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Micro, Small and Medium Enterprise Upgrading in Low- and Middle-Income Countries

A Literature Review

Caroline Reeg

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Against this background, I would like to take this opportunity to express my gratitude for the support and advice of all my colleagues at DIE as well as external advisors. In particular, I would like to express my gratitude to Tilman Altenburg (DIE), Aimée Hampel-Milagrosa (DIE), Markus Loewe (DIE) and Hubert Schmitz (Institute of Development Studies).

Bonn, September 2013 Caroline Reeg

1 A synthesis paper on the joint research findings will be published in October 2013. The publications on the case studies of Egypt, India and the Philippines are available on DIE's webpage: http://www.die-gdi.de.

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Abbreviations

BMZ	Bundesministerium für wirtschaftlich Zusammenarbeit und Entwicklung / Federal Ministry for Economic Cooperation and Development
DIE	Deutsches Institut für Entwicklungspolitik / German Development Institute
GDP	Gross Domestic Product
GVC	Global Value Chain
ILO	International Labour Organization
LDC	Less-developed Country
MSE	Micro and Small Enterprise
MSME	Micro, Small and Medium Enterprise
OECD	Organisation for Economic Co-operation and Development
R&D	Research and Development
SME	Small and Medium Enterprise
UNIDO	United Nations Industrial Development Organization
USAID	United States Agency for International Development
WTO	World Trade Organization

Executive summary

Empirical observations suggest that only few micro and small enterprises (MSEs) *upgrade* into the segment of medium or large firms that show, on average, higher returns and levels of productivity (Berner / Gomez / Knorringa 2008; Mead 1994b; Mead / Liedholm 1998; Cotter 1996; Fajnzylber / Maloney / Montes-Rojas 2006; Fajnzylber / Maloney / Montes-Rojas 2009). Although most MSEs stagnate and eventually exit the market, there are, however, exceptional cases of enterprises that manage to progress from micro and small into medium or even large enterprises. This paper refers to this group as "upgraders". This poses the question as to which factors constrain or promote micro and small enterprises upgrading into higher size and productivity segments.

The aim of this literature review is to synthesise theoretical discussions as well as empirical evidence on MSE upgrading. Although particular literature strands suggest only a narrow set of determinants to explain enterprise upgrading, this paper takes stock of what we know on enterprise upgrading across research strands and disciplines and thereby adopts a broader bird's-eye perspective in identifying factors influencing enterprise development and upgrading. This paper is part of a larger explorative research project conducting three country case studies in Egypt, India and the Philippines (Loewe et al. 2013; Reeg 2013; Hampel-Milagrosa forthcoming). The latter are aimed at informing research, policy-makers and practitioners alike on how successful trajectories of enterprise development unfold and which sets of factors have been constraining and driving upgrading.

This paper defines upgrading as enterprise *growth* triggered by firm-level *innovation.* At a conceptual level, enterprise upgrading has two constituting elements – one quantitative and one qualitative: on the one hand, enterprise upgrading is understood as a step from being a business with stagnating or declining income, productivity and employment to becoming a growing business that constantly increases its income, productivity and number of paid workers. On the other hand, enterprise upgrading also includes qualitative improvements in products, processes and ways of organising production (Schmitz / Knorringa 2000). These qualitative changes allow the enterprise to reap innovation rents, increase the overall value added and become competitive in the long term (Porter 1998). Yet, although it might seem that enterprise growth and firm-level innovation are two separate concepts, they are indeed strongly interlinked. Although quantitative growth, or a simple "scaling-up" of economic activities can happen without the simultaneous occurrence of qualitative improvements (innovation), e.g. taking advantage of an overall economic boom, it is the qualitative improvement at the firm level that eventually spurs long-term growth and competitiveness. Accordingly, for enterprise growth in productivity, profits, turnover, assets or employment to be sustainable, innovation is a condition *sine qua non*.

Most factors as to *why* enterprises differ in their performance to grow and innovate can be divided between those that relate to the internal quality of the firm and those external to the firm. In particular, factors that are linked to the internal quality of the firm are concerned with individual (1) *entrepreneur characteristics* or with (2) *enterprise characteristics.* On the other hand, factors linked to the quality of the external environment are focused on the role of (3) *inter-firm and social networks* and (4) the *wider investment climate*. Referring to these four different groups of factors, this study adopts an "onion" model, in which each layer is looked at in more detail (please see Figure 2).

Although factors associated with one of these four layers were analysed in the research, we do not know how important each and every factor is compared to the others. We also have little empirical evidence on how particular factors, when combined, play a role in enterprise upgrading. This literature tries to bring together several literature strands and empirical research to explore the relative importance of upgrading determinants and constraints. The following paragraphs offer a short overview of the analytical framework and factors affecting MSE upgrading.

Looking at the factors internal to the firm, characteristics of the entrepreneur and the enterprise itself – including its employees, structures and features – are said to determine enterprise upgrading:

(1) With regards to *entrepreneur characteristics*, the age and gender of an entrepreneur is said to influence upgrading probabilities. Those conducting the behavioural research and the literature on entrepreneurship have studied the importance of an entrepreneur's motivation, risk-perception and other cognitive and psychological measures in explaining enterprise development (Bates 1990; Nafziger / Terrell 1996; Szirmai / Naude / Goedhuys 2011; Baumol 1990; Wiklund et al. 2011; Shane 2000; Baum / Locke 2004; de Mel / McKenzie / Woodruff 2008). Further, skills and abilities acquired through formal education, work experience and training are shown to influence enterprise upgrading (Burki / Terrell 1998; Tan / Batra 1995; Tan 2000; Mead / Liedholm 1998; McPherson 1991; Parker 1995; Barr 1998; Kantis / Angelli / Koenig 2004).

(2) At the *enterprise level*, factors such as the firm's age, its location, its registration status as well as its sectoral embeddedness are said to influence upgrading dynamics. Also, the technological-capability approach – as represented in the literature on absorptive capacity, research and development (R&D) and partly on innovation systems – highlights the importance of factors related to the capacity and ability of the entrepreneur and his employees to access, absorb and produce external knowledge as drivers of enterprise innovation and long-term competitiveness (Afenyadu et al. 1999; Figueiredo 2002a; Figueiredo 2002b; Lorentzen 2005; Cohen / Levinthal 1990; Giuliani 2002; Camisón / Forés 2010; Bell / Albu 1999; Giuliani / Bell 2005). The role of tacit knowledge and the cumulative process of economic learning are at the core of these approaches. In this strand of literature, economic learning is understood as a process of imitating and adapting business models, ideas and technologies to local contexts (Hobday 1995; Hobday / Perini 2009; Lall 1997; Romijn 1997).

Looking at the factors external to the firm, the literature refers to characteristics and factors associated with business and social networks as well as with the wider business environment.

(3) Research on *inter-firm and social networks* has shown how relational aspects affect enterprise development (Powell 1990; Granovetter 1982). In contrast to formal modes of coordination, such as through markets or hierarchies, networks are considered to be informal modes of economic governance that drive enterprise upgrading through collective efficiency and collective learning (Meagher 2010). This idea is most prominently reflected in the literature on global value chains, industrial clusters, innovations systems and social capital, which highlights the advantages of economies of scale, coordination and competition in building competitiveness, such as in collective

marketing (Humphrey / Memedovic 2003; Humphrey / Schmitz 2000; Morrison / Pietrobelli / Rabellotti 2008; Nadvi 1995; Baumol 2001). However, whereas some promote inter-firm and social ties as gap-fillers for the lack of state action, others identify tight and exclusive networks as the problem, rather than the solution, for enterprise upgrading. In particular, research on the informal sector in Africa and Latin America depicts social and communal ties as dysfunctional, or even as fetters, of economic development that lead to economic decline, clientelism and fragmentation (Grimm et al. 2011; Collier 2007; Altenburg / Meyer-Stamer 1999; Castells 1996).

