundamentally differ from the univariate model. Such similarities of estimates do not however suggest absence of a selection problem because this may also be caused by other statistical factors (Woodridge, 2006: p.609).

Notably, in the results from a simple probit model in Table 8.3, the education variable has a negative sign and it is significant. The Heckman selection model results (Table 8.4) also found a negative sign for the education variable in the outcome model, but a positive sign in the selection model. This is probably because the sample population was drawn from businesses that were not registered (informal) yet (See appendix B1). Most of these informal businesses are managed by business owners with low education levels. Over 80% had just gone up to secondary school level. Education was significant but only for post-secondary level just as it was found in Chapter 7 (Table 7.2), where post-secondary school education was significantly affecting access. The sample population, in chapter 7 had an average education of a post-secondary school. In addition, In Malawi, commercial banks rarely extend business loans to unregistered businesses.

Gender, *Revenue* and *trust* significantly affect having a bank account but not access to credit. This could be because these obstacles are interrelated; therefore if the interactions are not picked the effect on the main variables could be biased. This conforms to observations made by Ayyagari et al. (2006) that if inter-related obstacles in finance affecting firm growth are not chosen, access to finance seems to always be the most important constraint to firm growth. In agreement with Uzzi and Lancaster (2003), and Ruziev and Midmore (2015), social capital proxied by *network member* significantly affects access to credit in both the univariate and bivariate models. These results further suggest that entrepreneurs are more willing to have a bank account with a formal institution if they have trust in the banking system. The higher the revenue the more likely the business would be to have a bank account

because, as the business grows, the higher the need for external financing from formal institutions. Being married has a negative and significant influence on access to credit. This could be explained because, culturally, women have limited control over resources and limited decision making power in the households including over family business resources (Wanyeki, 2003).

Marginal effects of the probit and Heckman models were computed to understand the magnitude of the effect of the independent variables on access to credit. Table 8.5 presents the results.

Table 8.5 Marginal Effects for Probit and Heckman Models

Probit model		Heckman model	
Variable	Effect	Variable	Effect
Gender	-0.14*** (0.05)	Married	-0.13** (0.07)
Business age	0.02*** (0.01)	Business age	0.03*** (0.01)
Education	-0.28*** (0.10)	Education	-0.46*** (0.14)
Trade	0.13** (0.05)	City	-0.13*** (0.05)
Network member	0.22*** (0.07)	Network member	0.20*** (0.08)
		Age	-0.04*** (0.01)
		Age2	0.04** (0.02)

*** refers to significance at 1%; ** at 5%, and * at 10%

The marginal effect is a partial derivative of y with respect to x_k . Marginal effects are an informative means for summarising how a change in a response variable is related to a change in an explanatory variable in a model. Table 8.5 indicates the marginal effects results for the simple probit and Heckman probit models. In both probit and Heckman selection models, low education levels reduce the probability of accessing formal credit by 28 % and 46% respectively. Probability of accessing formal credit increases by 20%, if one is a member of a business networking grouping. The probability increases by 2% and 3% with a unit increase in number of years the business is operating. In the Heckman model, younger entrepreneurs have a reduced probability of obtaining credit by 4%.

Multinomial Logit

Using the whole sample, a multinomial logit model was estimated to assess the determinants of access to different sources of credit. The diagnostic checks for the model revealed a good fit (see Table 8.6). The independence of irrelevant attributes (IIA) tests produced conflicting results hence they were disregarded. Long and Freese (2006: p.243) indicated that IIA tests sometimes show conflicting results hence not very useful for assessing violation of IIA assumptions. The Wald test to combine alternative choices was rejected at 1% level of significance. The odds of obtaining formal credit compared to no credit and the odds of obtaining informal credit as opposed to no credit are therefore obtained. The estimated odds are reported in Table 8.6.

Results obtained are similar to results obtained using simple probit model. Holding all other factors constant, the odds of obtaining formal credit relative to no credit for female entrepreneur's decreases by 0.88 units. On the contrary, the odds of getting informal credit increases, relative to no credit, for females. This could be because businesses need external finances to grow and therefore, because female businesses face greater hindrances to obtain formal credit than males, the next feasible option is informal finance. A one unit increase in the number of years the business has been operating increases the odds of accessing both formal credit and informal credit, relative to no credit. The odds of getting formal and informal credit decrease for entrepreneurs with some education, but the effect is not significant. The odds of getting credit from both formal and informal credit increases for entrepreneurs with social connections although *gift*, *invest*, *trust* and *activity involvement* are not significant. The odds of accessing formal credit for entrepreneurs, who trust the banking system increases, while the odds of access to informal credit, relative to no credit, decreases. However, the trust variable is not significant. Being a member of a network significantly affects access to formal credit, relative to no credit. Interestingly network membership does not affect access to informal credit. This could be because entrepreneurs who fulfil the requirements to access credit from formal institutions might not access credit from informal sources. Informal interrelationships in networks that enhance access to formal credit would be different from networks which can obtain help with accessing informal credit. The odds of accessing formal credit, when an entrepreneur is a member of a network, which supports their business, increases by 1.03 units.

Table 8.6 Multinomial Logit Coefficients

Variable	Formal	Informal
Gender	-0.88*** (0.26)	0.16 (0.39)
Business age	0.09** (0.04)	0.15** (0.07)
Business age2	-0.09 (0.12)	-0.23 (0.19)
Secondary	-0.02 (0.60)	-1.37* (0.71)
Trade	0.72*** (0.27)	0.30 (0.38)
Network member	1.03*** (0.37)	0.72 (0.54)
_cons	-3.31* (1.95)	-3.68 (2.79)
Model evaluation tests		
Log likelihood value	-386.80	
LR test χ^2 , d.f	98.31 (36)***	
Pseudo R ²	0.11	

Note: Coefficient standard errors reported in brackets. * refers to significance at 10%; ** at 5% and *** at 1%. The dependent variable is 1 if formal; 2 if informal; 3 if no credit. No credit is the reference outcome.

8.5 Chapter Synthesis

The issue of lack of and unequal access to formal finance due to a number of firm characteristics has been discussed widely in the literature. In developing countries, particularly, this problem is complicated further due to extent of information asymmetry problems. To provide evidence for social capital as an additional factor, three models are estimated and they provide similar results relating to the effect of various firm characteristics on access to formal credit. Although results for network membership and other social capital proxy measures were also similar across the models, multinomial logit estimates provide the most robust results because they account for all individuals who have or have not accessed credit. The chapter concludes that social capital has an effect on access to formal credit for small and medium enterprises, and hence a key determinant in access to formal credit. These results are in line with Ruziev and Midmore (2015) who, despite using different proxy measures, found a significant effect of social capital on access to formal finance. The analysis also revealed that trust in the banking system and revenue affects the probability of operating a bank account. Various studies have revealed that distance to banks affects access to financial services. Distance was not an issue in this study because all respondents were drawn from within city centres where banking facilities are readily available.

These findings show that social capital is a determinant of access to formal credit for small and medium enterprises in developing countries. The suggestion is that policy makers concerned with promoting entrepreneurship should not only be concerned about enhancing the wider macroeconomic environment. They should also consider ways of strengthening and mobilising social attributes within the environment, to enhance access to formal credit. Deliberate efforts need to be employed to attract as many entrepreneurs as possible to use formal financial services because access to formal finance is associated with faster enterprise growth (Ayyagari et al., 2010). This chapter proposes improvements in a range of communication methods including social media to remove the myth that formal financial services are for enterprises that have high revenues. Additionally, use of interpersonal networks can be enhanced through ensuring an environment for vibrant networks, which can serve as links to financial institutions, as a first step in accessing formal credit. These linkages will enable entrepreneurs and the wider public to have better knowledge about services offered by the formal financial service providers.

Although the results provide evidence of the effect of social capital on credit access, further research on two key questions would complement such evidence for policy making. Since there are various types of networks, it would be interesting to know which specific networks are important and how the identified networks enhance access to formal credit, before recommending strategies of enhancing use of social capital in formal credit access. The discussion so far has concentrated on providing evidence of the role of social capital in determining access to formal credit for SMEs. However, regardless of ease of access to formal credit, formal lenders would not offer credit if they do not have a sustainable source of funds for lending. Chapter 9 discusses the supply side of formal credit by exploring whether domestic savings mobilisation by depository institutions might affect credit to the private sector.

CHAPTER 9 DOMESTIC SAVINGS MOBILISATION AND PRIVATE SECTOR CREDIT: A COINTEGRATION ANALYSIS FOR MALAWI

While increased aid commitments to developing countries should be commended, it is still necessary to stress the importance of mobilising domestic resources to increase supply of private credit, as an engine for sustainable development. Chapter 3 revealed the gap in literature on use of domestic savings mobilization to improve credit flow to SMEs in developing countries. In this chapter we show that in a low income country, savings mobilized domestically by commercial banks do not have a significant effect on credit extended to the private sector. However, mobilised savings significantly affect credit, supplied by the financial sector, to all other productive sectors of the economy. This chapter also uses econometric methodologies to compare causality results for three indicators of financial intermediation, using time series data for Malawi. The finding broadens our knowledge on the efficiency of commercial banks in allocating credit to small and medium enterprises, as a contribution to sustainable economic growth in a low income country.

9.1 Finance for Development

Many developing countries depend on external financial flows to support their development initiatives. Countries are therefore inclined to borrow more from overseas due to an increasing gap between national savings and domestic investment (Tiruneh, 2004), which results in a vicious circle of indebtedness. Countries borrow more to finance the deficits. However the deficits also keep increasing because of weak efforts to intensify domestic savings mobilisation. In corresponding with this view, Boone (1996) and Djankov et al. (2006) showed that there was a negative relationship between aid and investment because aid encourages rent-seeking behaviours, and makes it possible for policy makers to avoid necessary but painful reforms (Gyimah-Brempong & Racine, 2010). Therefore, relying mainly on aid flows, as a source of development finance, may result in non-attainment of development goals. Additionally, the 2007 global financial crisis reduced external flows into African economies, which made it more difficult, and expensive to attract private capital than before (Aryeetey, 2009). For example, it was estimated that the weighted average growth in sub Saharan Africa dropped from 6.5% between 2002 and 2007, the highest that it had been in more than 30 years, to only 1 per cent in 2009. This was after almost a decade of strong performance (Aryeetey and Ackah, 2011). Therefore, developing countries need to

increase efforts of mobilising domestic funds to finance their development needs. This also corresponds with the Monterrey Consensus, (2002), and hence financial institutions are expected to play an important role to support such efforts in the development process.

Private savings mobilisation is of crucial importance for achieving sustainable development and poverty-reducing growth (Mavrotas and Kelly, 2001). However, this growth can only be achieved if the savings are effectively channelled to the private sector for investment. Although there is some progress in research and policy on the domestic resource mobilisation debate, there are still unresolved issues that need attention (Mavrotas, 2008). To contribute to the debate, this chapter uses the bounds test of cointegration, proposed by Pesaran et al. (2001), and the Toda and Yamamoto (1995) test for non-causality, to examine the short-term and long-term relationships between domestic credit flows to the private sector, and financial intermediation indicators for Malawi.

9.1.1 Why Domestic Savings Mobilization?

To achieve sustainable growth, the banking sector has to be efficient and effective to respond favourably to the needs of the productive sectors of the economy (Chirwa, 2001). Finance is one of the key sectors for modern economies' economic growth (Beim and Calomiris, 2001: p.56). However, knowledge to inform policy formation, of the extent to which the financial system in developing countries effectively mobilizes domestic resources for private investments, is limited. Whether economic growth is achieved through better information flows, as a result of innovative technologies, or capital accumulation from increased investments, is of secondary importance to the sustainable source of funds that can facilitate such processes.

Earlier work of Schumpeter (1911) and McKinnon and Shaw (1973) argued for financial liberalisation because state restrictions on the banking sector were inhibiting investment. In support of this proposition, a wide body of literature exists on the impact of financial sector reforms on efficiency of commercial banks in mobilising savings and economic growth. The literature covers both developing and developed economies (Claessens and Leaven, 2004; Mavrotas, 2005; Kelly and Mavrotas, 2008; Kasekende et al., 2009). However, the empirical evidence on financial development (financial savings) and economic growth is not only

inconclusive in supporting or rejecting the proposed impacts, but it has also yielded conflicting results (see Chapter 3 for a detailed discussion of similar empirical studies).

In a study of a heterogeneous panel of 17 African countries, Kelly and Mavrotas (2008) used panel integration and cointegration tests to examine the impact of financial sector development on private savings. The relationship between financial sector development and private savings was inconclusive, although in most countries a positive relationship was observed. Using data on selected developing countries, Reinhart and Tokatlidis (2003) concluded that liberalisation failed to enhance savings mobilisation and financial deepening for Sub Saharan economies. Similarly, a study by Anoruo and Ahmad (2001) concluded that there was a long-run relationship between economic growth and the savings growth rate for Congo, Côte d'Ivoire, Ghana, Kenya, South Africa, and Zambia. Levine and Zervos (1998), Bandiera et al. (2000) and Reinhart and Tokatlidis (2003) concluded that financial reforms and development indicators can either have a negative impact or are not significant for financial savings in developing countries. Levine et al. (2000) found a significant impact of financial intermediation on economic growth and productivity. Using the Ghanaian economy as a case, Adenutsi (2002) concluded that the effect of financial liberalisation on economic performance was harmful, but a positive indirect effect existed through improved mobilisation of savings by commercial banks.

9.2 Savings and Investment Nexus

Financial sector reforms contribute to how the financial system operates in an economy. The financial system, which consists of markets and intermediaries, is essential for an economy. This is because it spurs economic growth through channeling of funds from savers to investors. Therefore, well-functioning financial markets and intermediaries are needed to improve economic efficiency, and are crucial for a healthy economy (Mishkin, 1997).

9.2.1 Savings, Investments and Economic Growth

In literature the existence of a positive relationship between savings and economic growth is explained through two hypotheses; (1) savings affect economic growth through investment according to Harrod (1939), Domar (1946), and Solow (1956) and given empirical support by Alguacil et al. (2004) and Singh (2010); (2) economic growth affects savings, a theory which

is empirically supported by Agrawal (2001), Anoruo and Ahmad (2001), and Narayan and Narayan (2006), among others. Regardless of which factor affects the other, conventionally savings are an essential component in promoting investment, and hence economic growth.

In literature, the existence of an efficient financial system, as an important ingredient of economic growth, is taken into consideration by the recent growth models (Shah and Shah, 2011). Reinhart and Tokatlidis (2003) noted that financial liberalization policies promote economic growth by affecting savings and investments through the interest channel (the asset returns effect) and enhancement of availability and allocation of credit (the credit channel). In agreement, Lungu (2007) concluded that the bank lending channel works for countries in the SADC region alongside the asset returns channel.

9.2.2 Savings Mobilization and Developing Countries

Savings are simply postponed consumption, in other words investment for rational decision makers who want to maximise utility. Savings, export earnings and tax revenues are all sources of finance for development, in addition to aid. However, while export earnings depend on quantity, quality of production and availability of markets outside the country, which cannot always be guaranteed. It is difficult for a number of developing countries to raise tax revenues due to the shallow economic base, and presence of a large informal sector (Ghura, 1998; Stotsky and Woldemariam, 1997). In the long run, domestic resource mobilization for Africa emerges as critical in building more resilient economies, implementation of their own development agendas, as well as fighting poverty (Africa Economic outlook, 2010).

Domestic resource mobilization is the generation of domestic resources from public (taxation and other forms of public revenue) and private sectors (household and business savings) through financial sector intermediaries, and the subsequent allocation to productive investment (Culpeper, 2008). African countries need to make deliberate policy moves to mobilize additional domestic resources to offset the reduced flow of foreign resources, and to promote sustainable development (Aryeteey, 2009). Such strategies would also enhance accountability between governments and its citizens (Culpeper and Bushan, 2010). Rigorous efforts are being made to attract foreign resources in order to achieve planned development goals. Unfortunately these efforts can reduce initiatives to mobilize domestic resources, (Adam and O'Connell, 1999). On average over 30% of the budget in Malawi was supported

by donor aid until 2009, when donors withheld aid due to alleged poor governance. In 2009/2010 the government was forced to implement a zero deficit budget. Donor aid resumed in 2011 following the unexpected death of the late former president Bingu wa Mutharika. Revelations of the ‘*cash-gate*’ scandal (See Chapter 4) resulted in donors withholding aid again. The Malawi Government has once again been forced to start implementing a zero-aid budget for the 2015/2016 financial year. In addition measures to increase domestic resource mobilisation through taxation have been strengthened.

Domestic savings mobilisation is therefore a significant means of contributing to domestic resource mobilisation. Since commercial banks dominate the financial systems of developing countries, deposit mobilisation by banks stands out as another important contribution to domestic resource mobilisation efforts. Deposit mobilisation is the process where customers are encouraged to deposit cash with the bank, and attract new clients to open accounts with the bank (Elser et al., 1999). Commercial banks in developing countries are therefore critical for the performance of the financial system in enhancing development, through effective credit allocation.

9.2.3 Financial System Functions

Facilitation of the linkage between financial sector development and economic growth is understood through the five functions of the financial system categorized by Levine (1997). All the five functions are directly or indirectly related to resource allocation. These are: (1) allocating resources: when financial intermediation is effective firms compete for savings which not only benefits savers but also causes capital to be channelled to investment opportunities offering greatest returns (Beim and Calorimis, 2001: p.44); (2) mobilizing savings – financial systems induce mobilization of savings through pooling together individual household savings for on lending (Ang, 2008); (3) reducing risks – Since there is a large number of borrowers, financial intermediaries are able to offer services to suit varying liquidity preferences (Diamond and Dybvig, 1983); (4) facilitating exchange of goods and services; and (5) exercising corporate control. All financial institutions perform some of these functions, but only commercial banks perform all of them, and hence are responsible for the evolution of all the functions.

Measures of efficiency of the financial sector have mostly used banking system indicators as proxies for efficiency of the financial system for developing countries, because banks consist of the largest share of the financial sector in developing countries (Lungu, 2007). Banks serve as intermediaries accepting commercial and individual deposits (savings) and transform them into loans for investments (Kutan et al., 2010). This role enables the banks to offer capital at competitive rates, if they can efficiently mobilise deposits.

9.2.4 Measuring Efficiency in Financial Systems

The global financial system crisis of 2007 demonstrated how inefficiencies in the financial system can contribute to vulnerabilities over time. This emphasized the need for tracking efficiency indicators in financial systems, both at national and international levels. The financial sector generates the largest impact on economic growth by mobilizing savings and ensuring efficiency in resource allocation. The need to focus attention on how efficiently a system performs this function is therefore necessary. Currently, the research community is increasingly accepting Stiglitz's (1993) suggestion that financial markets are the 'brain' of the entire economic system – if they work, economic performance will be enhanced, but if they fail, the performance of the entire economic system may be hampered. However, although many analysts accept the importance of this 'brain', they do not fully understand how it works (Tennant et al., 2011).

To evaluate the financial system's functions four separate criteria can be used, which are information arbitrage, fundamental valuation, full insurance and functional efficiency (Tobin, 1984). Information arbitrage measures the extent to which it is possible to gain from trading on the basis of available information. Fundamental valuation focuses on the extent to which asset market values accurately reflect the present value of future payments associated with investing in them. Full insurance measures the degree to which the financial system offers ways of hedging against future risks (Fry, 1995: p.296). Functional efficiency, which is the focus of this research, makes an assessment of risk pooling, resource mobilization, general insurance, administering the payment mechanism and mobilizing savings for investment. Bloor and Hunt (2011) described measurement of efficiency through analysing whether the financial system is helping to allocate resources to their best use (allocative efficiency); doing so in a cost-effective manner (technical efficiency); and whether it responds to both changing

demand and uncertainty over time through the development of new financial processes, services and products (dynamic efficiency).

The allocative efficiency approach will be relevant for the case study country because it is dominated by banks with small and underdeveloped bond and equity markets. A number of studies of financial system efficiency have used the institutional or sectorial lens approach, where performance of institutions is compared within the country or with other countries (Bloor and Hunt, 2011). This chapter uses a functional approach analysis because functions are less dynamic over time and across borders as opposed to institutions which are also structured according to functions (Merton, 1995)

9.3 Empirical Studies on Savings in Malawi

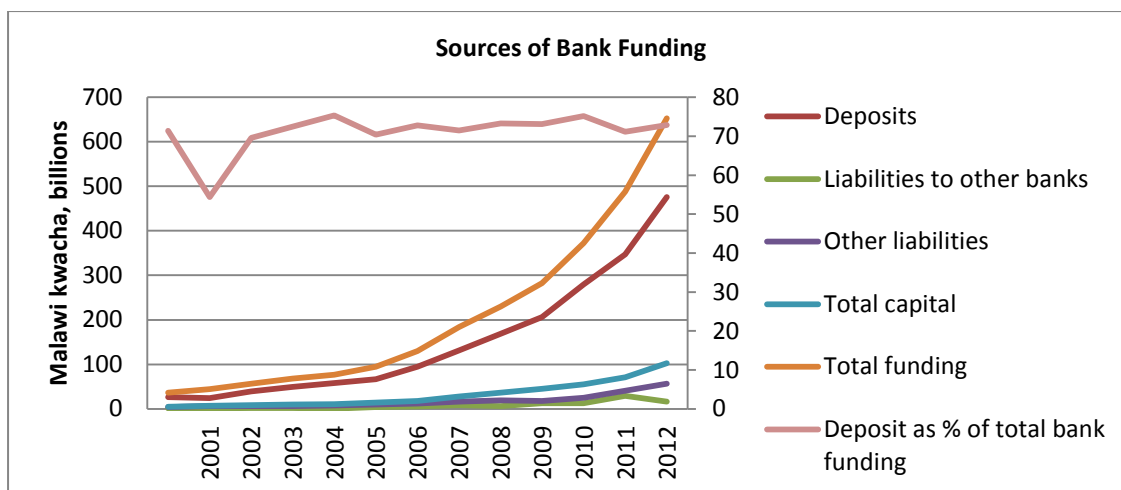
Empirical studies on financial sector reforms, savings mobilization and economic growth in Malawi have been limited despite the sector's importance to development. This kind of investigation has mostly been conducted in South Asian and Latin American countries, leaving some of the poor countries in Sub-Saharan Africa with little or no attention (Odhiambo, 2009). Chipeta and Mkandawire (1991, 1992) looked at the role of the informal sector and the linkages that exists between the formal and informal sector in Malawi. Their results may not portray the current status quo because, following these studies, a number of initiatives affecting the financial sector have subsequently taken place since 1992 (see Chapter 4). Other well-documented studies undertaken concentrated on the effects of liberalization on savings; profitability of the banking industry; monetary policy; and other industries and firms (Chirwa, 2001; Chirwa & Mlachila, 2004; Kabango & Paloni, 2011; Ngalawa, 2010). The most recent study (Bittencourt, 2012) investigated effects of financial reforms on consumption behaviour in Malawi, and concluded that these are a result of both liquidity constraints and myopia. The increase in consumption in Malawi can be explained along by factors other than financial liberalization. In most of these studies the expectation was that reforms would affect mobilization of savings and investment through their effect on availability and allocation of credit. On the contrary, they demonstrated that savings and private credit declined, while aggregate household consumption increased during the liberalisation period in the 1980's and 1990's in Malawi (Bittencourt, 2012). This chapter contributes to this body of literature for Malawi by analysing causality relationships between savings and credit to the private sector.

9.4 The Economic Model

Financial reforms and liberalisation programmes are largely implemented in economies to enhance resource mobilisation and allocation, to improve productivity, ultimately leading to economic growth. If such reforms are successful, credit availability and allocation should be achieved efficiently by the financial system. This is as a result of improved resource mobilisation due to higher public confidence in the banking system. Credit extended to the private sector contributes to capital accumulation through investments. The private sector credit ratio to GDP is the variable of interest which is chosen following Beck et al. (2000). This measure only captures credit issued to the private sector, and it is also an estimate of credit issued by intermediaries other than the central bank.

To further capture credit issued to the private sector by commercial banks, private sector credit provided by banks as a percentage of GDP (DCPSB) was used, as an alternative measure of financial intermediation. The overall intermediation role was further captured using yet other financial intermediation indicators which are; deposit money bank assets as a percentage of GDP (DMBA), and domestic credit provided by the financial sector (DCPSF). However, DCPSF does not differentiate between credits to the private and public sectors of the economy.

Indicators of financial size and depth include a ratio of private sector credit to GDP, ratio of broad money to GDP (BM) and ratio of bank deposits (BD) to GDP (IMF, 2004). Bank deposits also indicate extent of savings mobilised by the deposit taking institutions. Banks are in the business of lending money, which is sourced from both the public and private sectors. In Malawi, bank deposits are so far the largest source of funds for banks followed by debt and owners' equity (Figure 9.1). Deposits contributed, on average, 70% of the total commercial bank funding between 2002 and 2012. Holding other factors constant, ultimate savers will increase their savings if they have confidence in the banking system, and when the services are made available to the savers.



Source: Reserve Bank of Malawi

Figure 9.1 Sources of Bank Funding

An increase in the supply of financial assets in an economy is referred to as financial deepening. This is also an indication of higher public confidence in the banking system (Adenutsi, 2002). Broad money (M2) as a ratio of GDP is used as a proxy for financial deepening. If the public is confident with the banking system they are more likely to use the products offered, which are mainly savings and lending products. Investment in Government securities is one of the various uses of funds sourced by banks (See Chapter 4.1) However, a common idea in policy discussions is that government borrowing may crowd out credit to private sector in developing countries. Credit extended to government and parastatals is therefore included as an endogenous variable.

A high inflation rate is another factor which negatively affects savings mobilised by banks. This worsens the situation further, especially in low income countries, where the propensity to save is already low. If there are not enough savings mobilised by the banking sector, investment is negatively affected. Inflation is therefore a key factor that can affect savings mobilisation. According to macroeconomic theory, if savings are mobilised efficiently, excess liquidity is reduced in the system resulting in lower inflation. The real inflation rate, RIR is therefore included in the model.

The economic model is therefore fitted as:

$$DCPSB=f(BM, BD, RIR, CGVT, GDP) \dots\dots\dots (9.1)$$

9.5 Methodology

As noted, in Chapter 3 section 2.3, different types of data and proxy variables have been used in empirical studies on causality between finance and economic growth. Generally, growth equations are mostly used in purely cross-country and panel analyses, while time series analyses usually adopt a vector auto-regressive (VAR) framework or a single equation error-correction framework (Ang, 2008). This chapter uses time series data, and hence a VAR approach is adopted. When setting up an econometric model for time series data, knowing the order of integration is required to aid in selecting the appropriate model to use. Different methodologies to determine interaction between two or more time series variables have been proposed in the econometric literature. The maximum likelihood based approach proposed by Johansen (1988), Johansen and Juselius (1990), and the Engle and Granger (1987) method are among the most widely used. However these methods have a drawback in that they require all variables being investigated to be integrated in the first order, $I(1)$. In order to achieve this, practically, stationarity tests are involved which might introduce uncertainty into the analysis. Furthermore, Harris (1995) noted that they also have low power when dealing with small samples. This study therefore uses other popular approaches available in literature namely the bounds test to cointegration proposed by Pesaran et al. (2001) and the Toda and Yamamoto (1995) test for non-causality. These tests are notably more efficient in small sample data sizes and are also appropriate for series where the order of integration is not known or may not be the same for all variables (Pesaran and Pesaran, 1997). Additionally, every variable in the fitted model is presupposed as endogenous with short run and Long run parameters simultaneously estimated. This approach has hence been widely used in several empirical studies that have applied the bounds approach to small sample sizes, for example Tang and Nair (2002), Narayan and Smyth (2003) and Enisan and Olufisayo (2009). These researchers all used the approach on small number of observations. The Toda and Yamamoto (1995) method is adopted to derive inferences regarding the direction of causality, because it does not require pre testing for cointegration properties.

The Augmented Dickey Fuller test is conducted to confirm that none of the series in the model are integrated of orders higher than one. This is done because the autoregressive distributed lag (ARDL) model breaks down in the presence of $I(2)$ or higher series (Enders, 1995). For the cointegration procedure, the Wald or F-statistic in a generalized Dickey-Fuller type regression is used to test the significance of lagged levels of the variables under

consideration in a conditional unrestricted equilibrium error correction model (ECM) (Pesaran et al., 2001)

9.5.1 Data Sources

Available annual time series data from 1981 to 2011 for the selected finance variables in equation 1 (Section 9.5) was used in the analysis. The data was sourced from the Reserve Bank of Malawi, World Development Indicators database as published by the World Bank, International Financial statistics (IFS), and the International Monetary Fund (IMF). Data on the following indicator variables was downloaded in May, 2014; bank deposits to GDP (%), deposit money banks' assets to GDP (%), domestic credit to private sector by banks (% of GDP), broad money (% of GDP), real rate of inflation (%), domestic credit to private sector (% of GDP), credit to government and state owned enterprises (% of GDP) and GDP growth rate (%). In cases where heteroskedasticity was detected in a model, some variables were transformed into natural logarithms to address the problem.

9.5.2 Empirical Analysis

An Autoregressive distributed lag (ARDL) model was used in the analysis. This model contains both lagged values of the dependent variables, and the independent variables. The general form of the model, with p lags of y and q lags of x, is represented in equation (9.2)

$$y_t = \alpha + \sum_{i=1}^p A_i y_{t-1} + \sum_{i=0}^q B'_i x_{t-1} + v_t \dots\dots\dots (9.2)$$

Where α is a constant, x_t is a 5 dimensional column vector process, B'_i and A_i are row vectors and scalar coefficients to be estimated and v_t is a scalar zero mean error term. The ARDL error correction model representation of the economic model (9.1) is as follows:

$$\begin{aligned} DCPSB_t = & \alpha + \sum_{i=1}^p \alpha_{1i} \Delta DCPSB_{t-1} + \sum_{i=0}^q \alpha_{2i} \Delta BM_{t-1} + \sum_{i=0}^q \alpha_{3i} \Delta GDP_{t-1} + \\ & \sum_{i=0}^q \alpha_{4i} \Delta BD_{t-1} + \sum_{i=0}^q \alpha_{5i} \Delta RIR_{t-1} + \sum_{i=0}^q \alpha_{6i} \Delta CGVT_{t-1} + \beta_2 BM_{t-1} + \beta_3 GDP_{t-1} + \\ & \beta_4 BD_{t-1} + \beta_5 RIR_{t-1} + \beta_6 CGVT_{t-1} + \beta_1 DCPSB_{t-1} + \lambda EC_{t-1} + v_{1t} \dots\dots\dots (9.3) \end{aligned}$$

Where Δ is the first difference operator and v_{1t} is the white noise disturbance term. DCPSB, the dependent variable, is percentage ratio of domestic credit extended to private sector by

banks to GDP. GDP is annual gross domestic product growth rate and bank deposit (BD) is a measure of intermediation representing bank deposits as a ratio of GDP³¹. Two measures of financial reform are used, following Balamoune and Chowdhury (2003), which are broad money (BM), a measure of volume of intermediation or financial depth, and it is calculated as the ratio of broad money to GDP, and real inflation rate (RIR), as a measure of financial liberalisation. Credit to Government and state owned an enterprise (CGVT) is a measure of credit extended to government. It is calculated as a percentage to GDP. EC_{t-1} , is the error correction term, β represents the long run relationship, and α measures the short run relationship among the variables. The speed of adjustment of the parameters is measured by λ . In order to assess the sensitivity of results to changes in proxy indicators, three models were estimated, with credit to private sector, credit provided by the financial sector and deposit money bank assets as dependent variables, respectively.

In the first stage of the analysis, a null hypothesis of no cointegration is tested using the F statistic, which is expressed as:

$$H_0: \beta_1 = \beta_2 = \dots B_n = 0$$

$$H_1: \beta_1 = \beta_2 = \dots B_n \neq 0$$

In the second stage, lag length is selected using the Akaike Information Criteria (AIC) and then long run and short run coefficients are estimated using a vector error correction model (VECM). This is done following the ARDL testing and confirmation of presence of cointegration. In the VECM each variable in the model has one error correction equation.

9.6 Analytical Outcomes

9.6.1 Unit Root Tests

An association among the chosen variables was investigated, using a correlation matrix, before fitting a model. Table 9.1 displays the correlation coefficients among the endogenous variables. The results indicate a high positive correlation among the financial sector development proxy indicators private sector credit by banks, private sector credit, deposit money bank assets and private sector credit by financial sector. A high positive association

³¹ Demand, time and saving deposits in deposit money banks as a share of GDP, calculated using the following deflation method: $\{(0.5) * [F_t/P_{et} + F_{t-1}/P_{et-1}]\} / [GDP_t/P_{at}]$ where F is demand and time and saving deposits, P_e is end-of period CPI, and \bar{P}_a is average annual CPI. (IFS & IMF)

between credit to private sector by banks (DCPSB), bank deposits (BD) and financial deepening (BM) is also observed. A negative weak association is noted between inflation rate (RIR), GDP growth (GDP) and DCPSB.

Table 9.1 Correlation Matrix

	DCPSB	DMBA	DCPS	DCPSF	BD	BM	RIR	CGVT	GDP
DCPSB³²	1.0000								
DMBA³³	0.9432	1.0000							
DCPS³⁴	0.9761	0.8882	1.0000						
DCFS³⁵	0.8790	0.9453	0.8256	1.0000					
BD	0.8204	0.8468	0.7735	0.7833	1.0000				
BM	0.7682	0.7704	0.7274	0.7147	0.9472	1.0000			
RIR	-0.0615	-0.1126	0.0140	-0.1011	-0.0879	-0.0740	1.0000		
CGVT	0.2347	0.4803	0.1462	0.4394	0.3837	0.4062	-0.0627	1.0000	
GDP	-0.2938	-0.2114	-0.3472	-0.2840	-0.2609	-0.2382	-0.0365	0.2696	1.0000

³² Financial resources to the private sector provided by the deposit money banks

³³ Claims on domestic real non-financial sector by deposit money.