(4) Research employed by the World Bank and mainstream development economists has drawn attention to the role of the *business environment* in constraining or enabling enterprise growth and innovation (Eifert / Gelb / Ramachandran 2005; de Soto 1989). They argue that overburdening regulations, informality and the lack of financing are major constraints hampering small enterprise development (Klein / Hadjimichael 2003; Beck / Demirgüç-Kunt 2006; Safavian / Fleisig / Steinbuks 2006; Klapper 2006; Ayyagari / Demirgüç-Kunt / Maksimovic 2006; Beck 2007; World Bank 2007; World Bank 2008; Sharma 2009; World Bank 2011a). According to their analysis, policy treatments to unleash small-enterprise growth should include the deregulation and simplification of bureaucratic procedures, the protection of property rights and the formalisation of informal businesses. Further, targeted policies to improve access by MSEs to finance have been proposed to support and expand their economic activities (Beck / Demirgüç-Kunt / Maksimovic 2005; Beck 2007). This is reflected in popular micro-lending and savings initiatives administered, such as through Grameen Bank and ProCredit. Further, research has drawn attention to the role of physical infrastructure as well as access to energy, markets and information as enabling conditions for enterprise growth and innovation (Singh 2002; Cawthorne 1995; Weijland 1999; Knorringa / Weijland 1993; Davis et al. 2001; Lall / Pietrobelli 2002).

By combining different strands of literature, this paper aims to synthesise current knowledge and thereby intends to contribute to a clearer and more comprehensive understanding of enterprise development and enterprise upgrading. It deduces four main conclusions:

1 *There is no clear trend in the literature in explaining enterprise upgrading:* Although much of the literature stresses one particular factor in particular – e.g. the regulatory environment (World Bank 2013; de Soto 1989), the role of clusters and networks (Pyke / Sengenberger 1992) and the entrepreneur's capabilities (McClelland 1985) – empirical research in many countries has shown that mono-causal approaches fall short in explaining the very idiosyncratic and cumulative process of enterprise development. In particular, the heterogeneity among micro and small enterprises across and within countries – in terms of investment climates, interconnectivity with networks, abilities and strategies – implies that, along the way, different factors will play a role at different times. Thus, although in a given context some factors will be more important than others, there is no such a thing as a "recipe" for enterprise success or a trend in explaining firm development across a very heterogeneous group of enterprises.

2 *Enterprise upgrading requires a virtuous combination of internal and external factors in the "onion" model*: "Internal" and "external" perspectives have been more and less dominant in the different waves of the academic discourse on enterprise development.

However, in order to understand enterprise upgrading, it is important to discover "combinations of success", meaning to understand how the internal quality of the enterprise matches with the external quality of the environment. These factor combinations can be quite different, depending on the external institutional environment, the market structure and opportunities as well as many more factors associated with the entrepreneur himself and his networks at hand. For example, entrepreneurs may face different constraints in facilitating learning and technological catching-up and therefore need to adopt strategies in which they make use of specific types of external resources. Depending on the availability, entrepreneurs may opt for the use of personal networks or professional linkages, e.g. global value chains (GVCs), to organise know-how and technology transfer. The idea of highly contextualised sector combinations falls back to the idea of "systemic competitiveness". The latter is defined as the outcome of strategic factor combinations with the aim of addressing complementary growth constraints at the macro-, meso- and micro levels (Esser et al. 1996).

3 *Factors associated with the entrepreneur and his firm are underestimated:* The current prevailing perspective in enterprise development highlights the positive contribution of market forces in establishing an external *business environment* that is conducive to private sector development and enterprise upgrading (World Bank 2011a; World Bank 2013). Yet, the literature has shown that there are always some enterprises that manage to upgrade despite "unfavourable business environments" and financing constraints. Conversely, countries that rank high with regards to their business environment are not necessarily the ones with the most dynamic entrepreneurial economies. Accordingly, the question evolves as to why, *ceteris paribus*, unfavourable regulatory and institutional conditions, some enterprises perform better than others. It therefore seems that factors internal to the enterprise are currently highly underestimated. Factors such as the education and work experience of the entrepreneur as well as the enterprise's motivation and ability to learn seem to influence upgrading much more than current perceptions suggest.

4 *Explaining how certain factors matter for enterprise upgrading is confronted with conceptual and empirical challenges*: Synthesizing insights from different research fields requires being aware of various conceptual and methodological challenges:

- *Conceptually,* there is no common understanding of enterprise upgrading, enterprise growth or firm-level innovation among scholars and policy-makers. Further, there is little conceptual work connecting these different phenomena. A major reason for this lack of clarity is the fact that research on enterprise development is inter-disciplinary and unites the interests of various research fields such as development economics, entrepreneurship, business and innovation studies, economic history and economic sociology. Accordingly, there exists great heterogeneity in ideas and conceptualisations of enterprise development.

- *Data availability and research designs:* As enterprise upgrading is a phenomenon that happens over time, preferably, it should be researched longitudinally. But working with panel data on MSEs is tricky, since only few of these datasets exist. More importantly, due to the informal character of MSEs and the problem of separating business activities from private ones, it is very hard to set up a good panel. However, recent studies on micro entrepreneurs in Sri Lanka and Ghana have

also used panel data and field experiments to inform the debate on micro-enterprise growth (de Mel / McKenzie / Woodruff 2008; McKenzie et al. 2011). Yet, currently there is no study on micro-enterprise growth tracking micro entrepreneurs for a longer period than three years. Subsequently, the vast majority of quantitative research so far has used one-shot cross-sectional techniques to study enterprise growth, leading to problems of selectivity and omitted variable biases (Beck / Demirgüç-Kunt / Maksimovic 2005; Beck 2007). In contrast, qualitative research on micro- and small-enterprise development has favourably made use of case studies to describe and analyse processes of technological learning and small-enterprise innovation. These studies normally make use of in-depth interviews, focus-group discussions and historical data; however, they stand mostly under the critique of being rather "subjective" in nature and not providing comparable data and insights.

- *Operationalisation*: Although productivity growth or returns on investment are probably the best quantitative measures to operationalise enterprise upgrading, most studies in developing countries utilise employment growth as a second-best option. This is because usually MSE owners who are operating in informal markets do not keep books on financial and production ratios, making accurate calculations on productivity or returns unconvincing. Still, using employment growth as a proxy for upgrading offers no information about the qualitative improvements at the firm level. In particular, since upgrading is understood to result from innovation, it is crucial to develop a proxy capturing qualitative increases in the skill and knowledge content of economic activities. Against this background, scholars working on small enterprise clusters and their integration into global value chains have forwarded a typology of upgrading (Schmitz / Knorringa 2000). According to them, increases in the production value can be caused by product innovations, process innovations and the acquisition of new functions as well as through the expansion of activities into other sectors (inter-sectoral innovation). Introducing different types of innovations is helpful in categorising the nature and source of value added. However, the actual operationalisation of what is a product, process or organisational innovation is unclear and very case sensitive. In particular, this type of qualitative judgement is strongly vulnerable to inter-subjectivity by the informant and the researcher. Further, it leaves open the question of how qualitative and quantitative measures of enterprise upgrading can be systematically analysed and compared.

In summary, this paper shows that enterprise upgrading is a complex phenomenon that requires several conditions within the external environment and with regards to the quality of the entrepreneur and firm to be met for upgrading to occur. Due to the country and case sensitivity, these factor combinations are not standardisable. However, this literature review provides some insights on the role of various factors along the four major "onion" layers. More synthesised and generalisable conclusions on enterprise upgrading are withheld due to the lack of consistent conceptual definitions, operationalisations and measurements of enterprise development and upgrading. Further, the availability of good panel data (across countries) affects the quality of work and insights that can be drawn. Accordingly, more inter-disciplinary research on micro, small and medium enterprises (MSMEs) with better (panel) data is needed.