³⁴ Financial resources to the private sector provided by the financial corporations and deposit money banks

³⁵ All credit from the financial sector to various sectors except credit to central government

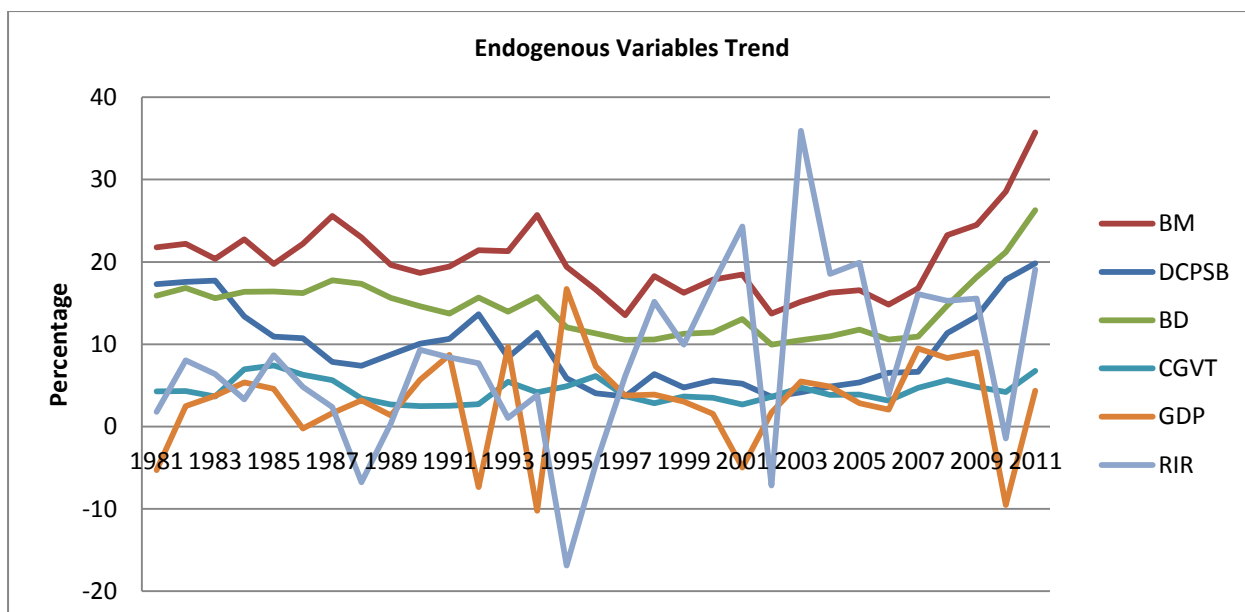


Figure 9.2 Endogenous Variables Series Trend

A line plot for the variables of interest indicated that the series are trending hence potentially as I (1) processes (see Figure 9.2). However to confirm the visual diagnosis, properties of time series data need to be checked before estimation. Estimations done using non-stationary series lead to spurious regression results because the series do not return to a long run deterministic trend, and variance of the series is dependent on time (Glynn et al., 2007). Most macroeconomics and financial variables tend to be non-stationary hence non-stationarity was tested using the Augmented Dickey Fuller (ADF) test. Table 9.2 shows results of the ADF test.

Table 9.2 ADF Test Results with Trend and Constant

Variable	Level	1 st Difference	Order of integration
PS ⁺ credit by banks	-0.143	-6.570	I(1)
PS credit	-0.668	-5.971	I(1)
Claims on real sector	1.952	-3.896	I(1)
PS credit by financial sector	-0.477	-5.590	I(1)
Bank deposits	1.728	-4.42	I(1)
Broad money	-0.022	-5.11	I(1)
Inflation rate	-5.247		I(0)
Credit to Government	-2.538	-5.269	I(1)
Gross domestic product	-7.549		I(0)

Note: 5% critical value, -3.584; + private sector

The ADF test results in Table 9.2 indicate that all variables are I (1) except inflation rate and GDP growth, which are I (0) processes. Having confirmed that variables to be included are I (0) and I (1), an ARDL model was used to conduct a cointegration test. ARDL was chosen because it is capable of jointly handling I (0) and I (1) processes (see section 9.4 for more details).

9.6.2 Cointegration and Granger Causality Analysis

Although selection of the number of lags is not necessary when conducting ARDL, a lag of 3 was selected following SBIC, AIC and HQIC criteria. Results of the ARDL (3, 3, 3, 3, 3, 3) are presented in Table 9.3. The Wald statistic is used to examine the integration relationship. However, because this statistic does not have a standard distribution, critical values provided in Pesaran et al. (2001) are used for the test. If the computed F statistic is lower than the critical lower bound, the null hypothesis is not rejected and the conclusion is that there is no long run relationship between credits provided to the private sector and the independent variables, and vice versa where the F statistic is higher than the upper bound. The result is inconclusive if the obtained F statistic falls in between the lower and the upper bound. The F statistic is obtained when each variable is considered as a dependent variable. The results indicated presence of 2 cointegrating relationships in a model. This rank was chosen, using a trace statistic of 37.98, which was less than the critical value of 47.21. A bounds test was conducted to investigate the relationships further. The bounds test results are presented in Table 9.3.

Table 9.3 Bounds Test Results

Dependent variable	AIC lags	F statistic*	Decision
PS credit by banks	3	8.83	Cointegration
Bank deposits	3	8.19	Cointegration
Broad money	3	2.78	No cointegration
Inflation rate	3	3.06	No cointegration
Credit to government	3	2.79	No cointegration
Gross domestic product	3	1.28	No cointegration

* Lower bound critical value at 1% 4.32 and upper bound critical value at 1% 5.624 (Adapted from Pesaran et al., 2001)

The results of the bounds test, in Table 9.3, indicate that there is a long run relationship among the variables in the model when private sector credit by banks and bank deposits are dependent variables. However, for inflation rate, broad money, GDP and credit to

government variables the null hypothesis of no cointegration fails to be rejected. This result confirms the earlier cointegrating rank test results, which indicated presence of two cointegrating relationships among the variables. Although, cointegration indicates presence of Granger causality (in one direction), the direction of causality among the variables is better detected through use of a vector error correction model (VECM) (Odhiambo, 2009). Table 9.4 to Table 9.6 displays results for Granger causality for private sector credit by banks variable.

Table 9.4 Long Run Autoregressive Distributed Lag Estimates

Variable	Coefficient (standard error)	P value
Bank deposits	-0.42 (0.02)	0.0000***
Broad money	0.27 (0.03)	0.0000***
Gross domestic product	-0.19 (0.1)	0.0000***
Credit to government	0.21 (0.02)	0.0000***
ECM(-1)	-0.48 (0.13)	0.0000***

***Significance at 1%

The fit for the ARDL underlying equation was good and significant overall at 1% level. The diagnostic tests of Durbin Watson, Breusch-Godfrey, Engle's Lagrange Multiplier (ARCH) and Jarque-Bera indicated a good model fit (see Table 9.5). The negative coefficient of the error correction model in Table 9.4 indicates significant long run causality from the independent variables to private sector credit by banks. Bank deposits, broad money, credit to government and GDP growth rate have a significant effect on private sector credit by banks (DCPSB) in the long run. A negative relationship is observed for bank deposit and GDP. A possible explanation is that not all deposits mobilised by the bank are invested in private sector credit (see Chapter 4.1.) Credit to government and statutory bodies are positively related to DCPSB. Growth in gross domestic product is not only contributed by credit extended by banks, and hence the negative relationship. Grants, credit from other development institutions, and foreign direct investments are among other significant factors. This result supports the findings of Simwaka et al. (2012) who reported that for the Malawi economy, capacity utilisation rather than financial development has a significant impact on economic growth.

In the short run only bank deposits in the second lag and broad money has a positive and significant effect on DCPSB (see Table 9.5). Pairwise Granger causality results for all the

variables are presented in Table 9.6. There is a one-way causality from DCPSB to GDP, supporting the hypothesis that financial development can cause economic growth through the credit channel. However, for the case of Malawi, the absence of causality running from bank deposits to DCPSB could indicate that banks invest most of the mobilised deposits in money markets and other high earning, less risky financial assets at the expense of credit to private sector. However a positive association observed in the short run could indicate that bank mobilised deposits are invested in short term credit to the private sector. This is in response to the unfavourable macroeconomic environment. High interest, high inflation rates and fluctuating value of currency, contributed to a net domestic credit to the government between 2000 and 2004, which affected real investments in Malawi (Gondwe, 2005). The null hypothesis of no Granger causality from bank deposits to private sector credit by banks is not rejected.

Table 9.5 Short Run Estimates for Private Sector Credit by Banks

Variable	Coefficient	P value
BD(-2)	1.20	0.001***
BM (-1)	0.64	0.093*
***significance at 1% *significance at 10% Adjusted R ² = 0.77, F statistic = 8.83, p<0.01, standard error = 0.24 Breusch-Pagan chi2 0.81, p>0.05 LM test (Lag1)32.69, p= 0.62; (Lag2) 45.73, p=0.12 Durbin Watson 2.51 Jarque-Bera test $\chi^2(5.753)$, p = 0.93		

Table 9.6 Granger Causality for Private Sector Credit by Banks

Null hypothesis	F Statistic	P value
Credit by bank does not Granger cause GDP	24.76	0.0000***
GDP does not Granger cause credit by bank	5.70	0.0577**
Bank deposits does not Granger cause GDP	9.95	0.0001***
Broad money does not Granger cause Bank deposits	52.10	0.0000***
Broad money does not Granger cause GDP	15.58	0.0000***
Credit to government does not Granger cause broad money	8.44	0.0147**
Credit by banks does not Granger cause credit to government	9.85	0.0073***
Credit to government does not Granger cause GDP	11.81	0.0027***

***significance at 1%, **significance at 5%, *significance at 10%

9.6.3 Stability Tests

The structural stability test for the model was tested by plotting cumulative sum of recursive residuals (CUSUM), and the CUSUM squares of residuals. CUSUM test detects any

systematic eventual movements where the coefficient values indicate a possible structural instability (Farhani, 2012). Random movements not emanating from structural change in coefficients is tested by employing the CUSUMSQ test. Figure 9.3 and Figure 9.4 present the results.

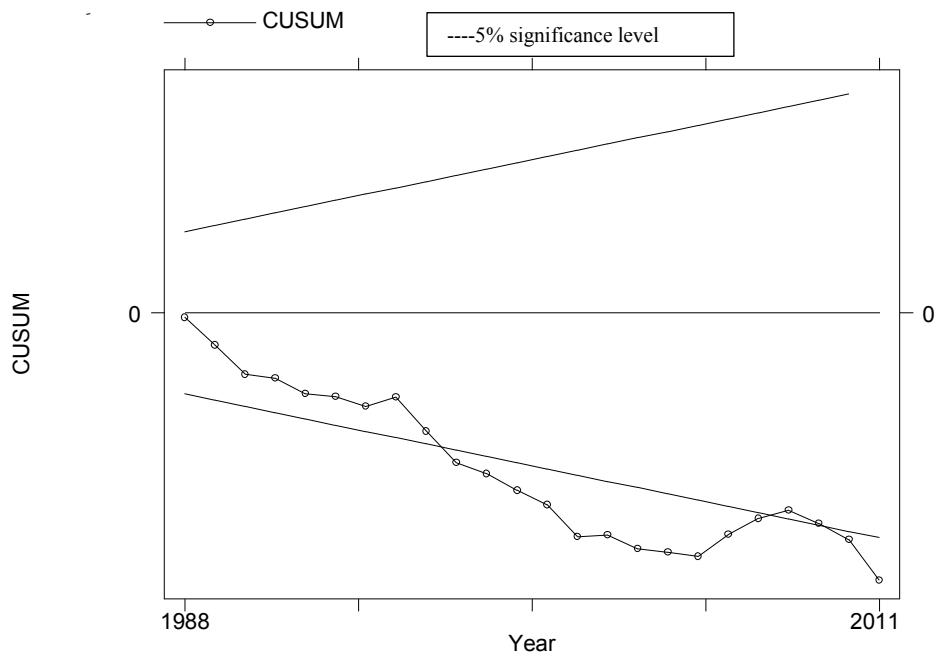


Figure 9.3 CUSUM Stability Plot for Private Sector Credit by Banks

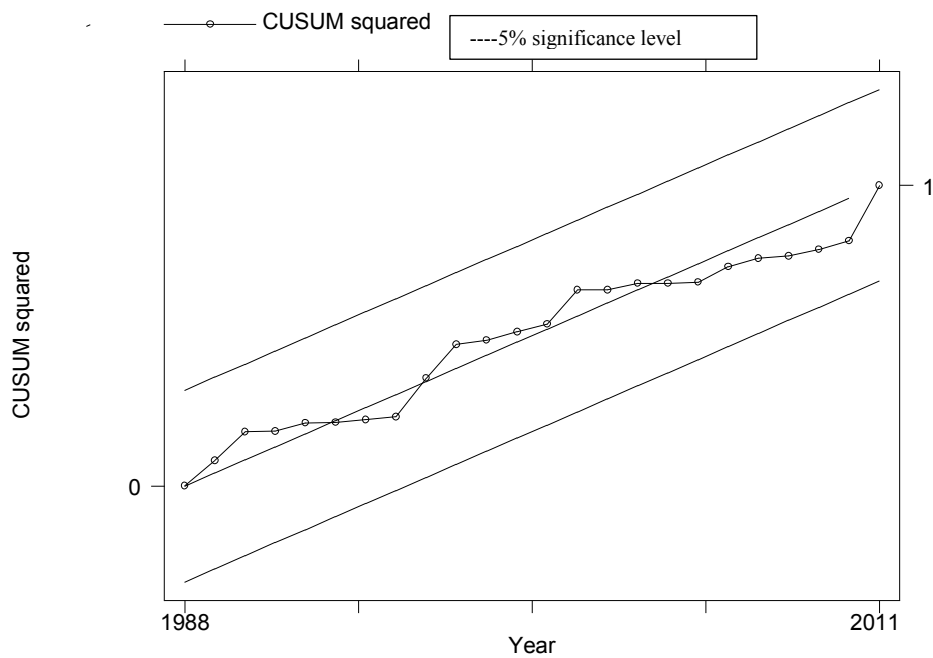


Figure 9.4 CUSUMSQU Stability Plot for Private Sector Credit by Banks

On the basis of this model, the results indicate a possible break in parameter constancy around 1997, as indicated by the CUSUM plot which breaks below the lower bound (Figure 9.3). However, the CUSUMSQU plot indicates stability (Figure 9.4). A structural break may be a change in a time series as a result of a unique economic event (Glynn et al., 2007). If present in a series, it can affect the unit root tests. Three tests were therefore employed to test for presence of exogenous, one endogenous and two endogenous structural breaks on the series. The Chow test tests the difference between results from a model run on two samples, one before and the other after an identified break date. However, results from Chow tests can be misleading if the break date is correlated with the data (Hansen, 2001). A Zivot-Andrews test was done to test for one endogenous break and the Clemente, Montanez and Reyes test was employed to test for endogenous structural breaks. The results for the three tests, on DCPSB and BD, compared with ADF test results, are presented in Table 9.7 and Figure 9.5.

Table 9.7 Unit Root tests with Structural Breaks

Variable	ADF	Chow test (p=0.10)	Zivot-Andrews	Clemente, Montanez and Reyes	
				AO	IO
DCPSB	Unit root	No break	Unit root	Unit root, no unit root	Unit root
BD	Unit root	Unit root	Unit root	Unit root, no unit root	Unit root
Break Dates					
DCPSB	-	No break	2005	1992, 2007	1993, 2007
BD	-	1986	2006	1992, 2007	1989, 1993

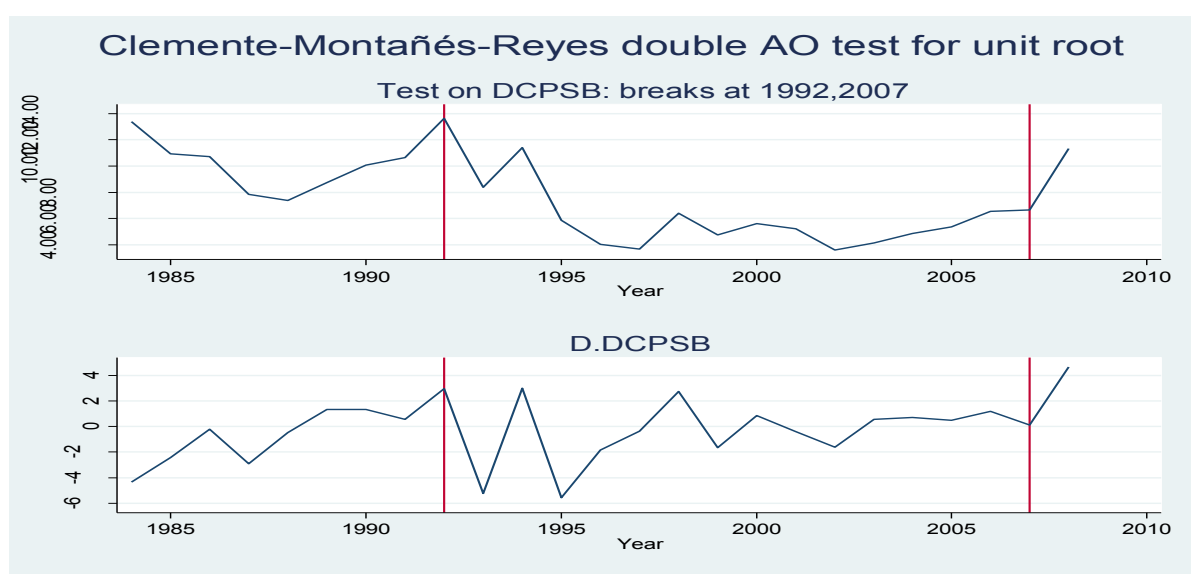


Figure 9.5 Additive Outlier Test Plot

The results indicate that the DCPSB and BD series exhibit an Additive Outlier (AO) model structural break in 1992 and 2007, with 2007 being significant. AO models assume changes taking place rapidly hence a break in slope only as opposed to Innovative Outlier(IO) model, which assumes a break in both intercept and slope (Perron and Vogelsand, 1992; Perron, 1997). A visual inspection of the trend in Figure 9.2 indicates an increasing trend from 2007 onwards for DCPSB, BD and BM. The visual trend is also backed by a series of events that took place around that time. Following a change on the political front in Malawi, in 2004, the economy took a positive turn as a result of good rains and a fertiliser subsidy programme. The Malawi economy grew by 8.5% in 2006 and 7.6% in 2007 compared with 2.2% in 2005 (Reserve Bank of Malawi, 2010). In 2006, the external inflows from debt relief sources increased and cancellation of debt following attainment of HIPC completion point. The

positive outturn was also attributed to the lagged effects of a downward adjustment of interest rates during 2006 and the second half of 2007.