1 Introduction

A striking, but common, feature of economies in low- and middle-income countries is vast structural heterogeneity among private enterprises. Within the private sector, there exists a significant productivity gap between a small number of highly productive large and medium enterprises and a vast majority of micro and small enterprises in backward industries. In fact, in most low- and middle-income countries, the size segment for micro and small enterprises (MSEs) accommodates nearly all low-productivity businesses. These businesses are usually run by a single person or include a few family members as employees. Moreover, these are typically located in traditional and informal markets characterised by low wages and unskilled labour. In order to boost their productivity and their job-creation potential, MSEs need to initiate upgrading processes, by which they incrementally improve the quality of their products, increase their human capital, adopt new technologies and enhance their specialisation and inter-firm linkages.

The stagnation of small enterprises and the productivity gap in developing countries is not only a problem for the individual enterprise, but also impacts on the industrial competitiveness and social inclusion of the economy (Altenburg / Eckhardt 2006; Altenburg / Drachenfels 2006; Altenburg 2006a; Altenburg 2006b; Hampel-Milagrosa 2011). As more productive medium and large firms are trying to catch up in the international technological frontier, the gap between different size and productivity segments within developing economies tends to widen. These dynamics of fragmentation further limit the opportunities for MSEs to kick-start necessary upgrading processes through inter-firm learning relations, making necessary adjustments in low-productivity segments of the economy even more unlikely. These dynamics reduce the potential for inter-firm specialisation and, in turn, affect the long-term competitiveness and flexibility of larger enterprises. Additionally, although having a strong economic impact, the stagnation of MSEs further enhances the social exclusion of a large number of business owners and workers from necessary processes of modernisation and minimises opportunities of income generation.

Indeed, a large amount of empirical studies document that most MSEs in developing countries do not upgrade their businesses to the next level of productivity, assets and employment (Berner / Gomez / Knorringa 2008). Rather, the majority of firms stagnate, close down and exit the market place (Liedholm / Mead 1987). Though there is only a very small likelihood that MSEs upgrade into a higher size or productivity segment, there are, however, exceptions to the rule. In fact, there exists a group of MSEs that have successfully managed to upgrade into the medium- or large-sized segment. The literature refers to this group as “upgraders”, “gazelles” or “high-growth” firms.

As a result, the aim of this paper is to present and discuss which factors *constrain* and/or *promote* micro and small enterprises upgrading into higher employment size and productivity segments. By combining different strands of literature, this review intends to contribute to a clearer and more comprehensive understanding of enterprise development and upgrading.

In this review, upgrading is defined as *enterprise growth* triggered by firm-level *innovation.* At a conceptual level, enterprise upgrading has two constituting elements – one quantitative and one qualitative: on the one hand, enterprise upgrading is understood as a step from being a business with stagnating or declining income, productivity and

employment to becoming a growing business that constantly increases its income, productivity and number of paid workers (*enterprise growth*). On the other hand, enterprise upgrading also includes qualitative improvements in products, processes and ways of organising production (firm-level *innovation*) (Schmitz / Knorringa 2000). These qualitative changes allow the enterprise to reap innovation rents, increase the overall value added and become competitive in the long term (Porter 1998).

Most factors as to why enterprises differ in their performance to grow and innovate can be divided between those that relate to the *internal* features and quality of the firm and those features and characteristics that are *external* to the firm. In particular, factors that are linked to the internal quality of the firm are concerned with individual (1) *entrepreneur characteristics* or with (2) *enterprise characteristics.* On the other hand, factors linked to the quality of the external environment are focused on the role of (3) *business and social networks* and (4) *the wider business environment*. Referring to these four different groups of factors, this study adopts an "onion" model, in which each layer is disaggregated and looked into in more detail (please see Figure 2).

Some scholars might exclusively study either small-enterprise *growth* or firm-level *innovation* as the dependent variable, which is why bringing together different strands of literature and research fields under the umbrella of enterprise upgrading is a difficult task. However, by making clear differences and overlaps throughout the paper, the reader should be made aware whenever measures of growth, innovation or both are used in the text.

The paper is structured as follows. Chapter 2 critically examines the concept of enterprise upgrading and provides a working definition of upgrading. Chapter 3 provides the reader with empirical observations on MSMEs and their dynamics in low- and middle-income countries. Chapter 4 reviews the literature according to factors that have been found to be either negatively or positively linked with the MSME upgrading phenomenon. Chapter 5 concludes on the state of literature on enterprise development and upgrading.

2 The concept of enterprise upgrading

Enterprise upgrading aims to analyse the performance of firms over time. A firm's performance is contingent on the interaction of a number of internal and external forces at different times of the business cycle. This idiosyncratic complexity has made it difficult to develop a universal model or a comprehensive theory of firm development. Against this lack of theoretical guidance, the concept of enterprise upgrading has proven to be useful in studying and observing the development of domestic private sectors in developing countries.

The term "upgrading" has been used to indicate the general need for a qualitative improvement in economic production and performance. Further, the need to upgrade productive capabilities has been applied to different units of analysis, e.g. enterprise clusters, economic sectors, industries and latecomer economies in general. However, this paper follows an exclusively disaggregated view on upgrading by single enterprises and enterprise clusters. Thus, at the centre of attention are the firm and its individual efforts to increase its return on investment and value added in production.

However, when talking about the "upgrading" of enterprises, scholars and policy-makers often mean different things. In particular, in the development literature, a diverse and

incoherent understanding of graduation and the process of upgrading exist. There are three different understandings of enterprise upgrading: upgrading as *business formalisation*, upgrading as *enterprise growth* or upgrading as firm-level *innovation*. The following paragraphs clarify the different understandings and inter-linked aspects of enterprise upgrading. In tracking the different strands of literature and research traditions, this section provides an overview of the concept of enterprise upgrading and a synthesis on the inter-linkages for the following chapters.

Enterprise upgrading as business formalisation

In the developing-country literature, some researchers refer to enterprise graduation as the enterprise's transfer from informal to formal modes of operation through business registration and compliance with all state legal requirements. Plentiful studies on the formalisation phenomenon exist (de Soto 1989). Many are weighing the benefits and disadvantages of staying on either side of the formality–informality spectrum (de Soto 1989; Levenson 1997).

More recently, a growing body of academic literature has drawn attention to the function of the regulatory business environment as a catalyst for moving firms out of the informal economy and into the formal sector (Sharma 2009; La Porta / Shleifer 2011; World Bank 2011a; World Bank 2007; Klein / Hadjimichael 2003). In particular, this strand of literature understands business formalisation as the registration of the company. It follows that enterprise graduation is seen as "completed" as soon as firms follow a formal *modus operandi*. Arguably, the transition from an informal to a formal *modus operandi* is a good indicator of the enterprise's graduation into a more productive, profitable and sustainable enterprise segment; however, defining registration *per se* as a constituting element of upgrading is misleading, as it rather describes the outcome of qualitative and quantitative improvements at the firm level (Ishengoma / Kappel 2006). In fact, there exist upgraded informal enterprises that are productive and profitable units though they are *not* registered.

Enterprise upgrading as enterprise growth

The development economics, entrepreneurship and business literature understand enterprise growth as being a developmental step from a stagnant or declining business to a growing business that constantly increases its assets, productivity or number of employees. Further, in high-income economies, where bookkeeping among enterprises is common and mostly required by state regulations, scholars also refer to more detailed financial ratios and performance measures such as specific production inputs and outputs, cash flow, total turnover, and many more, in order to indicate the profitability and performance of an enterprise.

However, although many authors use growth measures such as number of employees or other financial ratios and production measures, there are indeed possibilities that enterprises grow without qualitatively improving sourcing practices, processing methods or the way a product is sold (marketing). This might happen in cases of scarcity, very fast market expansions or through political protection and isolation of certain market participants. Even increases in productivity do not necessarily reflect innovation efforts and improvements, as productivity growth could be caused by better use of installed capacity through higher demand (e.g. in the case of vast market expansion or political

isolation). Yet, given a competitive environment with many other firms struggling for a bigger market share, most long-term enterprise growth will be based on firm-level innovation. Only with innovation and capability development can enterprise growth be made sustainable, even during periods of adverse external circumstances.

Enterprise upgrading as firm-level innovation

Among scholars of economic history, economic geography, entrepreneurship and innovation studies, enterprise development is understood as firm-level innovation. Especially, the literature on industrial clusters and global value chains has used the concept of enterprise upgrading to explain processes of firm-level innovation (Humphrey / Schmitz 2000; Schmitz 1998; Morrison / Pietrobelli / Rabellotti 2008; Kaplinsky / Morris 2001).

Most of these researchers are analysing "upward" and "downward" movements of economic actors in GVCs and clusters (Humphrey / Schmitz 2000; Schmitz 1998; Morrison / Pietrobelli / Rabellotti 2008; Kaplinsky / Morris 2001). For this strand of research, upgrading is defined as primarily qualitative improvement, and thus bases its analytical strength on understanding processes of learning and innovation at the cluster and firm levels. In view of that, introducing novelty in production could be through improving products and processes as well as through upgrading into new chain functions or into new sectors (Schmitz / Knorringa 2000). According to Humphrey and Schmitz, there exist four types of innovations: product upgrading, process upgrading, functional upgrading and inter-sectoral upgrading (Humphrey / Schmitz 2000, 3).

However, the thought of innovation being at the core of an enterprise's long-term competitiveness initially goes back to the Schumpeterian idea of "creative destruction". Creative destruction describes the formation of new means–ends frameworks through the entrepreneur (Schumpeter 1943; Schumpeter 1949; Schumpeter 1911). These "qualitative changes" enable the enterprise to escape the competition conundrum and ensure higher-than-average returns ("innovation rents") for the innovator (Porter 1998). Yet, since competitors will quickly follow on that path, innovation rents are only a temporary advantage. Entrepreneurs are therefore urged to constantly learn and change technological techniques, organisational procedures and strategic management. This, in turn, requires an entrepreneur who is relentlessly searching for external knowledge and business opportunities that promise to generate above-average profits. Accordingly, central to the understanding of the Schumpeterian entrepreneur is the regular absorption and exploitation of knowledge for future innovation.

In the context of MSMEs in economies of low- and middle-income countries, we define "innovation" as a cumulative and gradual process that includes the invention, but also the diffusion and adaptation of knowledge. Thus, innovation at the firm level should not be understood as a spontaneous breakthrough or sudden event. Rather, innovation describes practices of a firm doing business differently from its competitor and thereby reaping higher-than-average returns ("innovation rents") (Porter 1998). This relative notion of innovation allows us to study innovation with different degrees of novelty; whether it is new to the world, new to the local market or new to the firm. Accordingly, innovation in countries with developing and emerging economies is defined as the process in which economic agents are required to diffuse or adapt new technological or procedural practices

to a given local context (Bell / Albu 1999). This creative process implies technological learning and the capacity to adapt innovative solutions.

The relationship between innovation, enterprise growth and business formalisation

Building on the three understandings mentioned above, enterprise upgrading in this report is defined as enterprise *growth* triggered by firm-level *innovation*. Business formalisation is seen as a phenomenon most likely to result from enterprise upgrading, yet not constituting a criterion for defining upgrading.

Although, in general, innovating increases the likelihood of a firm's survival, for the enterprise to upgrade, its innovation activities have to generate above-average returns. Thus, although innovation is the trigger for upgrading, it is actually the above-average returns ("innovation rents") that *grow* an enterprise's profits, productivity, sales or number of employees. Normally, innovation rents occur when enterprises perform relatively better compared to their competitors. However, there might be many cases in which enterprises innovated, yet were not able to reap (sufficient) innovation rents to cover initial investments, e.g. such as in the case of weak property rights or very high and fierce levels of competition. Thus, innovating does not necessarily mean upgrading.

Similarly, there might be enterprises whose profits have grown or who have increased the number of employees by simply expanding their economic activities in times of increasing market demand without prior innovation efforts. However, we assume that it is the qualitative improvement at the firm level that eventually spurs long-term growth and firm-level competitiveness. Accordingly, for there to be enterprise growth in productivity, profits, turnover, assets or employment over a longer period of time, *innovation* is a condition *sine qua non*. Summing up, the definition of "upgrading" combines two central aspects of enterprise research (see Figure 1):

- On the one hand, enterprise upgrading is understood as a *quantitative* step from a business with stagnating or declining income, productivity and employment to a growing business that constantly increases its income, productivity and number of paid workers.

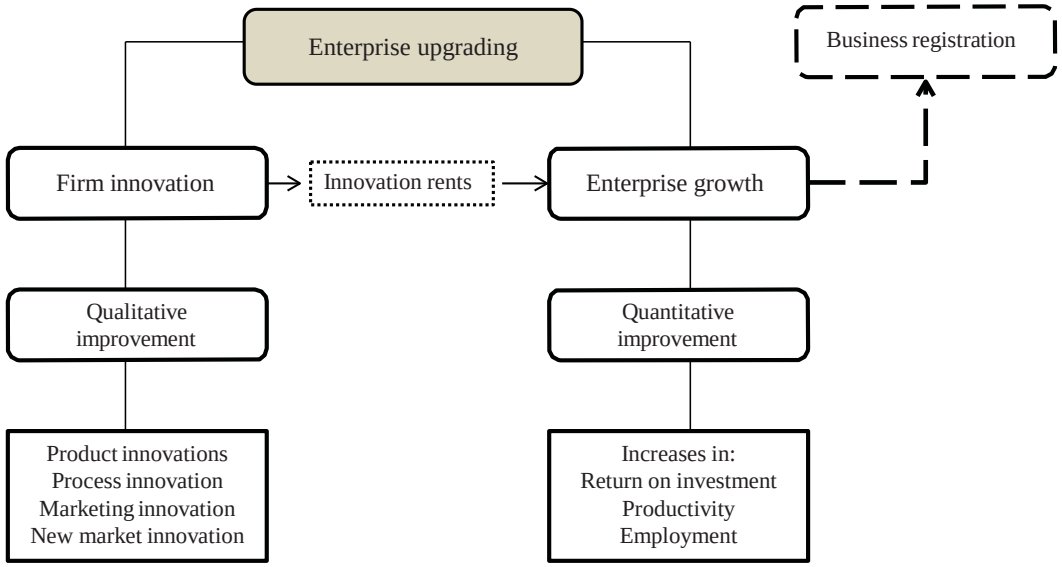
- On the other hand, enterprise upgrading also includes *qualitative* improvements in products, processes and ways of organising production (Schmitz / Knorringa 2000). These qualitative changes allow the enterprise to reap innovation rents, increase the overall value added and become competitive in the long term (Porter 1998).

Finally, upgrading, or firm growth, occurs regardless of whether the enterprise is located in the informal or formal sector. Yet, it is most likely that somewhere along the business growth path, as the enterprise's size (in terms of market visibility) and existence become more apparent and dependent on legal modes of transaction, the business will have to move from the informal to the formal sector through registration.[2] However, business formalisation is not understood as a defining criterion of upgrading, but eventually seen as a result of upgrading.