The instability in the recursive residuals could be attributed to these effects. However although the constancy in parameters graph (Figure 9.3) indicates that the breaks could have started around 1996, this is not supported by any statistical tests. The figure also indicates a decline in all the endogenous variables, except GDP in 1994/95. A cointegration analysis that takes into account structural breaks would, therefore, be ideal to confirm the structural break effect on the series results. However, this is another full analysis, which was not covered in this chapter.

9.6.4 Effect of Change of Proxy Variables

Research on finance and development conducted for both developing and developed countries has employed a wide variety of proxy indicators to describe financial sector development (see Chapter 3.2.3 for a discussion). In order to explore the extent to which results differ when different proxies are used, equation (9.3) was re-estimated with the following dependent variables; deposit money bank assets (DMBA), referred to as model 2 hereon; domestic credit to private sector (DCPS), referred to as model 3 hereon; and domestic credit provided by the financial sector (DCPSF), referred to as model 4 hereon. Similar steps as discussed in section 9.4.2 were followed in the analysis. Table 9.8 present the results. A natural log transformation of the dependent variables was used in the models.

Table 9.8 Bounds Test Results for Private Sector Credit, Deposit Assets and Credit by Financial Sector

Dependent variable	F statistic*	Decision	Dependent variable	F statistic*	Decision	Dependent variable	F statistic*	Decision
Private sector credit	8.81	Cointegration	Deposit money assets	24.75	Cointegration	Credit by financial sector	15.53	Cointegration
Bank deposits	8.02	Cointegration	Bank deposits	11.10	Cointegration	Bank deposits	10.77	Cointegration
Broad money	2.94	No cointegration	Broad money	4.44	Inconclusive	Broad money	3.57	Inconclusive
Inflation rate	2.02	No cointegration	Inflation rate	3.02	No cointegration	Inflation rate	2.60	No cointegration
Credit to government	2.49	No cointegration	Credit to government	2.78	No cointegration	Credit to government	1.63	No cointegration
GDP	0.83	No cointegration	GDP	1.50	No Cointegration	GDP	1.37	No cointegration

* Lower bound critical value at 1% 4.32 and upper bound critical value at 1% 5.624 (Adapted from Pesaran et al 2001)

All the four proxy indicators namely private sector credit by banks(DCPSB), private sector credit (DCPS), deposit money bank assets (DMBA) and domestic credit by the financial sector (DCPSF), indicate similar results of cointegration. A null hypothesis of no cointegration is not rejected for bank deposits, but it failed to be rejected for the other endogenous variables in the model (Table 9.3).

Table 9.9 ARDL Cointegration Results for Three Financial Sector Proxy Variables.

(2) PS Credit (DCPS)			(3) Deposit Money Bank Assets (DMBA)			(4) PS Credit by Financial Sector (DCPSF)		
Variable	Coefficient	<i>p</i> value	Variable	Coefficient	<i>p</i> value	Variable	Coefficient	<i>p</i> value
Long Run								
Bank Deposits	-0.25(0.02)	0.000***	Bank Deposits	-0.23(0.01)	0.000***	Bank Deposits	-0.31(0.01)	0.000***
Broad Money	0.22(0.03)	0.000***	Broad Money	0.20(0.02)	0.000***	Broad Money	0.20(0.02)	0.000***
Inflation rate	0.05(0.01)	0.000***	Inflation rate	-0.01(0.01)	0.031***	Inflation rate	0.02(0.004)	0.01***
Credit to Government	-	-	Credit to Government	0.12(0.02)	0.000***	Credit to Government	-	-
GDP	0.05(0.01)	0.000***	GDP	-0.11(0.01)	0.000***	GDP	0.06(0.01)	0.000***
ECM(-1)	-0.86(0.23)	0.000***	ECM(-1)	-0.37(0.10)	0.000***	ECM(-1)	-0.72(0.20)	0.000***
Short Run								
DCPS (-1)	0.93(0.30)	0.002***	DMBA (-1)	0.84(0.25)	0.001***	DCPSF (-1)	0.54(0.22)	0.014**
Bank deposits (-2)	0.14(0.05)	0.009***	Bank deposits (-1)	-0.09(0.04)	0.030**	DCPSF (-2)	-0.58(0.29)	0.046**
Inflation rate(-1)	0.02(0.01)	0.029**	Bank deposits (-2)	0.08(0.03)	0.002***	Bank deposits (-2)	0.16(0.05)	0.001***
			Broad money (-1)	0.05(0.02)	0.012**	Broad money (-1)	0.11(0.04)	0.004***
			Inflation rate (-1)	-0.01(0.003)	0.008***	Credit to Government	0.10(0.03)	0.009***
			Credit to Government	0.05(0.03)	0.047**	GDP(-1)	0.06(0.01)	0.000***
						GDP(-2)	0.02(0.01)	0.006***
***significance at 1%, ** 5%			***significance at 1%, ** 5%			***significance at 1%, ** 5%		
Adjusted R ² = 0.77, F statistic = 8.81, p<0.01, Standard error = 0.19			Adjusted R ² = 0.88, F statistic= 24.75, p<0.01, Standard error = 0.11			Adjusted R ² = 0.86, F statistic = 15.53, p<0.01, standard error = 0.17		
Breusch-Pagan chi2 0.05, p>0.05			Breusch-Pagan chi2 2.38, p>0.05			Breusch-Pagan chi2 0.85, p>0.05		
LM test 40.28, p= 0.28			LM test 40.09, p= 0.29			LM test 43.03, p= 0.20		
Durbin Watson 2.63			Durbin Watson 2.18			Durbin Watson 2.29		
Jarque-Bera test $\chi^2(4.195)$, <i>p</i> = 0.97			Jarque-Bera test $\chi^2(16.76)$, <i>p</i> = 0.16			Jarque-Bera test $\chi^2(10.02)$, <i>p</i> = 0.61		

There is a significant long run relationship running from the independent variables to all three financial sector proxy variables (Table 9.9). The short run results indicate a positive and significant relationship for second lag of bank deposits in all the four models. A positive and significant relationship is also observed with credit to Government and statutory corporations in the DMBA and DCPSF models in the short run. In the long run bank deposits have a negative and significant relationship in all the four estimated models. This indicates less utilisation of bank deposits for domestic credit to the private sector in the long term.

Pair-wise causality results indicate that for proxy variable, domestic credit to the private sector by banks (DCPSB), there is a bi-directional causality from finance to economic growth and vice versa (Table 9.10). However, the reverse causality from GDP is weak, with significance at 10% level. A one way causality running from GDP to finance is established when the proxy variable is domestic credit to private sector (DCPS), deposit bank money assets, and credit to private sector by financial sector (DCPSF) (see Table 9.6, Table 9.10, Table 9.11 and Table 9.12). Regardless of the proxy indicator used, uni-directional causality from economic growth to finance is observed at 1% level of significance. This result is similar to the results reported by Simwaka et al. (2012), who also found that causality runs from economic growth to finance for Malawi. Uni-directional causality from bank deposits to all the financial sector proxy variables, except domestic credit to private sector by banks, was established. This is evidence that deposit mobilisation granger causes credit to the private sector. Uni-directional causality from broad money to bank deposits is established, regardless of the proxy variable used in the model. This indicates the intermediation role that banks play in channelling mobilised savings to the deficit sectors. Financial deepening, a major development issue, can therefore help enhance domestic savings mobilisation.

Table 9.10 Pairwise Causality for Credit to Private Sector

Null hypothesis	F Statistic	P value
DCPS does not Granger cause interest rate	11.80	0.0027***
Bank deposits does not Granger cause DCPS	16.01	0.0003***
Broad money does not Granger cause DCPS	7.51	0.0233**
GDP does not Granger cause DCPS	20.85	0.0000***
GDP does not Granger cause credit to Government	7.93	0.0195**
GDP does not Granger cause bank deposits	7.40	0.0248**
GDP does not Granger cause inflation rate	12.41	0.0008***
Broad money does not Granger cause bank deposits	16.88	0.0002***
Bank deposits does not Granger cause broad money	9.02	0.0110**
Broad money does not Granger cause inflation rate	18.34	0.0001***

***refers to significance at 1% and ** at 5%.

Table 9.11 Pairwise Causality for Deposit Money Bank Asset

Null hypothesis	F Statistic	P value
DMBA does not granger cause GDP	14.89	0.0006***
DMBA does not granger cause inflation rate	15.11	0.0005***
DMBA does not granger cause credit to Government	16.35	0.0003***
Bank deposits does not Granger cause DMBA	11.84	0.0027***
Broad money does not Granger cause DMBA	13.82	0.0010***
GDP does not Granger cause inflation rate	6.98	0.0305**
Bank deposits does not Granger cause inflation rate	9.39	0.0092***
Broad money does not Granger cause inflation rate	19.17	0.0001***
Credit to Government does not Granger cause inflation rate	10.93	0.0042***
Broad money does not Granger cause bank deposits	12.93	0.0016***
Credit to Government does not Granger cause GDP	8.81	0.0122***

*** refers to significance at 1%; ** significance at 5%

Table 9.12 Pairwise Causality for Private Sector Credit by Financial Sector

Null hypothesis	F Statistic	P value
DCPSF does not Granger cause bank deposits	6.42	0.0404**
Bank deposits does not Granger cause DCPSF	11.78	0.0028***
Broad money does not Granger cause DCPSF	17.66	0.0000***
GDP does not Granger cause DCPSF	15.66	0.0004***
Credit to Government does not Granger cause DCPSF	8.48	0.0144**
Broad money does not Granger cause Bank deposit	21.16	0.0000***
Bank deposit does not Granger cause broad money	9.97	0.0068***
GDP does not Granger cause broad money	6.39	0.0409**
GDP does not Granger cause inflation rate	8.24	0.0162**
Broad money does not Granger cause inflation rate	18.38	0.0004***

*** refers to significance at 1%; ** at 5%

Using domestic credit to private sector by the financial sector (DCPSF), domestic credit to private sector by banks (DCPSB), and deposit money bank assets (DMBA) as a proxy measure, a uni-directional Granger causality for credit to Government and parastatals is observed. The direction of causality runs from credit to Government for DCPSF, while the

opposite is true for DCPSB and DMBA. Contrary to informal beliefs, this gives evidence that it is not only banks who invest in Government securities. Although banks invest mobilised funds in Government securities, they also invest significantly in private sector credit. This is evidenced by the absence of Granger causality between bank deposits and credit to government. However, Granger causality is established for bank deposits in all the four models.

Most but not all granger causality relationships observed in models 1, 2 and 3 are also observed in model 4 (Table 9.12). For example, in the long run GDP has an effect on the four dependent variables. However, for DMBA and DCPSB the relationship is negative because banks do not only invest by extending domestic credit. In the short run, there is no relationship established for GDP, except for DCPSF which indicates a positive and significant relationship at 1% level of significance. This suggests a need to make conclusions on finance and growth causality analysis considering what the proxy actually measures. The dependent variable in model 4 captures all credit provided by the financial sector to various sectors except the government.

Stability tests for models 2, 3 and 4 are presented in Figure 9.6. Visual inspection of CUSUM plots for model 2 indicated some instability. However the Chow test, Zivot-Andrews and Clemente-Meyer was not significant. CUSUM and CUSUMSQ plots for models 3 and 4 indicate stability in parameters.

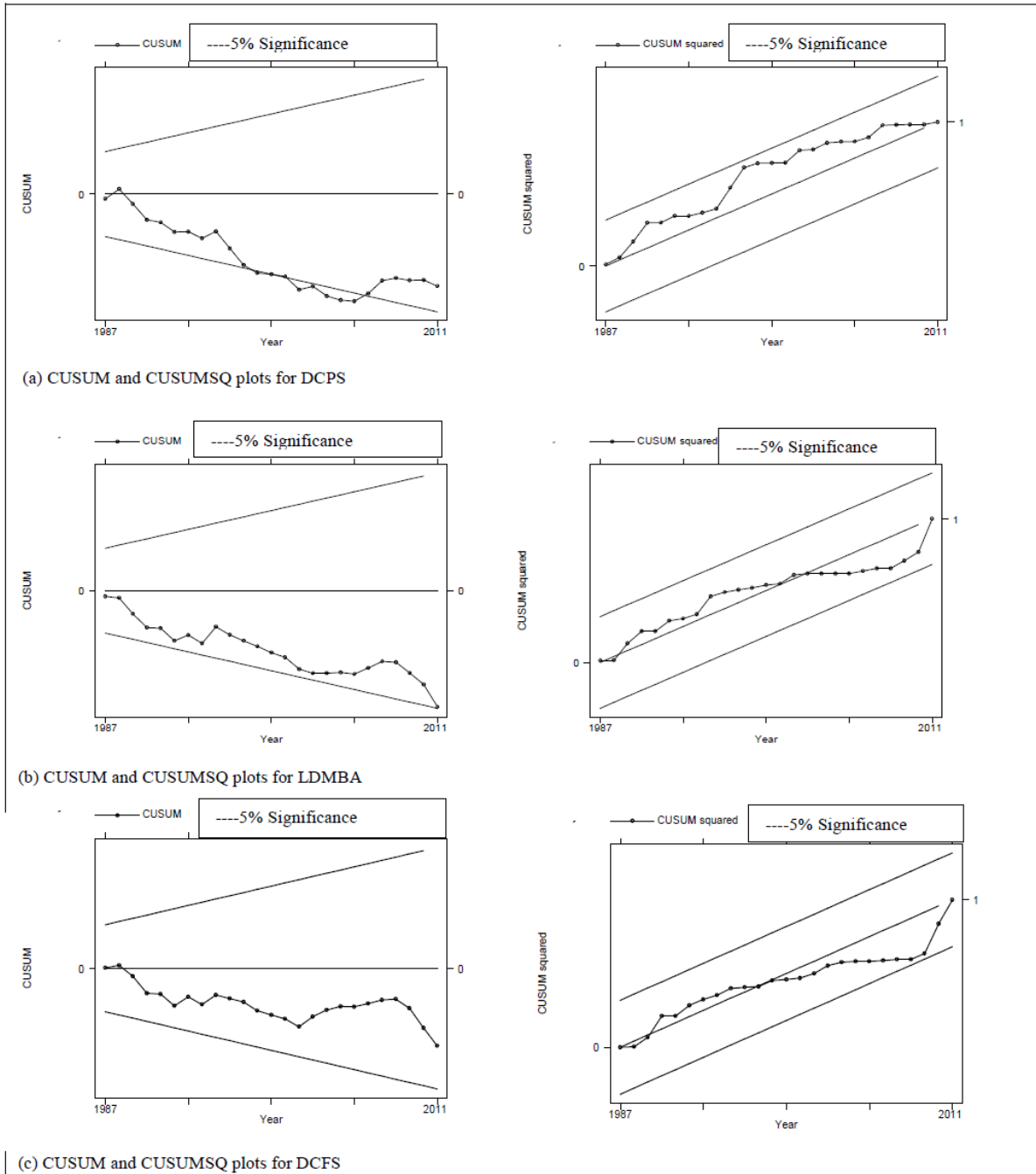


Figure 9.6 Stability Plots for Private Sector Credit, Deposit Assets and Credit by Financial Sector

9.7 Chapter Synthesis

The purpose of this chapter was to provide empirical evidence on the domestic resource mobilisation role of commercial banks, in a developing country. The evidence is established through analysing the effect of bank intermediation and financial sector indicators on domestic credit to the private sector, provided by the banks and other financial institutions.

The discussion on domestic resource mobilisation and the empirical results from this study indicate that there are important effects in both the short run and in the long run. In the long run, there is a negative and significant relationship between bank deposits and credit to the private sector. This indicates that mobilised deposits are not significantly invested in long term credit to the domestic private sector. In the short run, a positive influence of bank deposits on credit to the private sector is established, regardless of proxy variable used.

A granger causality of domestic credit to private sector by banks to GDP provides evidence for the credit channel. In a recent study using Malawi data, Simwaka et al. (2012) concluded that there was causality running from GDP to finance while Ahmed (2010) concluded that a unidirectional Granger causality existed, from financial development to economic growth. This study has concluded that the causality is bi-directional when various indicators are considered. However, the granger causality from economic growth to finance is stronger than the reverse causality. Empirical results on the impact of financial development on economic growth tend to vary with the measures of financial development used and the type of data (panel or annual) used for regression estimation (Allen and Ndikumana, 2000; Kelly and Mavrotas, 2008). This Chapter established that by using different measures of financial development conclusions made on causality of the endogenous variables were, to some extent, different. For example using DCPSB, a bi-directional causality from financial sector development to economic growth, and vice versa is observed. Using DCPS, DMBA and DCPSF, a uni-directional causality from economic growth to finance is established. However, conclusions on some variables, for example bank deposits and broad money, remained the same regardless of the change in the proxy variable. Policy recommendations need to be based on conclusions made from analysing a number of proxy indicators.

Stability checks revealed the presence of structural breaks in the domestic credit to private sector by banks series, which was also confirmed by employing formal statistical tests. However, the break dates did not coincide with the break dates indicated by the stability check tests. Employing estimation methodologies that take into account structural breaks for financial sector and growth indicators, where required, is recommended.

Bank deposits granger causes credit to the private sector, hence, providing evidence that domestic savings mobilisation matter for economic growth, even for less developed countries. Granger causality from broad money to bank deposits implies that deepening the

financial sector would have a positive effect on savings mobilised domestically and hence, credit to the private sector. Absence of Granger causality between bank deposits and credit to Government indicates that although banks invest in Government securities, significant mobilised deposits are used to lend to the private sector. However, the effect is positive in the short run and negative in the long run. Therefore, efforts to mobilise more savings, and encourage banks to lend more to the private sector, especially SMEs should be enhanced. Creating an enabling environment for a better flow of credit information is one way of enabling the savings to have a greater effect on economic growth through credit extended to the private sector. This finding corresponds with Bittencourt (2012), who reported that household consumption in Malawi increased compared to a decline in private credit following liberalisation. Further research to analyse the impact of the recent changes in financial regulatory framework on domestic savings mobilisation and credit to the private sector for Malawi is recommended.

CHAPTER 10 CONCLUSIONS, RECOMMENDATIONS AND IMPLICATIONS FOR FURTHER RESEARCH

This research set out to contribute new insights to the debate on causes of low credit access by SMEs from formal institutions in developing countries. Factors affecting access to credit is an often studied subject, but the topics covered in this thesis are; (1) among the first to explore the role of social capital (as a demand factor), and savings mobilisation (as a supply factor); and (2) this is one of the first studies to analyse the topic in the context of Malawi, a developing country in Sub-Saharan Africa. The analysis was informed using triangulated data, which was collected using semi-structured and structured interview surveys, in depth interviews; and from secondary data sources. This chapter presents an overview of the findings, their implications, and suggestions for further research. A critique of the methodology followed in the chapter is also presented.

The thesis has addressed the following research questions:

- Can social capital improve access to formal credit in developing countries? (*Chapter 5*)
- Are factors hindering access to credit for SMEs perceived differently by lenders and borrowers in Malawi? (*Chapter 6*)
- What factors affect perceptions of SMEs regarding effect of social capital on access to credit from commercial banks in Malawi? (*Chapter 7*)
- Does social capital affect access to credit for SMEs in Malawi? (*Chapter 8*)
- Do savings mobilised domestically affect private credit in Malawi? (*Chapter 9*)

10.1 Overview Conclusions

This research focused on exploring social capital, as a demand factor, and domestic savings mobilisation, as a supply factor, affecting access to credit for SMEs in developing countries. The analysis used data from Malawi to provide research evidence on the effect of these factors. Overall, the thesis concludes that; (1) Social capital eases the information asymmetry problem between lenders and borrowers, and hence affects access to credit; (2) Domestic savings mobilisation affects access to credit by the private sector, and hence matters for development even in developing countries. However, although banks are extending significant credit to the private sector, their efforts would have even greater impact if more

SMEs are also targeted. This could be achieved through improvement in flow of credit information between lenders and borrowers

Demand side: Despite the lack of consensus in the definition of social capital and how it is measured (Halpern, 2005), social capital positively affects economic transactions in the market place (Barr, 2000; Fafchamps, 2004; Lin, 2001; Woolcock, 2001; Fukuyama, 2001; Antoci et al., 2009; Sacconi and Degli, 2011). This effect is more pronounced in the developing country context where education levels are low and law enforcement is weak (Guiso et al., 2004). In developing countries, the operating economic environment for SMEs presents a challenge, for business operators to easily access credit for growth; and an opportunity, for credit providers to offer innovative products to enhance access to credit for entrepreneurs.

Considering the various dimensions of social capital, this research argues that, although banks mostly rely on objective information about a prospective borrower for credit risk assessment, social capital complements the risk assessment process (Chapter 5). Social capital, which mostly reveals subjective information, might help in gathering the remaining required information. This is the information, which is not readily available for objective decision making process. This is the case especially in developing countries, where information asymmetry problems are severe. In such cases, relying only on objective assessments will not contribute positively to enhancing access to credit for SMEs, since most prospective clients are financially excluded.

Apart from broadening outreach strategies and financial literacy programmes, accessing credit also greatly relies on information availability about borrowers. This information can easily be gathered through use of social connections, which is social capital. Social capital can also be a tool for spreading information on the sources of finance (Okten and Osili, 2004). This research suggests that a formal acceptance should be adapted for using a combination of objective and subjective information for credit assessment in formal institutions, especially for first time borrowers. All things being equal, this would pave way for entrepreneurs to use formal credit, which is in turn beneficial for enterprise growth. Since 2013, in Malawi all borrowers from commercial banks are requested to give consent for their credit information to be shared with the recently established credit reference bureaux.

Therefore, as a spill-over effect, in the long term a strategy of using social capital has potential to contribute to building the credit registry.

The research further unveiled details about specific information gaps between lenders and borrowers which potentially contribute to low access to formal credit by SMEs in Malawi (Chapter 6). From a lender's point of view, non-availability of business financial records is the most important hindrance, while from the borrower's point of view lack of collateral and high interest rates are the major hindrances. If borrowers know the value of having up to date records, they can make an effort to keep them. Apart from building capacity as a long-term solution, social connections can be utilised in the shorter term to gather required information to complement credit risk assessments. On the effect of social connections, both entrepreneurs and bank officers perceived that when a person is known personally the likelihood of getting a loan improves positively (Chapter 6.4.3). However the reasons behind such perceptions differed indicating a further gap in information. This gap results in neither party achieving what they want as lenders and borrowers.

Having a bank account indicates the trust that borrowers have in the banking system to handle their finances. However, knowledge-based trust, which develops following experience and behaviour, was low. The level of knowledge-based trust that SMEs have for the banking sector was found to be low. Rule-based trust, which develops following the rules and norms within a society, was found. Of the SMEs surveyed, 98% had a bank account, which concurs with 96% reported by Dermiguc-Kunt and Klapper, (2013). Poor information flow between the lenders and the borrowers played a role, because of a lack of vibrant business networks which fails to deliver value. A comparison of the perceptions regarding effects of social connections on the likelihood of obtaining credit from a commercial bank revealed no differences across the micro, small and medium business categories (Chapter 6.4.4). This finding could be a reflection of adherence to strict standard procedures being employed for all businesses fitting into the SME categories.

The concept of the discouraged borrower suggested by Kon and Storey (2003) indicates that negative experiences impact on borrowers' perceptions and access to credit. In addition to experiences, this research concluded that social capital, education and gender also have an effect on the perceptions that borrowers have regarding effect of social connections on credit access from banks. This indicates the value of social links in information flow (Chapter 7).

However, the negative relationship between the social capital proxy variables (Chapter 7.4.4) and perception could be explained by the low utilisation of business networks. This consequently influences negative perceptions about the benefit of business information-sharing. This knowledge is crucial in formulating strategies to lessen hindrances to credit access. To bring about solutions to credit access problems, this research proposes that an understanding of the opinions, values and social connections of borrowers is necessary, because social links affect level of perceptions in accessing and usage of financial products, including credit (Kostov et al., 2012). The low levels of financial inclusion in Malawi could be explained not only by failure of strategies to broaden access, but also retrogressive perceptions, that users hold, about available financial services.

Perceptions affect usage of financial services offered by banks. An analysis of the effect of social capital on access to credit for Malawi revealed that social capital, as measured by network membership, is a determinant of access to formal credit (Chapter 8). Firm characteristics also have an effect on access to credit but on condition of having a bank account. This implies that financial inclusion can have positive effects on access to formal credit.

While informal connections have the potential to enhance information flow, lacking social connections with bank personnel would contribute to financial exclusion. For Malawi, an example would be people in rural areas who have limited bank presence, because of poor infrastructure. The poor infrastructure contributes to increased transaction costs for service providers, and hence rural people have no chance of building social links with bank personnel. Such people may not have similar opportunities to interact with bank personnel compared with urban dwellers. To worsen this problem further, the low volume of transactions in the rural areas does not always justify the cost for the banks. Despite the possible benefits of business networks, it is worth noting that not all business groupings are active to ensure members reap the benefits.

The findings support Grannovetters' (1955) embeddedness theory by providing evidence that economic phenomenon could be affected through enhanced access to formal finance through interpersonal relationships of actors.

Recommendation: This research proposes strengthening use of established local networks of business associations to act as a centre for business development services. This would create a link with other stakeholder's for example banks. Inclusive development takes place when various actors in the market establish forums through which mutual strategies are identified, and hence social capital can play its role. This proposal presents a low cost model for business information and advisory services for SMEs. Findings of effects of social capital on access to credit begs the question of how such linkages can be harnessed without putting the bank at greater risk of default due to rent-seeking behaviours, for example fraud and corruption.

Supply side: This research established a positive influence on GDP, by domestic credit extended to the private sector, providing evidence for the credit channel. Bank deposits granger causes credit to the private sector, providing evidence that domestic savings mobilisation matters for economic growth even for less developed countries. Bank deposits granger causes broad money. This implies that deepening the financial sector would have a positive effect on both savings mobilised domestically and hence on credit to the private sector, all other things being equal.

Empirical results on the impact of financial development on economic growth tend to vary with measures of financial development used and the type of data (panel or annual) used for regression estimation (Allen and Ndikumana, 2000; Kelly and Mavrotas, 2008). This study established that by using different proxy measures of financial development, conclusions that can be drawn regarding causality results were mixed (Chapter 9). This study concluded that the causality is bi-directional when various indicators are considered, however causality from economic growth to finance was stronger (Chapter 9.6.5). In comparison, using Malawi data, a similar study concluded that there was Granger causality running from economic growth to finance (Simwaka et al., 2012) while Ahmed (2010) concluded that there is a unidirectional Granger causality running from financial development to economic growth for Malawi. Therefore, enhancing economic growth can help improve financial sector development in Malawi. In line with these findings, policy recommendations need to be based on conclusions made by analysing a variety of proxy indicators.

In this study, regardless of the change in the proxy variable, the long run effect of bank deposits and broad money remained the same. A negative relationship exists between bank

deposits and credit to private sector. A granger causality running from bank deposits to credit to the private sector provides evidence that savings mobilisation is a determinant of the supply of credit by financial institutions. Absence of granger causality between credit to Government and bank deposits provides evidence that despite banks investing in government securities, domestic credit to private sector is still significant.

Stability checks revealed the presence of structural breaks in the domestic credit to private sector by banks series, which was also confirmed by employing formal statistical tests. However, the break dates did not coincide with the break dates indicated by the stability check tests.

Recommendation: It is recommended that, increased efforts to mobilise more savings should be encouraged. This would enable the savings to have a greater effect on credit extended to the private sector both in the short and long run. Further research using larger dataset should be carried out employing estimation methodologies that takes into account structural breaks for financial sector and growth indicators. Presence of structural breaks in a series can lead to misleading results (Perron, 1989).

Least developed nations need to start acknowledging the increasing inevitability that their economies should mobilise resources domestically. Such strategies are also supported in literature (Mavrotas, 2008; Mavrotas and Kelly, 2001), due to three major reasons. Firstly, microfinance programmes have demonstrated that poor people can save. Secondly, the global financial crisis demonstrated the negative consequences of developing countries relying heavily on external flows to fund domestic development efforts. Thirdly, research has demonstrated that aid encourages rent seeking behaviours and reduces efforts to mobilise domestic resources. Empirically, this research has demonstrated that savings mobilised domestically in developing countries can have a positive impact on the credit extended to the private sector by the financial sector.

10.2 Implications and Recommendations for Policy and Further Research

The research findings have implications for both providers of credit services and policy makers. Commercial banks operating in developing countries need to acknowledge the need to use other non-traditional methods fitting the local environments to enhance access to credit

for SMEs. Subjective information gathered by loan officers, mostly through social connections, inevitably complements the credit risk assessment process especially for small and medium enterprises operating in developing countries. Therefore use of objective information only in such environments potentially excludes most SMEs from accessing credit from formal institutions. However, an issue arising from such findings is how to formally incorporate information gathered in such a way, while also balancing the negative effects of rent-seeking behaviours, which can put the bank at risk. A possible route would be to strengthen ties with legally established business networking groups to help with disseminating relevant information to both lenders and borrowers through informal social connections. This will also help banks to reduce their transaction costs of having loan officers interact more with individual businesses.

Gaitho (2013) and Sullivan and Sheffrin (2003) have documented that an efficiently working credit reference bureau can tremendously improve credit risk assessment for credit providers. However, the first step in supplying such services is ensuring that a majority of potential clients are registered on the credit database. All eligible borrowers should be registered for maximum effect. Since this service has potential to reduce default risk for lenders, it makes economic sense for lenders to support this initiative through making deliberate efforts to reach out to a number of businesses and individuals, to enable them use formal financial services. With all necessary precautions in place, using social capital to enable first-time borrowers to access credit is recommended, as this will directly feed into building a credit registry database, which can be used for future objective credit risk assessments.

10.2.1 Policy Implications

Efforts to enhance access to credit are being pioneered by lenders along with other financial literacy efforts being championed by development partners and the Government of Malawi. Financial literacy efforts should include topics which tackle value of social links in availing information and opportunities for both lenders and borrowers. Actors would invest in social relations if they perceive to have a high enough expected return, in this case opportunities to ease problem of access to credit. Enhancing use of available networks as business development services centres could be a possible avenue. The designing of the financial sector deepening trust for Malawi needs to incorporate financial literacy programmes at various levels to enhance flow of information.

Efforts to mobilise domestic savings should not only focus on collection of taxes but also on mobilisation of savings through deposit creation by the wider public. This could be achieved by supporting efforts being done by the banking sector, through deliberate policies that help to build capacity of the masses on financial literacy. The more savings are mobilised, the higher the amount of credit is made available for the private sector *ceteris paribus*. However, in reality SMEs face greater hindrances to access the credit due to information asymmetry problems. These problems generate contract enforcement challenges because obligations are hard to verify by the third party. In such environments, personal trust and reputation, which are attributes of social capital, play a significant role in enforcing contracts (Geif, 1993; Fafchamps, 1998; Fafchamps, 2002). A potential channel proposed by this research is through social links between borrowers and lenders, which can be achieved through use of vibrant business networks to minimise costs for credit providers. Policies should encourage businesses to belong to business groupings, which should fundamentally demonstrate benefits for the SME i.e. transfer of information pertinent to the businesses' performance. Business networks help in reducing transaction costs through circulation of information and coordinating punishment of cheaters (Fafchamps, 2004: p.310). In contrast with training and start up support, non-family relationships are important for information sharing in business (Fafchamps, 2004: p.191). Use of social links would also complement financial inclusion efforts, and hence savings mobilisation. Improving information asymmetry problems would also encourage banks to lend more to SMEs, and ultimately economic growth.

10.2.3 Critique and Further Research

This research has contributed to knowledge by demonstrating that social capital and domestic savings mobilisation are determinants of access to credit for SMEs in developing countries. However, the research process was faced with some limitations, most of which relate to data availability. In the MSME survey (see Chapter 6), absence of routinely collected data on social capital for the case-study country necessitated use of cross sectional primary data which brings in limits in the types of analytical techniques that can be employed. Absence of an up to date business registry ruled out use of proportionate sampling techniques in selecting respondents. The researcher's local knowledge helped in selection of areas from which businesses were in turn selected. Respondents were selected randomly from well-established business designated areas in the two cities of Lilongwe and Blantyre. To ensure reliability

and validity of the results standard questions, used to measure social capital in most of this type of studies, were used in the questionnaires. The same questions were also asked in a different survey (see Chapter 8), with bigger sample size, targeted at the same cities with respondents selected using a systematic sampling framework.

Trust is at the root of social connections. Therefore, since questions about social connections seemed close to divulging trust-based dealings, a number of respondents were not comfortable with answering questions about whether they were part of such dealings. However, they were happy to respond on the subject as a third person. The questionnaire therefore contained both direct and indirect questions to capture social capital proxy attributes.