2 Note that, in the whole economy, there are also businesses that immediately enter into the small / medium / large-sized category without passing through the micro stage.

Accordingly, an "upgrader" is an enterprise that has grown in employment, returns or productivity by introducing innovation activities, such as introducing product or process innovations.

Figure 1: Definition of enterprise upgrading



Source: Author's own illustration

3 MSME dynamics in low- and middle-income countries

This chapter provides some insights into the definitions of MSMEs. It also gives a rough overview of the features of the MSME sector in low- and middle-income countries. Finally, it presents different waves of empirical research on MSMEs in low- and middle-income countries.

3.1 Definitions of micro, small and medium enterprises

In high-, middle- and low-income countries, the vast majority of firms are MSMEs. However, what is termed to be micro, small or medium in size depends on the national or regional accounting practices. These are normally defined according to the range of firm sizes in a given country, where threshold levels can vary significantly. In the Organisation for Economic Co-operation and Development (OECD), the enterprise structure is very different from that of medium- and low-income countries. The United Nations Industrial Development Organization (UNIDO) offers definitions for both country clusters (summarised in USAID 2007). Internationally, the most common definitions of MSMEs are based on the number of employees. Generally, in industrialised countries, medium enterprises are defined as having 100–499 employees, whereas small firms have fewer than 99 employees. This also slightly varies across the United States and European countries (OECD 2005). Further, due to better data access, enterprises in industrialised

countries may also be categorised according to their assets, turnover, sales and other measures of firm performance, creating very different size distributions.

In medium- and low-income countries, the question of what constitutes a micro, small and medium enterprise has been a major concern in the literature. Different authors use different measures according to local accounting practices. Very often the definition of enterprise thresholds depends on the researchers' perspective or on a particular research framework. Depending on data availability, some researchers use capital assets, profits, production methods, sales or legal status as defining-size measures. Yet, the most common categorisation is based on number of employees. This is because information about other size-indicators such as output, sales, etc., is difficult to access, as most MSME entrepreneurs do not want to share their accounting books or do not keep any records at all. However, many studies use slightly different numbers as thresholds, making the distinction between micro, small and medium enterprises far less strict. According to UNIDO's approach, micro enterprises are those employing between 1 and up to 5 workers, small firms are categorised as firms having 5–19 workers and medium-sized firms as having 20–99 workers (Elaian 1996; Abor / Quartey 2010).

In addition to national and international definitions varying, a further challenge to applying a homogenised definition and statistical measurement of MSMEs stems from the fact that the group of MSMEs is a very heterogeneous one, incorporating businesses ranging from petty traders and artisans to high-end, technologically advanced and specialised manufacturing units. MSMEs are represented in modern service industries as well as in traditional manufacturing sectors, such as apparel, automobiles, information technology, agricultural processing and many more. Also, in developing and emerging markets, MSMEs are often located in informal markets, making the documentation of statistical records difficult.

3.2 The features of the MSME sector

Developing economies are typically characterised through large informal sectors, which hold a lot of necessity entrepreneurs and other forms of informally employed workers, e.g. home workers (OECD 2009). Over the last decade, the informal economy seems to have been even growing in parallel with real gross domestic product (GDP) growth rates in many developing economies in Asia and Africa (World Bank 2011b; OECD 2009). However, exact numbers of MSMEs and informal employment contracts are difficult to decipher, since these economic activities are beyond official statistical nets. MSMEs are very often too small and not in existence long enough to be accounted for. This, however, makes obtaining (panel) data on micro, small and medium enterprises in developing countries a challenging task. As a consequence, official numbers of MSMEs in developing countries are notoriously underestimated.

Although the exact number of small businesses is a matter of speculative estimation, research provides in-depth insights into the nature of informal micro and small businesses. Most MSMEs enter traditional markets that have low access barriers, are usually quite saturated and characterised by fierce competition as well as decreasing profits and wage levels (Altenburg / Eckhardt 2006). However, it is widely acknowledged that the MSME sector generates substantial employment in many countries. The sector's share of overall

employment tends to be higher in developing countries (Tybout 2000; Thurik 1995; Mead 1994b; Mead / Morrisson 1996). In many Latin American countries, micro and small enterprises employ more than half of the working population. An ILO study (2003) examining firms with fewer than 10 workers found that they generated 58 per cent of total employment in Paraguay, 54 per cent in Mexico and 53 per cent in Bolivia. This is supported by Mead and Liedholm (1998), who found that in the five African countries under study, the number of people engaged in micro and small enterprises was twice the level of those employed in the formal large-scale and public sectors.[3] Moreover, they show that most of these enterprises were only one-person undertakings. Hired workers, excluding unpaid family workers, were a rare case, and in most countries the percentage of hired workers constituted only around 20 per cent of the MSE labour force (Mead / Liedholm 1998).

3.3 Empirical research on MSMEs in low- and middle-income countries

As Gomez (2008) points out, there have been various waves of research addressing micro, small and medium enterprises. Researchers in this area have been confronted with the challenge of tracking MSMEs, which are in a constant state of flux. Thus, figures of aggregated net changes mask the ups and downs within the MSME sector. With this comes the challenge of data collection: one big challenge faced by researchers is determining which data collection method to employ. As enterprise upgrading is a phenomenon that happens over time, preferably, it should be researched longitudinally. But working with panel data on MSEs is challenging, since only few of these datasets exist. More importantly, due to the informal character of MSEs and the problem of separating business activities from private ones, it is very hard to set up a good panel.

Basically, there are two common data-collection methods that have been used to generate data on small-scale industries in developing countries; the *multiple visit survey* and the *one-shot business survey*. Whereas early studies based on the works of Liedholm and Mead (1994b; 1998; 1991; 1996; 1987) tried to develop comprehensive longitudinal data sets on various developing countries, more recent studies have been based on individual cases or one-shot country studies (Chijoriga 1997; McPherson 1996b; Cabal 1995; McPherson 1991; Weijland 1999; Fajnzylber / Maloney / Montes-Rojas 2006; Kevane / Wydick 2001; Orlando / Pollack 2000; Parker 1995; Chijoriga 2000; Fajnzylber / Maloney / Montes-Rojas 2009; Hayashi 2002; Nichter / Goldmark 2009; Roy 2004; de Mel / McKenzie / Woodruff 2008; Afenyadu et al. 1999).

The pioneering study of Liedholm and Mead (1987) was one of the first studies to provide the reader with panel data on small-enterprise growth in several developing countries. The authors found that only 1 per cent of enterprises surveyed at that time with four or fewer workers managed to upgrade into the next size category. During a five year (1990–1995) research project in five sub-Saharan African countries, Mead (1994a) observed the same phenomenon: fewer than 20 per cent of those with four or fewer workers managed to upgrade to the next level. Worse, among the few micro firms that managed to grow, only 1 per cent managed to upgrade into the "small" size category (more than 10 employees). In Kenya, Cotter (1996) found that upgrading rates among enterprises are very low or close

3 The survey was conducted between 1990 and 1995 in Botswana, Kenya, Lesotho, Swaziland, Zimbabwe, South Africa and the Dominican Republic.

to zero. Another study in Mexico finds that in a given year, just 12 per cent of one-person enterprises expand, and that larger micro enterprises have a higher probability of contracting than expanding (Fajnzylber / Maloney / Montes-Rojas 2006).

Efforts by the World Bank's *World Business Environment Survey* team to systematically collect data on micro and informal enterprises have encouraged promising research on MSE dynamics. La Porta and Shleifer (2011) used this data set for analysing productivity differences between registered and unregistered firms and between small and big firms in selected African countries. They found that productivity jumps sharply from informal to formal firms and that it also rises with the size of formal firms. They also found that there is no evidence that informal firms become formal as they grow. Rather, they provided evidence that, due to the large divide in productivity differences, there is probably no causal effect of registration on the performance of informal firms. Another hint supporting their thesis is the difference in the quality of goods and services offered by formal and informal – and large and small – firms. This divergence indicates a strong segmentation of markets that is not driven by registration, but rather by the capability to produce certain quality goods (La Porta / Shleifer 2011).

Most recently, studies on micro entrepreneurs in Sri Lanka and Ghana have also used panel data and field experiments to inform the debate on micro-enterprise growth (de Mel / McKenzie / Woodruff 2008; McKenzie et al. 2011). Similarly, they have found that a very small group of entrepreneurs manages to grow with regards to employment. This study collected data not longer for a period of two to three years. However, currently there is no recent study on micro-enterprise growth tracking micro entrepreneurs for a longer period than three years. Thus, due to severe panel data constraints, so far the vast majority of quantitative research has used one-shot cross-sectional techniques to study enterprise growth (Beck / Demirgüç-Kunt / Maksimovic 2005; Beck 2007). In contrast, qualitative research on micro- and small-enterprise development has made use of case studies to describe and analyse processes of technological learning and small enterprise innovation. These studies normally make use of in-depth interviews, focus group discussion and historical data. However, by nature, the latter produces only partial evidence, which is case-specific and allows no further generalisations, whereas the former is vulnerable to selectivity and problems of endogeneity.

Although there are severe data constraints in studying MSE dynamics, the message seems to be clear: enterprise upgrading in developing countries is not "business as usual". Research across countries indicates that only a very small group of enterprises manage to upgrade and generate sustainable employment. This empirical observation has led to the use of enterprise "labels" and stylised facts in order to capture the essence of specific types of small firms. These are labelled according to their motivation, abilities, networks and growth strategies. In academic circles, those enterprises that do not aim to expand their businesses are termed *survivalist* or *necessity* enterprises, whereas business owners that are motivated to fill in a market opportunity with their business are termed "growth-oriented", "gazelles" or "opportunity" enterprises.

What follow now are highly stylised descriptions of the above-mentioned enterprise labels. They have been condensed so as to provide a quick overview of the nature and potential of the various enterprises within the heterogeneous group of MSEs. These "archetypes" do not aim to resemble the diversity and heterogeneity of the MSE sector in developing countries,

rather they are intended to give the reader an idea of the business spectrum, including its "grey zones". In addition, this typology is merely descriptive and is by no means intended to offer an explanation as to why some small firms upgrade and others fail.

Table 1: Typology of necessity and opportunity enterprises

Necessity enterprises	Opportunity enterprises
Street-business types belonging to a community of the poor	Small-scale family enterprises that could be located in the intermediate sector
Ease of entry, low capital requirements, low skills and technology	Barriers to entry in terms of capital, skills and technological requirements
Involuntary entrepreneurs	Entrepreneurs by choice, often with backgrounds in regular employment
Proprietors are mostly female	Proprietors are mostly male
Entrepreneurial objective is to maximise security and smooth consumption	Entrepreneurial objective is to maximise profits and accumulate wealth by taking risks
Part of diversification strategy, often run by idle labour, with interruptions and/or part-time	With some degree of specialisation, consistent production
Embeddedness in social relations, obligation to share	Disembeddedness in social relations

Source: Author's own (adapted from Rogerson 1996; Berner / Gomez / Knorringa 2008; Reynolds et al. 2005; Altenburg / Meyer-Stamer 1999)

"Necessity" or "survivalist" enterprises are enterprises typically found in developing countries. These businesses require little capital investment and almost no skills-training from the proprietor. These enterprises normally operate in the streets among a clientele that consists of a community of the poor (Berner / Gomez / Knorringa 2008; Banerjee / Duflo 2007). There exist very few barriers to entry to this type of business, which often makes use of low levels of technological input and is often found in the services sector rather than in manufacturing (Mead / Liedholm 1998; Liedholm 2002). The objective of the uncommitted entrepreneurs is to ensure income security and smooth consumption during a period of unemployment. This makes the survivalist entrepreneurs highly risk-averse and focused on business diversification rather than specialisation. These types of enterprises are often run by women.

On the contrary, "growth-oriented" or "opportunity" enterprises, also known as "gazelles", are a rare case. In general this type of micro entrepreneur is conceived of as a potential small- and medium-enterprise owner. Accordingly, opportunity entrepreneurs, or gazelles, are likely to be upgraders. These enterprises are usually found in the intermediate sector, operating in a domain with significant barriers to entry (e.g. technological capabilities). Opportunity enterprises are usually marked as those businesses that are hampered in their growth, not because of their motivation, but because they suffer from limited access to capital, e.g. loan provisioning. Despite these obstacles, opportunity entrepreneurs are willing to take entrepreneurial risks to invest in new ventures and perhaps even follow strategies of specialisation. Though highly motivated, these businesses often only consist of the entrepreneur and some unpaid family members. Although they have some basic business skills, opportunity entrepreneurs are said to be constrained by their finances,

market access and further know-how when attempting to upgrade their businesses sustainably. Males are said to dominate these types of businesses (Liedholm 2002; McPherson / Liedholm 1996; McPherson 1996a).

In summary, only the latter type of micro enterprise is seen as being a candidate for upgrading into a small or medium enterprise. These are the enterprises that drive aggregate employment and productivity growth in the small business sectors and have a sustainable impact on poverty alleviation and economic growth (Nichter / Goldmark 2009). The next section discusses factors that drive micro firms into becoming successful small, medium-sized or even large enterprises.

4 Determinants of MSME upgrading

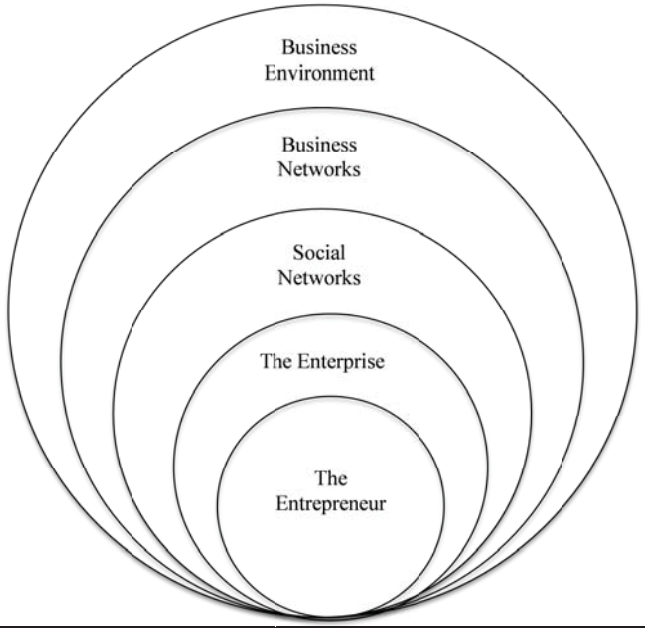
The overarching research question in the field of small enterprise development is: *Why* do so many micro and small firms stagnate or exit the market while others innovate and grow successfully to the more rewarding and sophisticated middle or high economic tiers? As a result, many researchers have committed their work to the study of "causal" factors and processes that are expected to either "constrain" or "drive" enterprise growth and innovation. Their main objective is to identify factors and processes that can partly explain the observed variations in enterprise performance in developing countries. However, the existence of a large number of internal and external factors that could affect firm growth and innovation creates a challenge for studies aiming at approaching a full explanation of the phenomenon. In fact, many authors of review articles complain that a coherent picture is not easy to distil from the literature (Nichter / Goldmark 2009; Liedholm / Mead 1991). The lack of conceptual clarity further creates confusion and raises comparability issues, making it nearly impossible for research to build on former work.