The other limitation pertained to the unavailability of time series macroeconomic data. The target for the analysis was to test Granger causality between savings mobilised domestically and credit extended to small and medium enterprises. However, due to lack of SME segregated macroeconomic data, credit extended to the private sector was used as a proxy for credit to SMEs because SMEs are included in the private sector. Assuming data availability, comparing results with similar analysis but employing structural breaks techniques would be interesting because the economic environment of Malawi is volatile. Revelations of the positive effect of domestic savings on private credit calls for further research on what determines savings in the economy of Malawi. A recently established Pensions Act (2010) has introduced mandatory pension savings, which has a potential to boost domestic savings mobilisation. An interesting area to explore is the impact such changes will have on credit to the private sector, and ultimately on economic growth.

Further questions of research interest arising from this research pertain to social capital. Firstly, demonstrating linkage between social capital and access to credit is one thing but the question of how such linkages are applied in reality is worth investigating. Specifically, evidence on the effectiveness of business networks in enhancing flow of information between bankers and borrowers would provide good evidence for policy making. A qualitative and quantitative evaluation of the SQL loan facility initiated by Standard Bank would be a potential starting point. A social institutional analysis is recommended to identify and analyse the status of interrelationships among the stakeholders.

Despite shortcomings, most of which can be improved on in further research, this thesis has made a significant contribution in the area of development finance. This contribution is in terms of its focus on statistically backed evidence of the potential of social capital and savings mobilisation in enhancing access to formal credit for SMEs in developing countries. Considering the contribution that SMEs make to poverty reduction and economic development in least developed countries, continued experimentation and exploration into the factors that can enhance access to credit, a major barrier to development, is still desirable and important.

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APPENDICES

Appendix A1 Micro Small and Medium Enterprises Questionnaire

IMPROVING ACCESS TO FORMAL CREDIT FOR SMALL AND MEDIUM ENTERPRISES. **ENTERPRISE ASSESSMENT QUESTIONNAIRE [To be administered to the business owner or manager]**

Good morning/afternoon. My name is _____. We are currently doing a survey on **Access to financial services for small and medium enterprises**, commissioned by Bunda College, LUANAR and Aberystwyth University. A total of 120 enterprises within Lilongwe and Blantyre districts will be surveyed. Your enterprise was selected randomly. The information collected will be strictly confidential and will only be used for the purposes of the study. The information will help the financial providers and policy makers to understand how social capital can help with accessing credit. I would like to thank you for accepting to be interviewed.

I am going to ask you questions relating to how your business started, how it has grown and sources of funds used for the growth and how management relates with other institutions socially for the benefit of the business. Feel free to ask any question or clarification at any point during the interview

A-: SURVEY STAFF DETAILS	
A1. NAME OF ENUMERATOR:	DATA VALIDATED BY:
A2. DATE OF INTERVIEW:	DATE OF DATA VALIDATION:
A3. NAME OF FIELD SUPERVISOR:	
2. QUESTIONNAIRE NUMBER	
3. NAME OF DATA ENTRY PERSONNEL:	

SECTION 1: BUSINESS ESTABLISHMENT AND ACTIVITIES

1. When was the business established? _____
2. Is the business registered 1. Yes, Year _____ 2. No
3. Describe the main type of activity of your business? (in terms of volume of services rendered for the last calendar year)

4. Main field of activity. (Interviewer, from the business description above, classify the business into categories).

Field of activity	Code
Agriculture, forestry and fishing	1
Mining and quarrying	2.
Manufacturing	3
Electricity, gas, refrigeration and air conditioning supply	4
Construction	5
Wholesale and Retail Trade	6
Repair of Motor vehicles and motor cycles	7
Transportation and storage	8
Accommodation and food services	9
Information and Communication	10
Education	11
Arts, Entertainment and Recreation	12
Real Estate	13
Professional, Scientific, Administrative and support	14
Insurance	15
Other	
Financial services	→ End the interview

5. How many people are employed in your business? (Interviewer should explain that this is to be used for purposes of categorizing the business into small, medium or large)?

Number of permanent employees	Number of seasonal or /part-timers	Total number(add after interview)

6. Please, classify the enterprise? (Interviewer use the answer to question 5 to classify)

Type of company	Code	Step
Small (1 – 20 employees)	1	→ Continue the interview
Medium (21 – 99 employees)	2	→ Continue the interview
Large enterprises (100 and above)	3	→ Discontinue interview
Representative office	4	→ Discontinue interview
Other (specify) “_____”	5	→ Discontinue interview

7. What is the legal status of the enterprise?

Legal status	Code
Publicly listed company	1
Limited Liability Company	2
Partnership	3
Sole proprietorship	4
Cooperative	5
Other (specify) _____	6

8. What is the ownership structure of your enterprise at the moment? (If % ownership not given indicate code 98 or 99 if do not want to answer)

Ownership Structure	Code	Per cent Ownership
Individual person or family	1	
Several individual persons	2	
Domestic company	3	
Foreign company	4	
Government	5	

9. Has ownership structure or form changed since establishment 1= Yes 2= No
 10. If Yes how?
-

SECTION 2: INFORMATION ABOUT THE BUSINESS OWNERS – I will now ask you a few questions relating to the businesses top management

11. Are you responsible for making finance? If not, questions following relate to the person responsible for making financial decisions.
 12. What is the title of this top executive?

Position	Code
Chief Executive	1
Director (non-founder)	2
Founder – individual person	3
Executive of superior legal entity / ministry or department	4
Founder combines the functions of Director	5
Other “specify” “ ”	

13. What is the exact or approximate age of the top executive?

YEARS	GROUPED YEARS(If respondent not free to give exact age)
	1 = 18 – 25
	2 = 26 – 30
	3 = 31 – 35
	4 = 36 - 40
	5 = 41 - 45
	6. = 46 – 50
	7 = 51 – 55
	8 = 56 - 60
	9 = 61 or over

14. Please specify the sex of your top executive

Sex	Encoding
Male	1
Female	2

15. Please indicate the highest educational level of the top executive.

Type of education	Code
Primary education (up to standard 8)	1
Secondary education (form 1 to 4)	2
Secondary education (form 2 to 4)	3
Vocational training	4
Some college or university training(certificate, Diploma,)	5
Graduate degree (Domestic University)	6
Graduate degree (Foreign University)	7

	Major problem	Small problem	We do not have such a problem	This does not concern us
10. Other (specify) “ ”	1	2	4	99

21. How many banks do you bank with?

Number/ Name of banks	Length of relationship	Distance to the bank(walking time)

22. Is there a specific reason why you chose to bank with them?

SECTION IV. SOURCES OF FUNDING- I am now going to ask you questions relating to the businesses sources of funds initially, additional funding after establishment and future plans.

23. What were the main sources of initial capital, through which this enterprise was established, growing and future plans. Several answers can be selected.

Source of funding 1=Commercial banks 2= Credit union 3=Microfinance Institution 4=Money lenders (Katapila) 5= Public Funds 6=Individual person with interest 7= friends/acquaintance without interest 8=Family members 9= Own savings 10= supplier credit 11= profits from business 12=Other(Specify)	What was source of initial capital	How much?	Did you invest additional funds since establishment 1=yes 2=No	Source of additional investment	Use of funds 1= Startup capital 2= Increase of working capital 3= Acquisition of fixed assets 4= To pay existing debts	Has your business got any growth plans? 1=Yes 2=No	Where do you plan to source funds for your growth plans	Given a chance approximately how much would you want to get to finance the growth?	If you don't manage to funds from the chosen sources the business plans be abandoned

24. If you have never applied for a loan the past 5 years what was the reason why you did not apply for

No.	Reason
1	
2	
3	

25. In general how would you describe your access to financial resources for business from the following sources?
(Show card B)

	Very easy to obtain a credit	Easy to obtain a credit	Difficult to obtain a credit	Very difficult to obtain a credit	Difficult to answer	Reason
Commercial banks	1	2	3	4	99	
Credit union	1	2	3	4	99	
Microfinance Institution	1	2	3	4	99	
Money lenders (Katapila)	1	2	3	4	99	
Public Funds	1	2	3	4	99	
Friends/acquaintance without interest	1	2	3	4	99	
Family members	1	2	3	4	99	
Friends/acquaintance without interest	1	2	3	4	99	
	1	2	3	4	99	

26. Thinking about actual and future loans what factors have affected your access to loans?

27. What do you feel you need to do or have in order to be able to easily access loans from a bank

SECTION V. SOCIAL NETWORKS AND INTERRELATIONSHIPS – In this last section I am going to ask about social interactions of management as they relate to the business.

28. Are you or your business a member to a social networking gathering, group or club which helps you be able to get business opportunities

1= Yes, Specify group/club name _____
2. = No

29. Does belonging to this gathering/group/club help your business have access to any of the following

Service	Specify how?
Credit	

Contracts	
Training	
Other	

30. Are you involved in any (formal or informal) activities which enable you to interact with bankers (lenders)? 1= Yes 2=No

31. How likely is it for you to get a loan from a bank if you know the credit officer or any bank officer personally?
a. Most likely
b. Very likely
c. Likely
d. Maybe
e. Never

32. Please explain your answer in question 31.

33. Please rate the following statements on a scale of 1 to 3 to assess how social connections affect lending decision where -3 = Never, -2= very unlikely, -1 = unlikely 0= no effect, 1=likely, 2=very likely, 3= always

Statement	Rating
A friend applicant is more likely to get a loan	-3 -2 -1 0 1 2 3
An acquaintance applicant is more likely to get a loan	-3 -2 -1 0 1 2 3
A government official applicant is more likely to get a loan	-3 -2 -1 0 1 2 3
A family relation applicant is more likely to get a loan	-3 -2 -1 0 1 2 3
Knowing an applicant personally influences the lending decision positively	-3 -2 -1 0 1 2 3
Businesses often offer gifts to influence outcome of loan application	-3 -2 -1 0 1 2 3
Businesses offer joint investment opportunities that influence outcome of application	-3 -2 -1 0 1 2 3

34. From your point of view, please rate if you agree or disagree with the following sentences to do with business men/women in in your sector of work.

Statement	Agree	Strongly agree	Disagree	Strongly disagree	Difficult to tell
Most Malawian business people in my line of business can be trusted to work together with.	1	2	3	4	5
Most foreign business people can be trusted to work together with	1	2	3	4	5
Most businesses easily borrow money for investment from one another than from a bank	1	2	3	4	5

35. Please comment on your answers to question 34 above where possible?

36. Entrepreneurs sometimes have to make gifts or informal payments to officials in order to access resources or opportunities etc. Have you ever had to make informal payments or gifts to financiers?

Answer	Code
Yes	1
No	2
I cannot answer this question	3

37. Do you trust that the banks act in your best interest of your business? 1=yes 2=No

38. What would you want the banks to change to enable you as a business person able to easily get credit from them?

39. Do you have any other comments pertaining to what we have discussed that you might want to add?

THANK YOU FOR THE INTERVIEW!!!

Appendix A2 Commercial Bank Interview Guide

SOCIAL CONNECTIONS AND SMALL AND MEDIUM ENTREPRISES ACCESS TO FORMAL CREDIT INTERVIEW GUIDE

A. COVERAGE

1. Describe your role played in credit the process _____

2. Years of experience _____

3. What type of an institution is it

- i. Commercial Bank
- ii. Microfinance Institution

4. Number of operating branches

Type	Number	Location (Districts)
Branch		
Kiosk		
Mobile branch		

B. LENDING BEHAVIOUR (reference to past 5 years or less)

1. How do you define SMEs in your bank and are there differences in lending volumes among the different sizes?

Type	Definition	Average yearly Lending volumes (past 5 year)			
		2012/13	2011/12	2010/11	2009/10

2. Do lending volumes differ by sector? Please provide details

3. Are there seasonal trends in lending by sector or size and why?

4. What is your annual lending volumes for the bank(overall picture for past five years)

Year	Total amount to private sector
2012/13	
2011/12	
2010/11	
2009/10	

C. FACTORS AFFECTING LENDING

1. Does the bank have specific guidelines for lending or it is done adhoc?

- i. Yes
- ii. No, done adhoc

2. What are the guidelines that direct the lending process (Interviewer note how all the types of capital are captured (economic/ human /social) in the guidelines) – ask for documents if possible.

3. From the guidelines stated which factors are considered

Factor	Weighting 1= Primary 2= Secondary 3=Not Considered

4. Can you talk us through a credit process for a case that you have come across that was

- i. Successful _____

- ii. Borderline _____

- iii. Unsuccessful _____

D. UNOFFICIAL /SOCIAL FACTORS AFFECTING LENDING DECISIONS (use of friends/acquaintances/relatives/Government)

Please rate the following statements on a scale of 1 to 3 to assess how social connections affect lending decision

Statement	Rating
A friend applicant is more likely to get a loan	-3 -2 -1 0 1 2 3
An acquaintance applicant is more likely to get a loan	-3 -2 -1 0 1 2 3
A government official applicant is more likely to get a loan	-3 -2 -1 0 1 2 3
A family relation applicant is more likely to get a loan	-3 -2 -1 0 1 2 3
Knowing an applicant personally influences the lending decision positively	-3 -2 -1 0 1 2 3
Businesses often offer gifts to influence outcome of loan application	-3 -2 -1 0 1 2 3
Businesses offer joint investment opportunities that influence outcome of application	-3 -2 -1 0 1 2 3

- 1. If a business person openly offers a gift does that influence the decision on their application
 - i. Yes, negatively
 - ii. Yes Positively
 - iii. No influence

2. From _____ question _____, _____ explain _____ how?

3. Are there any other ways how businesses influence lending decision on their application.

E. LENDERS SOCIAL CAPITAL

1. As a lender (Institution), do you join any networks to enhance your access to potential clients?

i. Yes, Name them _____

ii. No

2. What other activities(socially) does the bank do to facilitate getting clients

Activity	Frequency in a year	Does the activity help 1=yes, 2= No	Comment

3. As a lender (individual) what social / networks are you involved in that may lead to business opportunities in your role.

4. Are there any elements in the lending guidelines that businesses find hard to meet to get a loan?

5. In your opinion what would you advise businesses to do to enhance their access to credit?

END OF INTERVIEW. THANK YOU

Appendix B1 Business Registration Impact Evaluation – Malawi

The Business Impact Evaluation study evaluates the impact of formalization—through business registration, tax registration, and business savings accounts—on enterprise performance. The project which is coordinated by Innovations for Poverty Action³⁶ (IPA) in partnership with Government of Malawi and the World Bank participants consist of 3,000 informal MSMEs located in Blantyre and Lilongwe, the major commercial cities in Malawi. This study - denominated Business Registration Impact Evaluation (BRIE) - is a randomized controlled trial that aims at estimating the impact of business registration for MSMEs in Malawi. It also examines the complementary value of business bank accounts as a means for separating firm and household finances. The study is being conducted over a four year period.

The research study has four experimental groups, including a control group³⁷ (see figure A1). In order to test the impact of business registration on business performance, informal firms were randomly assigned to *costless registration* with either just the Department of Registrar's General (DRG) (750 firms) or to both the DRG and Malawian Tax Authority (300 firms). In order to assess the complementary value of separating household finance from business finance, a random subsample (1,200 firms)³⁸ was also invited to an information session promoted by a local private bank on business bank accounts. Contrary to general financial literacy programs, this intervention is targeted at very specific needs of firms in their management of working capital, in mentally separating household from business money, and in their relation to financial partners, which may have clear benefits in enterprise development.

Sampling

In this study, the target is the informal MSMEs that could potentially benefit the most from business registration and that the government has indicated would be their first group of interest for a future road-show on business registration. The target firms are located in urban Lilongwe and Blantyre, the major commercial cities in the country. At the end of 2011, over hundred business centres were listed, which included concentrations of firms including industrial parks, markets, streets with shops, set of workshops, etc. 46 of these business centres were randomly sampled (23 in each city), to list all businesses operating in these areas. 7,603 enterprises were listed through this process, 85% of which were not registered at DRG (similar proportion in Blantyre and Lilongwe despite the location of the DRG in Blantyre).

For male and female-owned businesses separately, we then used a similar set of criteria, including the number of employees of the firm, the physical location (if the firm operates in a fixed location) and the size of the firm (measured in revenues) to sample approximately three thousand enterprises to be part of the study. We targeted this number of firms to ensure having enough power for detecting impacts on the main outcomes of interest, while keeping financial costs of the study under budget. A pre-pilot allowed estimating the power calculations incorporating a non-full compliance scenario. In terms of firms that were sampled for the study, it is accepted that firms with more structure/size are more likely to use the potential benefits of business registration. Therefore, male and female-owned firms that complied with those characteristics and that were at the same time still informal were targeted.

In December 2011 to April 2012, a detailed baseline survey on the sampled 3,002 firms – 1,195 female-owned - was conducted, to elicit information on characteristics of the firm and entrepreneur, usage of financial services and finance, financial literacy, knowledge about the business registration process, performance metrics, employment, investment, harassment levels, etc.