Thus, whether a superficial or a deep reading of the existing literature is undertaken, it leaves the reader confused and wondering. This is likely due to two reasons: on the one hand, it is the inherent complexity and heterogeneity of the phenomenon itself that challenges scholars to draw clear-cut conclusions. On the other hand, studies compiled so far differ in their theoretical and epistemological perspectives, interpretations, operationalisations and empirical contexts. In addition, whereas individual studies cover a range of factors at different levels, there have only been a few attempts to integrate and test all encountered upgrading determinants. This tension between case studies vs. cross-sectional approaches will remain. However, in order to gain insights about how to design adequate policies, one will need to draw some conclusions, even if highly aggregated, on the basis of the extensive econometric and qualitative work that has been compiled so far.

It is not possible within the boundaries of this paper to provide an exhaustive perspective on these different bodies of research. However, this literature review aims to combine major insights from different research disciplines by focusing on particular factors that have been shown to drive or hamper enterprise development. Thus, this paper is structured according to four levels of factor analysis, as drawn out in the "onion" model (see Figure 2), which follows a systemic approach in capturing relevant upgrading determinants. Similar to the systemic competitiveness approach, the onion model integrates micro-, meso- and macro perspectives (Esser et al. 1996). Used as an analytical framework, the onion model holds the following layers:

1. *Entrepreneur characteristics*: On the individual level, there are various strands of literature concerned with factors associated with the entrepreneur, such as motivation, psychological measures, education and work experience (Olomi / Nilsson / Jaensson 2001; Mead / Liedholm 1998; Berner / Gomez / Knorringa 2008).
2. *Enterprise characteristics*: At the level of the firm, scholars have investigated specific factors such as age, location and sector of the firm. Further, it is debated *whether* the role of registration and absorptive capacity to incorporate external knowledge influence enterprise upgrading (Beck 2007; Beck / Demirgüç-Kunt / Maksimovic 2008; Beck / Demirgüç-Kunt 2006; Mead / Liedholm 1998).
3. *Business and social networks*: On the meso level, inter-firm networks, value chains, social ties and business associations have been identified as playing a *crucial* role (Humphrey / Schmitz 1996; Nadvi 1995; Meagher 2010; Gereffi 1999; Gereffi 1994; Gereffi 2002; Ponte / Gibbon 2005; Gibbon 2004; Eifert / Gelb / Ramachandran 2005). Although business and social networks constitute distinctive channels of interaction – and therefore can be regarded as two separate layers – these tend to blur and overlap strongly in the case of micro, small and medium enterprises. For example, many MSMEs are run as family businesses that interact with suppliers, buyers and traders and are socially entrenched within family and friend circles. Accordingly, it is intuitive to see business and social networks as distinctive but strongly connected spheres. Therefore, these will be conceptualised as two separate layers in the onion model, yet subsumed within one chapter on (business and social) networks (see Chapter 3.).
4. *The business environment*: At the macro level, scholars discuss economic and political stability as well as how institutional and regulatory aspects affect the private *sector*, in particular small-enterprise growth. Further, the intensity of market competition and access to financing are dominant themes in the literature on enterprise growth and innovation (Beck / Demirgüç-Kunt 2006; Beck / Demirgüç-Kunt / Levine 2003; Sharma 2009; Djankov et al. 2002).

Figure 2: Determinants of enterprise upgrading – the "Onion"



Source: author's illustration

It is worth mentioning that different strands of literature have developed their own terms and definitions when studying enterprise development. However, the majority of research aims at explaining enterprise growth and/or firm-level innovation.

The following chapters discuss key findings for four types of determinants: (1) entrepreneur characteristics, (2) enterprise characteristics, (3) business and social networks as well as (4) factors associated with the business environment.

4.1 Entrepreneur characteristics

The entrepreneur is at the core of every enterprise. Whether it is the process of starting up a new business or the process of upgrading incumbent firms, it is the entrepreneur's decision that affects whether and how these processes evolve and take shape. It is therefore crucial to see what makes a successful entrepreneur.

Schumpeter sees the entrepreneur as an innovator or pioneer who introduces "creative destruction" by combining factors of production in a way that is new to the economy (Schumpeter 1943; Schumpeter 1911). These "new combinations" constitute better ways to meet existing demand or create new products, often making current technologies and products obsolete. With new firm entries and constant upgrading dynamics, less-efficient firms will fail to defend market shares and only more-efficient and innovative enterprises will emerge and expand**.** This entrepreneurial dynamic is not only expected to introduce competition in the market, but it is also said to spur overall demand for a new product while also leading to economic growth and employment creation (Schumpeter 1943; Schumpeter 1911). Consequently, within the Schumpeterian account, entrepreneurs are depicted as the heroes of economic development. They are described as change agents who are strongly motivated, act innovatively and creatively, and furthermore take risks to invest in opportunities that have not been identified before.

As for the case of enterprise start-ups in developing countries, the majority of micro and small enterprises are indeed one-person undertakings (Mead 1994b). This suggests that entrepreneurs maintain a very high level of control and oversight of business activities and performance. Therefore, the characteristics of these individuals should have a major impact on enterprise upgrading. However, though the idea that entrepreneurs are innovators is largely acceptable, it can be difficult to apply this notion to less-developed countries (LDCs). Often in LDCs, entrepreneurs are not truly innovators in the traditional sense of the word. Entrepreneurs in LDCs rarely produce brand new products: rather they imitate the products and production processes that have been invented elsewhere in the world (typically in high-income countries). This process can be called "creative imitation" (Hobday / Perini 2009). Creative imitation takes place when the imitators better understand how an innovation can be applied, used or sold in their particular market niche than the people who actually created or discovered the original innovation. Thus, the innovation process in LDCs is often that of imitating and adapting.

When looking at innovative entrepreneurs and their enterprises, it is useful to look at their behavioural characteristics in order to identify processes that affect the entrepreneurial processes positively. Based on entrepreneurship theory, there is a wide array of individual behavioural factors that have a strong effect on enterprise upgrading. For example, one of

the most important factors is whether an entrepreneur has the motivation to grow his or her business. Further, personal characteristics such as gender and age of the entrepreneur are said to affect enterprise development. Often discussed as factors that affect enterprise upgrading are the roles played by the entrepreneurs' education, training and work experiences. The following sections provide more detail as well as empirical insights into the relevance of each factor.

4.1.1 Behavioural characteristics

A debate has evolved around the issue as to what characterises an entrepreneurial attitude and personality (Davidsson / Delmar / Wiklund 2002; Davidsson / Wiklund 2000). Most prominent among economists are occupational and behavioural definitions of entrepreneurship (Szirmai / Naude / Goedhuys 2011). From the occupational point of view, entrepreneurs are simply all those who are self-employed and/or business owners. This definition is based on the assumption that individuals on the labour market make a decision on whether to be employed, to be self-employed or to be unemployed. In contrast, a number of authors argue that an owner's motivation for starting and running a business affects an enterprise's growth potential. A business that has been set up to exploit an opportunity in the market is expected to have a higher propensity for growth than a business for which the main drivers are push factors such as unemployment, dissatisfaction with present employment or other personal reasons. Accordingly, the Global Entrepreneurship Monitor measures both "opportunity" and "necessity" entrepreneurship in order to differentiate whether self-employment is a matter of choice or necessity (Reynolds et al. 2005).