³⁶ <http://www.poverty-action.org/project/0433>

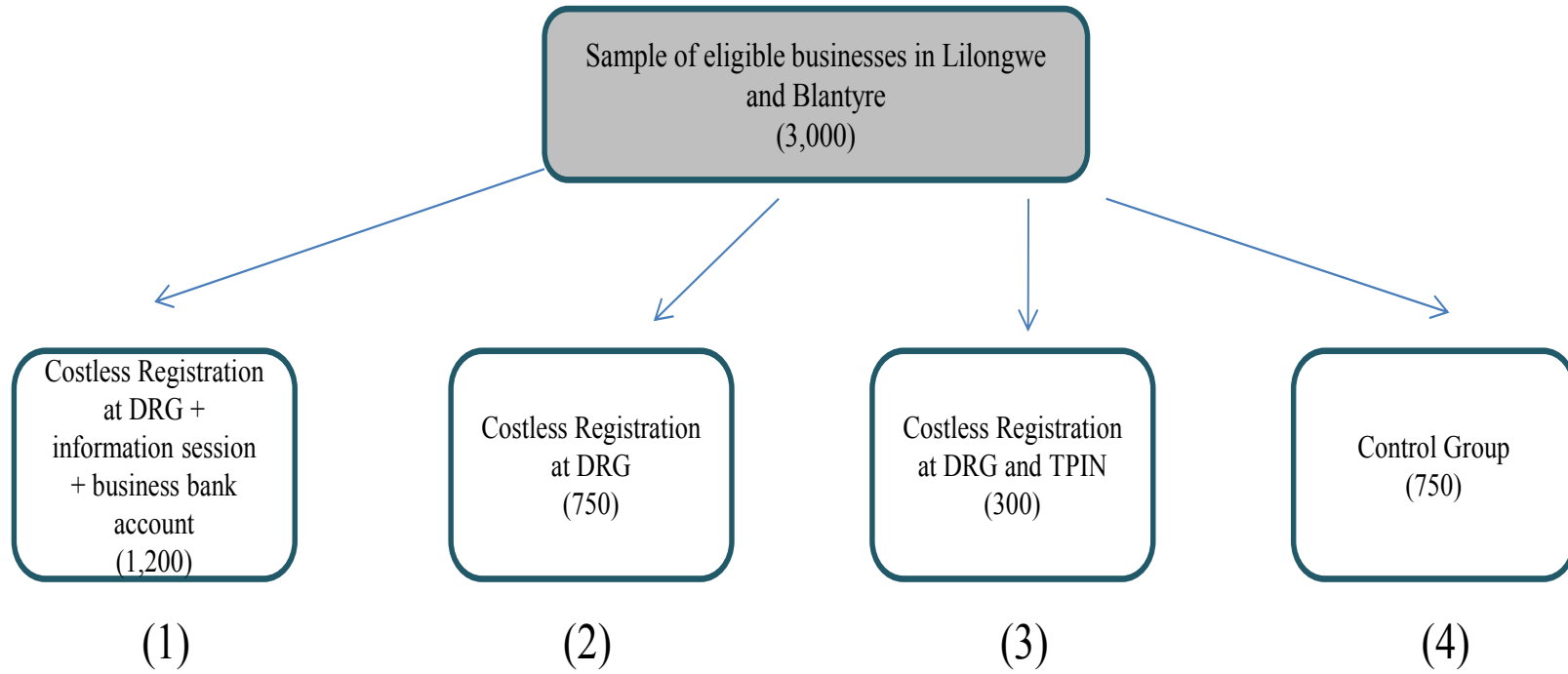
³⁷ The data used in this research is from the control group to avoid the impact of the other project interventions on this analysis.

³⁸ The groups are unbalanced in size for two reasons: the benefits from business registration are mostly associated with the DRG registration. We are interested in testing the additional value of tax registration but do not want to reduce the statistical power in detecting low effects of the business registration alone. The larger group for registration plus information sessions takes into account take-up rates and the demand from the partner private bank in offering services to a high number of firms.

Firms interviewed at baseline were stratified on the following five measures: *gender*; *location*³⁹ (Blantyre, Lilongwe); *sector* (commerce, services, and manufacturing); *business owner being able to identify benefits of business registration* (binary variable); and *high capture* (this binary variable is similar to Fafchamps et al., (2010) and takes the value of 1 if the respondent agrees with the following two statements: “whenever I have money on hand, my spouse or other family members always end up requesting some of it”, and “people who do well in their business here are likely to receive additional requests from family and friends for money to help out with some expense or another”). Thereafter, within each stratum, the sample was randomly assigned to either one of the three treatment arms or to the control group.

³⁹ Given that the DRG was located only in Blantyre, including firms from Lilongwe in our sample and using location as a strata in the randomization help assess whether informal firms closer to the Registrar’s office are different than those more distant (and whether impacts are different), as well as assess whether distance matters as a factor explaining different takes-up of business registration when support is provided.

Figure A1: Impact evaluation design



Appendix B2 Enterprise Midline Survey Questionnaire

MALAWI ENTERPRISE MIDLINE SURVEY II

Hello, my name is _____ and I am a researcher for Innovations for Poverty Action, a non-profit organization dedicated to finding innovative solutions to development issues in various countries. We have been working in Malawi since 2008. I am visiting you today because we are conducting a study about Small Businesses in Malawi. We already visited you twice before, including approximately 9 months ago, and we are here today to ask you few other questions about you and your business. We will return in 6 months or so to ask you similar questions. / *Moni, dzina langa ndine ndipo ndine wakafukufuku ku Innovations for Poverty Action, bungwe lomwe siligwira ntchito yopeza phindu komanso si la boma lomwe ntchito yake ndi kupeza njira zatsopano zothetsela mavuto a zitukuko m'maiko osiyanasiyana. Tikugwira ntchito muno m'Malawi kuyambira chaka cha 2008. Ndakuyendelani lero chifukwa tikupanga kafukufuku wa mabizinesi ang'onoang'ono muno m'Malawi. Tinakumanapo nanu kale pafupifupi miyezi isanu ndi inayi yapitayo ndipo ndabwera lero pano mafunso ena angapo pang'ono okhuzana ndi bizinesi yanu. Tidzabweranso miyezi isanu ndi umodzi ikubwerayo kudzakufunsani mafunso okhala ngati omwewa.*

1. Were you interviewed by me or a colleague of mine about 9-12 months ago? / **kodi munachezapo nane kapena mzanga miyezi isanu ndi inayi yapitayo?**

Yes SKIP TO REST OF CONSENT No

2. Was your business partner interviewed by us about 9 -12months ago? / **Kodi anzanu/akunyumba kwana anachezapo naye miyezi isanu ndi inayi yapitayo?**

Yes Ask to speak to the same person interviewed 9-12 months ago
 No Revert back to the supervisor for instructions on how to proceed

The purpose of this survey is to better understand characteristics of small and medium businesses in Malawi, and also to learn relevant information about entrepreneurs who own their own businesses. This will help inform policies and programs directed at small and medium businesses like yours.

/ *Cholinga cha kafukufuku ameneyu ndi kufuna kumvetsetsa bwino za kayendetsedwe ka bizinesi za zing'ono ndi zokulilapo m'Malawi, ndiponso kuphunzirapo mfundo zoyenelera za anthu ochita malonda amene ali ndi bizinesi zawozawo. Izi zithandiza kudziwa kayendetsedwe ndi zochitika zomwe zinaikidwa ku bizinesi zazing'ono ndi zokulilapo ngati zanu.*

If you choose to participate, you'll help complete a short survey that will take approximately 1 hour. The survey will cover topics such as operation of your business, current tools used in the business, performance, loans, bank accounts, etc./ *Ngati mutasankha kutenga nawo mbali, muthandiza kumalizitsa kafukufuku wochepera amene atenge pafupifupi mphindi ola imotzi. Kafukufukuyu aonanso mbali za kayendedwe ndi zochitika mu bizinesi, zipangizo zomwe mukugwiritsa ntchito ku bizinesi pakali pano, mmene ikuyendela, ngongole, mabuku a ku banki ndi zina zotero.*

To compensate for your time, we will give you a small gift (a bar of soap). *Mokupepetsani chifukwa cha nthawi yanu, tikupatsani ka mphatso kakang'ono (mtanda wa sopo)*

You should know that all businesses visited by us will not be identified in any document resulting from this survey. All the information that you provide will remain fully confidential and no one will be able to link your names to your responses. / *Dziwani kuti bizinesi zonse zimene ife taziwendela sizizatchulidwa kapena kuikidwa pa pepala lirilonse la zotsatila za kafukufukuyu. Zimene mungayankhule pano zizakhala za chinsinsi ndipo palibe amene angazakwanitse kulumikiza dzina lanu ndi mayankho anu.*

You can interrupt the interview any time for any reason and this will not have any negative consequences. You can contact the phone numbers below for further questions.

Mukhonza kudukiza/kuyimitsa kucheza nathawi ina iliyonse pa zifukwa zina zilizonse ndipo izi sizizabweretsa zotsatila zoipa ku mchitidwewo. Mukhonza kuimba ma foni nambala ali mmusi wa ngati pali mafunso ena.

Billiat Kunje, Field Manager.

Jessica Baumgardner-Zuzik, Field Coordinator.

Do you have any question?/*Muli ndi funso lina liri lonse?*

If I have answered all your questions, do you agree to participate in this study? / *Ngati ndayankha mafunso anu onse, mukuvomereza kutenga nawo mbali pa kafukufukuyi?*

SECTION A. CONFIRMATION TO BE IN RIGHT PLACE - CONTACT DETAILS OF BUSINESS OWNER

Please administer this survey to the **BUSINESS OWNER** of the identified firm as per the list provided with the IDs. [Q1-Q5 needs to be confirmed with **BUSINESS OWNER** (to ensure we are the right place)].

S1q3_b. Gender:	<input type="checkbox"/> Female	<input type="checkbox"/> Male	S1q4_b. Age [in completed years]:	<input type="checkbox"/>	<input type="checkbox"/>
S1q5a. Marital Status:	<input type="checkbox"/> Married monogamously / living with partner		<input type="checkbox"/> Married Polygamously		
	Divorced / seperated				
	<input type="checkbox"/> Widow / widower	<input type="checkbox"/> Never married / never lived with partner			

S14q5	What is the highest grade that you have completed? / <i>Kusukulu munalekeza kalasi yanji?</i>	<input type="checkbox"/> <input type="checkbox"/>
	<i>Nursery=1</i>	
	<i>Not completed Standard 1=2</i>	
	<i>Completed Standard 1=3</i>	
	<i>Completed Standard 2=4</i>	
	<i>Completed Standard 3=5</i>	
	<i>Completed Standard 4=6</i>	
	<i>Completed Standard 5=7</i>	
	<i>Completed Standard 6=8</i>	
	<i>Completed Standard 7=9</i>	
	<i>Completed Standard 8=10</i>	
	<i>Completed Form 1=11</i>	
	<i>Completed Form 2=12</i>	
	<i>Completed Form 3=13</i>	
	<i>Completed Form 4=14</i>	
<i>Adult Vocational=15</i>		
<i>Completed diploma/ degree and above=16</i>		
<i>Don't Know=99</i>		

S1q9. Number of business owners:	<input type="checkbox"/>	<input type="checkbox"/>
---	--------------------------	--------------------------

City. Lilongwe or Blantyre

SECTION 1: INFORMATION ON BUSINESS OPERATION

S2q4	What year did this business first start? / <i>Bizinesi imeneyi inayamba mchaka chanji?</i>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
S1q1	Are you still operating the business that you had when we first interviewed you around December 2011–April 2012?/ <i>Kodi mudakali kupanga bizinesi yomwe munali nayo ulendo oyamba tinadzacheza nanu pakati pa mwezi wa December 2011- April 2012?</i> 1=Yes <input type="checkbox"/> If YES, go to Section 2 2=No	<input type="checkbox"/>
S1q2	When did you stop operating this business? Specify month. This should be in 2011, 2012 or 2013. / <i>Ndiliti lomwe munasiya kuyendetsa bizinesi imeneyi? Funsani mwezi. Izi zikhale mu 2011, 2012 kapena 2013</i>	MM/YYYY <input type="text"/> <input type="text"/> / <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

SECTION 2. INFORMATION ABOUT TIME DEDICATED TO BUSINESS

S2q1	What does this business do?/ <i>Kwenikweni bizinesi yanu mumatani/ mumapanga chiyani?</i> If firm operates in more than one sector, please indicate the sector that contributes the most for the profits of the business	<input type="text"/> <input type="text"/> <input type="text"/>
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SECTION 4. CREDIT

S4q1	[Ask this question if has spouse/living with partner] There are many ways people borrow money. Have you borrowed <u>for your business</u> in the past 6 months from your spouse? <i>/ Pali njira zambiri zomwe munthu angathe kubwereka ndalama. Munayamba mwabwereka ndalama za bizinesi yanu kwa akunyumba kwanu pa miyezi isanu ndi umodzi yapitayo?</i> Yes=1 No=2 Not applicable (No spouse)=98	<input type="text"/> <input type="text"/>
S4q2	Have you borrowed <u>for your business</u> in the past 6 months from any other family member or a friend? / <i>Mwangongolapo ndalama za bizinesi yanu kwa achibale anu kapena anzanu mu miyezi isanu ndi umodzi yapitayo?</i> Yes=1 No=2	<input type="checkbox"/>
S4q3	Have you borrowed <u>for your business</u> in the past 6 months from another business? / <i>Mwangongolapo ndalama za bizinesi yanu pa miyezi isanu ndi umodzi yapitayo kuchokera ku bizinesi ina?</i> Yes=1 No=2	<input type="checkbox"/>

S4q6_baseline	<p>Have you borrowed <u>for your business</u> in the past from a microfinance institution? /<i>munayamba mwangongola ndalama za bizinesi ku mabungwe ang'onoang'ono obwereketsa ndalama?</i></p> <p><i>Yes=1; No=2</i></p>	<input type="checkbox"/>
S4q4	<p>Have you borrowed <u>for your business</u> in the past 6 months from a microfinance institution? /<i>Mwangongolapo ndalama za bizinesi yanu mu miyezi isanu ndi umodzi yapitayo ku mabungwe-obwereketsa ndalama?</i></p> <p>Yes=1 No=2</p>	<input type="checkbox"/>
S4q7_baseline	<p>Have you borrowed <u>for your business</u> in the past from a bank? / <i>munayamba mwangongola ndalama za bizinesi ku banki?</i></p> <p><i>Yes=1; No=2</i></p>	<input type="checkbox"/>
S4q5	<p>Have you borrowed <u>for your business</u> in the past 6 months from a bank? / <i>Mwangongolapo ndalama za bizinesi mu miyezi isanu ndi umodzi yapitayo kuchokera ku banki?</i></p> <p>Yes=1 No=2 → skip to Q7</p>	<input type="checkbox"/>
S4q8_baseline	<p>Have you borrowed <u>for your business</u> in the past from any other source? Which?/ <i>munayamba mwangongola ndalama za bizinesi kwina kulikonse? Kuti?</i></p> <p>List up to 2 sources in order of importance (size of loan).</p> <p><i>Moneylender=1</i></p> <p><i>Non-relative (individual)=2</i></p> <p><i>Government / government agency=3</i></p> <p><i>Religious group / charity=4</i></p> <p><i>Cooperative / business association=5</i></p> <p><i>Supplier / retailer/ local store=6</i></p> <p><i>Savings and Credit Cooperative (SACCO)=7</i></p> <p><i>Rotating Savings and Credit Association (ROSCA)=8</i></p> <p><i>Other=96, Specify</i></p> <p>Business didn't borrow in the past 6 months from any other source=98</p>	<div style="text-align: center;"> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> <p>Specify for</p> <p>Other:.....</p>

S4q7	Have you borrowed for your business in the past 6 months from any other source? Which?/ <i>Mwangongolapo ndalama za bizinesi yanu mu miyezi isanu ndi umodzi yapitayo kuchokera kwina kuli konse? Kuti?</i>	<div style="text-align: center;"> <input type="checkbox"/><input type="checkbox"/> <input type="checkbox"/><input type="checkbox"/> </div> <p style="text-align: center;">Specify for</p> <p>Other:.....</p>
	List up to 2 sources in order of importance (size of loan).	
	<i>Moneylender=1</i>	
	<i>Non-relative (individual)=2</i>	
	<i>Government / government agency=3</i>	
	<i>Religious group / charity=4</i>	
	<i>Cooperative / business association=5</i>	
	<i>Supplier / retailer/ local store=6</i>	
	<i>Savings and Credit Cooperative (SACCO)=7</i>	
	<i>Rotating Savings and Credit Association (ROSCA)=8</i>	
<i>Other=9, Specify</i>		
<i>Business didn't borrow in the past from any other source=98</i>		
S4q11_baseline	When did you borrow the most recent time? / <i>Mwangongolapo liti posachedwapa? Record month and year.</i>	<input type="checkbox"/> <input type="checkbox"/> / <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

SECTION 5. SAVINGS

	<p>S5q4.Do you have access to money deposited in an [account]?/ <i>Muli ndi mwayi otenga ndalama zomwe mwasungitsa ku [akaunti]?</i></p> <p><i>Yes=1</i> <i>No=2</i> <input type="checkbox"/> Next account</p>
Bank account in the name of the business	<input type="checkbox"/>
Checking / Current bank account (NOT in the name of business)	<input type="checkbox"/>
Savings bank account (NOT in the name of business)	<input type="checkbox"/>
Loan account (NOT in the name of business)	<input type="checkbox"/>

SECTION 6. REGISTRATION

S6q2	Does your business have a Business Registration Certificate, meaning, is your business registered?/ <i>Kodi bizinesi yanu ili ndi chiphaso cha mu kaundula, kutanthauza,kodi bizinesi yanu inalembetsedwa mu kaundula?</i>	<input type="checkbox"/> <input type="checkbox"/>
	Politely request to see the Business Registration Certificate.	
	<i>Yes and show certificate=1</i>	
	<i>Yes, but doesn't show the certificate=2</i>	
	<i>No=3</i> → Go to Q7	
	<i>No, I have requested and submitted all the papers but still waiting for the certificate=4</i> → Go to Q6	
<i>Don't know=99</i> → Go to Q7		

S6q12	During the past 6 months, has your business received an inspection from any of the following?/ <i>Miyezi isanu ndi umodzi yapitayi, kodi bizinesi yanu yalandilapo oyang'anira kuchokera ku?</i>	
	Read out all types of inspectors Yes=1 No=2 Don't know=99	
	City council / municipality inspector/ <i>woyendera wochokera ku khonsolo ya mzinda</i>	<input type="checkbox"/> <input type="checkbox"/>
	Ministry of Industry and Trade inspector/ <i>woyendera wochokera ku unduna wazamalonda</i>	<input type="checkbox"/> <input type="checkbox"/>
	Taxes inspector/ <i>wokhometsa msonkho</i>	<input type="checkbox"/> <input type="checkbox"/>
	Labor inspector/ <i>woyang'anila za olembedwa ntchito ku unduna wa olembedwa ntchito</i>	<input type="checkbox"/> <input type="checkbox"/>
	Health inspector/ <i>woyendera wochokera ku unduna wa za umoyo</i>	<input type="checkbox"/> <input type="checkbox"/>
Inspector not identified to any organization/ <i>woyendera wosadziwika ndi bungwe lina liri lonse</i>	<input type="checkbox"/> <input type="checkbox"/>	
If "No" or "Don't know" to all skip to Q15		
S6q13	Were you fined as a result of any of these inspections in the past 6 months?/ <i>Munalipilitsidwako chindapusa chifukwa chaku yendeledwaku mu miyezi isanu ndi umodzi yapitayi?</i>	<input type="checkbox"/>
	Yes=1	
	No=2 → Go to Q15	
S6q14	How much did you typically pay as fine following these inspections in the past 6 months?/ <i>Kodi munalipilistidwa chindapusa cha ndalama zingatipa miyezi isanu ndi umodzi yapitayi?</i>	MWK <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
We realize that both business people with documentation and those without often are asked to pay bribes for operating their businesses. / <i>Tinazindikira kuti onse pamodzi anthu a mapepala ngati awa ndi omwe alibe amafunsidwa kawirikawiri kuti alipire ziphuphu poyendetsa bizinesi zawo.</i>		
S6q15	Out of every 10 business owners (not you), how many do you think experienced requests for bribes relating to their business activity from inspectors or police at least once in the past 6 months? / <i>Mwa eni bizinesi khumi (osati inu), ndi angati amene mukuganiza kuti amakumana ndi zofunsidwa kupereka ziphuphu zokhuzana ndi zochitika za bizinesi zawo kuchokera kwa oyendela ndi apolisi mwina kamodzi pa miyezi isanu ndi umodzi yapitayi?</i>	<input type="checkbox"/> <input type="checkbox"/>

<p>S6q16</p>	<p>Have you been asked for a bribe in the past 6 months relating to your business activity? / Kodi munafunsidwapo kupereka chiphuphu pa zochitika za bizinesi yanu pa miyezi isanu ndi umodzi yapitayi?</p> <p>Yes=1 No=2 <input type="checkbox"/> Q19</p>	<p style="text-align: center;"><input type="checkbox"/></p>
<p>S6q17</p>	<p>Could you tell me what best describes the identity of the person who most often asked for a bribe in the past 6 months? / Mungamufotokozee bwanji munthu amene anakufusafunsani za kupanmga ziphuphu pa miyezi isanu ndi umodzi yapitayi?</p> <p>See List C</p>	<p style="text-align: center;"><input type="checkbox"/> <input type="checkbox"/></p> <p style="text-align: center;">Specify for</p> <p>Other:.....</p>
<p>S6q18</p>	<p>Could you tell me approximately how much in bribes (including cash, merchandise or other goods) did you have to pay in the PAST MONTH to keep your business running smoothly? / Mungandiuze kuti ndi pafupifupi ndalama zingati /katundu zimene munapereka pa ziphuphu MWEZI WATHAWU kuti bizinesi yanu iziyenda (bwino lomwe) myaa?</p> <p>Input value of any in-kind payments (including payment in merchandise). Code 0 if respondent didn't pay bribes in the past month. / Yikani mtengo wa kulipila kwina kulikonse (kuphatikizila kulipila katundu).</p>	<p style="text-align: center;">MWK <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>

<p>S6q19</p>	<p>Have you been asked for a bribe in the past [ever] relating to your business activity by a bank or lending officer? / <i>Mwafunsidwako kupereka chiphuphu mbuyomu [ever] chokhudzana ndi zochitika pa bizinesi yanu ndi akubanki kapena ofisala obwereketsa ndalama</i></p> <p>Yes=1 No=2</p>	<p style="text-align: center;"><input type="checkbox"/></p>
<p>S6q20&21 Now I am going to ask you about other types of harassment that people like you may face when trying to run their businesses.</p> <p><i>/ Tsopano ndi kufunsani za nkhanza zomwe anthu ngati inu mumakumana nazo poyesera kuyendetsetsa bizinesi zawo.</i></p> <p>Read out.</p>	<p>S6q20. Could you tell me if you have experienced [this] in the past 6 months?/ <i>Mungandiuzeko ngati munakumana nazo [izi] a miyezi isanu ndi umodzi yapitayo?</i></p> <p>Read out. Yes=1 No=2 <input type="checkbox"/> Next item</p>	<p>S6q21. Could you tell me what best describes the identity of the person who did [this]. <i>/ Mungamufotokoze bwanji munthu amene anachita [izi]?</i></p> <p>See List C</p>
<p>Threats to shut down business / <i>Kuopsezidwa kutsekedwa bizinesi</i></p>	<p style="text-align: center;"><input type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/><input type="checkbox"/></p>
<p>Locking of premises/ <i>Kukhoma/Kutseka malowa</i></p>	<p style="text-align: center;"><input type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/><input type="checkbox"/></p>
<p>Vandalism of premises or merchandise <i>/ Kuphwanyiridwa malowa kapena kuonongedwa katundu</i></p>	<p style="text-align: center;"><input type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/><input type="checkbox"/></p>
<p>Confiscation of property or merchandise <i>/Kuchotseledwa kapena kulandidwa zinthu zanu kapena katundu</i></p>	<p style="text-align: center;"><input type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/><input type="checkbox"/></p>
<p>Sexual proposals / <i>Kufunsiridwa</i></p>	<p style="text-align: center;"><input type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/><input type="checkbox"/></p>
<p>Beating / <i>Kumenyedwa</i></p>	<p style="text-align: center;"><input type="checkbox"/></p>	<p style="text-align: center;"><input type="checkbox"/><input type="checkbox"/></p>

List C. Person who harassed or asked for bribe
<i>Police =1</i>
<i>City Council / Municipality/ Malawi Bureau of Standards personnel=2</i>
<i>Tax Authority=3</i>
<i>Ministry of Industry and Trade=4</i>
<i>Neighboring business=5</i>
<i>Someone respondent owes money=6</i>
<i>Spouse/domestic partner=7</i>
<i>Relative of self/domestic partner=8</i>
<i>Business partner=9</i>
<i>Employee=10</i>
<i>Customer=11</i>
<i>Stranger=12</i>
<i>Landlord=13</i>
<i>Riotting mob=14</i>

Bank or lending officer=15
 Other=96, Specify

SECTION 9. PROFITS, REVENUES AND EXPENDITURES

MONTH			
S9q8	What were the total REVENUES in the past MONTH? / <i>Ndalama zonse zimene munatolera mutatha kugulitsa katundu mwezi wathawue ndi zingati?</i>		
	Ask for the exact amount (middle column) but can complement with range information (min and max) -DO NOT LEAVE BLANK-		
	Range Min: MWK <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Past month revenues: MWK <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Range Min: MWK <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

SECTION 10. WORKERS AND BUSINESS OWNERS

S10q1	<p>CURRENTLY how many people do any work for this enterprise? Also read: Please include unpaid people that help in the business including family members and all other workers including full-time, part-time, temporary, managers and apprentices. Please include business owners if they work on the day to day of the business (including respondent).</p> <p><i>Ndi anthu angati amene pakali pano amagwilira ntchito bizinesi ino? Komanso werengani: Chonde onjezerani anthu omwe salipidwa amene amathandiza pa bizinesi kuphatikizila achibale ndi antchito ena onse kuphatikizirapo olembedwa ntchito, apanthawi, aganyu, oyang'anira ndi ophunzira. Chonde phatikiziraninso eni bizinesi ngati amagwira ntchito pa tsiku ndi tsiku za bizinesi (kuphatikizanso ocheza nawo)</i></p>	<input type="text"/> <input type="text"/> <input type="text"/>
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SECTION 11.OPINIONS, INCOME AND HOUSEHOLD

S11q1	I am going to read some statements to you. Please tell me if you agree or disagree with each statement. / <i>Ndikuwerengerani mawu , chonde ndiuzeni ngati mukugwirizana nazo (kubvomereza) kapena ayi.</i>	
	<p>Please read out all statements. Agree=1 Disagree=2 Not applicable=98</p>	
	I trust banks. / <i>Ndimakhulupilira ma banki</i>	<input type="checkbox"/>

A friend of the bank or lending officer is more likely to get a loan/ <i>Ndizachidziwikire kuti munthu odziwika ku banki kapena odziwana ndi obwereketsa ndalama atha kutenga ngongole</i>	<input type="checkbox"/>
An acquaintance of the bank or lending officer is more likely to get a loan/ <i>Odziwika ku bank kapena odziwana ndi obwereketsa ndalama atha kutenga ngongole</i>	<input type="checkbox"/>
A government official is more likely to get a loan/ <i>Ndizachidziwikire kuti akulu a m'boma atha kutenga ngongole</i>	<input type="checkbox"/>
A family relation of the bank or lending officer is more likely to get a loan/ <i>Ndizachidziwikire kuti wachibale ndi anthu a ku banki kapena ndi anthu obwereketsa ndalama atha kutenga ngongole</i>	<input type="checkbox"/>
Business people offer gifts (including cash, merchandise or other goods) to influence the outcome of a loan application/ <i>Anthu amabizinesi amapereka mphatso (ndalama , katundu kapena zinthu zina) kuti ziathandize kupeza mwai wa ngongole</i>	<input type="checkbox"/>
Business people offer investment opportunities as an incentive to the bank or lending officer to influence the outcome of a loan application/ <i>Anthu a mabizinesi amapereka mwai wa zamalonda kwa anthu a kubank kapena obwereketsa ndalama kuti zotsatila zapempho la ngongole ziwakomere.</i>	<input type="checkbox"/>
I trust most Malawian business people in my sector to help each other./ <i>Ndimakhulupilira a Malawi ambiri opanga bizinesi ngati yangayi kuti tizithandizana</i>	<input type="checkbox"/>
I trust most foreign business people in my sector to help each other./ <i>Ndimakhulupilira anthu akunja ambiri opanga bizinesi ngati yangayi kuti tizithandizana</i>	<input type="checkbox"/>
It is easier to borrow money from other businesses than a bank or lending institution./ <i>Ndikwapafupi kubwereka ndalama kwa ma bizinesi ena kusiyana ndi ku banki kapena bungwe lobwereketsa ndalama</i>	<input type="checkbox"/>

SECTION 12.SOCIAL NETWORKS AND INTERRELATIONSHIPS

S12q1	<p>Are you or your business a member of a social networking gathering, group, or club, which helps you find business opportunities? Group/club/network/gathering refers for a group with at least 3 members. / <i>Inuyo kapena bizinesi yanu ndi membala wa gulu la social networking gathering, gulu kapena kalabu yomwe imakuthandizani kupeza mimwayi ya bizinesi? Gulu/kalabu/network/ likutanthauza ma membala osachepera atattu.</i></p> <p>Yes= 1 No= 2 <input type="checkbox"/> Q4</p>	<input type="checkbox"/>
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S12q2&3	<p>S12q2. Did belonging to this social networking gathering, group, or club ever help your business access [option]? / Kodi kukhala membala wa social networking gathering, gulu kapena kalabu kumathandiza bizinesi yanu chilichonse mwa izi? Read out all statements.</p> <p>Yes= 1 No= 2 <input type="checkbox"/> Next</p>	<p>S12q3. How did belonging to this social networking gathering, group, or club help you to access [option]?/ Kodi kukhala mugulumu kwakuthandizani bwanji kupeza []?</p> <p><i>It helped me receive information about [option]=1</i> <i>It has acted as guarantor to get loan=2</i> <i>It helped me to know a person who helps secure credit lines=3</i> <i>It helped me to know a person who helps secure contracts=4</i> <i>It helped me to meet with clients=5</i> <i>It helped me to meet with suppliers=6</i> <i>It helped me learn about new equipment available =7</i> <i>Other=96, Specify</i></p> <p>List up to 2 answers.</p>	
	Credit/ Ngongole	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	Business Contracts/ Mgwirizan o wa bizinesi (ma contract)	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
	Training/ Maphunziro	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
S12q4	<p>Are you involved in any formal or informal activities that enable you to interact with bank or lending officers?/ Mumatenga nawo mbali pa zichitochito zilizonse zovomerezeka kapena zosavomerekeza zomwe zitha kukupasani mwai wokambilana ndi a mabanki kapena wobwereketsa ndalama?</p> <p>Yes= 1 No= 2</p>	<input type="checkbox"/>	
S12q 5	<p>How likely is it for you to obtain a loan from a bank or lending institution if you personally know the bank or lending officer?/ Ndimwachidziwikile bwanji kuti mukhoza kupeza ngongole ku banki kapena bungwe lobwereketsa ndalama ngati mukudziwika ku bankiko kapena ofisala wa kubungwe lobwereketsa ndalama?</p> <p>Read out all options.</p> <p><i>Very unlikely=1</i> <i>Unlikely=2</i> <i>Neither likely nor unlikely= 3</i> <i>Likely= 4</i> <i>Very likely= 5</i></p>	<input type="checkbox"/>	

S12q 6	<p>Why do you believe it is [answer listed in Q5] for you to obtain a loan from a bank or lending institution if you personally know the bank or lending officer?/<i>Ndichifukwa chani mukukhulupilira kuti [yankho lalembedwa kufunso 5] kwa inu kutenga ngongole ku banki kapena ku bungwe lobwereketsa ndalama ngati mukudziwika ku banki kapena mumadziwana ndi ofisala wa kubungwe lobwereketsa ndalama?</i></p>	<div style="text-align: center;"> <input type="checkbox"/> <input type="checkbox"/> </div> <p style="text-align: center;">Specify for</p> <p>Other:.....</p>
	<p>Do not read out options to respondent.</p>	
	<p><i>Banks and lending institutions follow individual lending guidelines=1</i></p>	
	<p><i>They can track you if you default on their loans =2</i></p>	
	<p><i>Bank or lending officer does not have the power to make the final loan decision=3</i></p>	
	<p><i>Bank or lending officers have the power to negotiate loan decisions, but do not have the final say=4</i></p>	
	<p><i>It is unprofessional, but that is how loan requests are done=5</i></p>	
	<p><i>It is easier to offer a gift, whether monetary or otherwise=6</i></p>	
	<p><i>It depends on how powerful you are or who you know =7</i></p>	
	<p><i>I have obtained or I know people who have obtained loans this way=8</i></p>	
	<p><i>Bank or lending officer knows my business needs personally=9</i></p>	
	<p><i>Personal friendships do not affect business transaction=10</i></p>	
<p><i>Other=96, Specify</i></p>		

S12q 7	<p>What do you believe banks or lending insitutions need to change for business people to access credit easier?/<i>Mumakhulupilira kuti ndichani chomwe ma bank kapena mabungwe obwereketsa ndalama akuyenera kusintha kuti anthu azitha kupeza nawo mwai wa ngongole mosavutikira?</i></p>	<div style="text-align: center;"> <input type="checkbox"/> <input type="checkbox"/> </div> <p style="text-align: center;">Specify for</p> <p>Other:.....</p>
	<p>Do not read out options to respondent.</p>	
	<p><i>Reduce interest rates=1</i></p>	
	<p><i>Better target small businesses =2</i></p>	
	<p><i>Better training opportunities and awareness campaigns on loan requirements=3</i></p>	
	<p><i>Alternative assets considered as collateral=4</i></p>	
	<p><i>Standardize loan guidelines=5</i></p>	
	<p><i>Faster loan approvals=6</i></p>	
	<p><i>Partner with other Microfinance Institutions =7</i></p>	
	<p><i>Provide flexible lending products=8</i></p>	
	<p><i>Reduce bribery/corruption=9</i></p>	
	<p><i>Other=96, Specify</i></p>	