Most scholars would agree that starting a business out of necessity does not capture the pioneering characteristics of a Schumpeterian entrepreneur. According to Schumpeter, entrepreneurs consciously choose self-employment because they spot a market opportunity and want to exploit it, to the degree whereby they introduce innovation (Schumpeter 1943; Kirzner 1997). Further, another defining feature of opportunity entrepreneurship is the willingness to take risks (Knight 1921). This implies that only a specific sub-sample of entrepreneurs with the "right" attitude and motivation will push their enterprises towards upgrading. From this perspective, being innovative, taking risks and exploiting market opportunities are critical behavioural components of being an entrepreneur.

However, this definition excludes a large group – the self-employed in low- and middle-income countries. In fact, one should expect large differences in entrepreneurial qualities necessary for enterprise upgrading in developed and developing countries. Being a successful entrepreneur in a developing country might require a different version of the Schumpeterian ideal. Innovation at the firm level will resemble technology adoption rather than invention. As in the words of Hobday and Perini, latecomer entrepreneurs will have to accomplish the task of "creative imitation" rather than "creative destruction" (Hobday / Perini 2009). Further, given the absence of formal social security nets, risks at the individual level will probably be perceived as more severe. Finally, the difficulties in spotting and exploiting market opportunities will be greater due to capability problems (education and skill levels) and obstacles related to the regulatory business environment.

Most empirical research on behavioural aspects and traits so far has been collected in developed countries. Although, as argued above, there are many reasons why entrepreneurship in high-, middle- and low-income countries will be different, the following empirical insights are based on studies in high- as well as medium- and low-income countries. This approach had to be adopted because research on attitudes and risk-behaviour of small-scale entrepreneurs in the low- and medium-income countries is quite scarce.

In line with behavioural arguments, Berner, Gomez and Knorringa (2008) argue that the main reason enterprise upgrading rarely occurs in developing countries is because entrepreneurs lack the motivation to pursue growth. Although business owners are involved in entrepreneurial activities, the necessary entrepreneurial attitude or goal is simply missing. In fact, Cotter (1996), Afenyadu et al. (1999), Wright (1999) and Reynolds et al. (2005) have shown that most poor entrepreneurs in developing countries start their businesses only as a means of surviving (for example, as a response to unemployment). Similarly, Olomi, Nilsson and Jaensson (2001) argue that initially for most micro and small enterprises in low- and medium-income countries, the question of growth motivation is simply irrelevant. If the business is set up to primarily meet the economic needs and "stabilise" the family's income, resulting profits will mostly be further recycled to meet the family's needs. The ability to accumulate wealth and reinvest it in enterprise expansion is not a priority and will not be actively pursued. Thus, the entrepreneur's commitment to the business is quite loose, and she could easily discontinue involvement in the business should a situation arise that requires her to do so, for example, extreme financial losses from the enterprise or re-acquiring wage employment.

However, in contrast to former arguments, Olomi, Nilsson and Jaensson (2001) put forward the idea that it is only when the business starts making a significant difference in the entrepreneur's financial welfare that the entrepreneur's interest, commitment to the business and entrepreneurial career will intensify, thereby jumpstarting the necessary entrepreneurial attitude and motivation for enterprise upgrading. From this perspective, growth motivation is a dynamic trait that can change with the performance of a business and is not a static "trait" that allows a clean-cut separation between "opportunity" and "necessity" entrepreneurs.

Further, entrepreneurship theory states the need for a group of people who are willing to make risky investments to drive economic growth. Accordingly, taking risks is seen as another crucial characteristic used to describe the entrepreneurial personality. Testing this premise by implementing a lottery exercise, de Mel, McKenzie and Woodruff (2008) test the relative risk-aversion of SME owners, wage workers and the self-employed in Sri Lanka. Counter-intuitively, they find that successful SME owners are more risk-averse than either of the two other groups. Yet, when asking more general questions about the willingness to take financial risks and risks in life, they find SME owners to be the most willing and wage workers the least willing to take risks. This outcome is more in line with theoretical expectations, wherein micro entrepreneurs are in between wage workers and SME owners in terms of risk-behaviour. However, taken together, the evidence is inconclusive. A major reason is that studies on risk-behaviour barely take into account environmental aspects. Most studies see risk-behaviour exogenous from the situation surrounding the entrepreneur. This is likely to bias results and produce false conclusions.

Thus, there is a large potential for future studies analysing risk-behaviour in different contexts.

Apart from risk-aversion, the literature has also proposed various other psychological measures affecting an entrepreneur's motivation to upgrade his or her business. Most prominent among the entrepreneurship literature are measures on work centrality (Mishra / Ghosh / Kanungo 1990), tenacity (Baum / Locke 2004) and achievement (McClelland 1985). Whereas the first indicates the importance of work in life, tenacity shows the willingness of individuals to keep doing their work under difficult conditions. Further, the need for achievement is defined by the satisfaction that is obtained by the individual from doing well in a competitive environment. De Mel, McKenzie and Woodruff (2008) provide indicative evidence from developing countries that motivation and determination are important determinants of firm size, as SME owners are more tenacious and work-motivated than own account workers and wage workers. Yet, this observation does not conclude causal effects between attitudes and firm performance.

Further qualities quoted in the literature are the individual need to be in control over what other people should do (power motivation) and putting oneself in unknown situations (internal locus of control) (McClelland 1985). Other measures are the ability to multitask (polichronicity), organisational abilities, general optimism towards life, impulsiveness in decision-making and savings behaviour (Bluedorn et al. 1999). De Mel has found that, with regards to power motivation, own account workers in Sri Lanka are similar to SME owners. Yet, SME owners are more willing to put themselves in new situations than own account and wage workers (de Mel / McKenzie / Woodruff 2008). Micro entrepreneurs are also found to be more impulsive and less organised than SME owners and wage workers. However, compared to wage workers, SME owners are more comfortable with multitasking. Finally, the study in Sri Lanka finds that SME owners are the most optimistic and wage workers the least.

Motivation and tenacity might be crucial determinants of whether an enterprise becomes large or stays small. Yet, there is no evidence that particular personal attitudes lead to enterprise upgrading. It is important to bear in mind that an entrepreneur's motivation and his attitudes develop over time. It is therefore not sufficient to study the factors *associated* with employment growth. Rather, one would need to measure attitudes prior to self-employment and firm expansion. Thus, in order to provide some indicative evidence on causal inferences between attitudes and enterprise upgrading, longitudinal and process-oriented studies are required.

Using panel data incorporating a period of two and a half years, de Mel, McKenzie and Woodruff (2008) look at employment growth of enterprises, which, at the point of the baseline survey, had no paid workers. They find that after two and a half years, fewer than 9 per cent of firms had hired one or more paid employees (de Mel / McKenzie / Woodruff 2008). Moreover, they find that enterprise owners with higher abilities and a higher need for achievement were more likely to add employees. Lower rates of motivation for power are also associated with employment growth, supporting the case for the importance of delegating tasks and specialising roles within an enterprise. Indeed, when controlling for abilities, need for achievement and motivation for power, family background and measures of childhood wealth and well-being are much less important.

In summary, ability, motivation and need for achievement are the most significant factors in differentiating SME and micro-enterprise owners, suggesting that the relationship between motivation and firm upgrading might be causal in nature. Thus, although empirical evidence supports the idea that motivation is strongly associated with employment growth, it also hints at the role of other attitudes and abilities in explaining enterprise upgrading. It further suggests that access to credit will unleash growth dynamics only for a few entrepreneurs.

Potential factors driving motivation could be rooted in the ability to identify market opportunities. Moreover, entrepreneurs might also be driven by non-profit motivations, such as the wish to be personally independent. In Kenya, Nelson and Mwaura (1997) find that personal as well as financial freedom and self-determined decision-making are valued highly among opportunity entrepreneurs. However, the role of the entrepreneur's personal and family goals also has a strong impact on business strategy. For example, the same study in Kenya found that the entrepreneur's concerns about his family and relatives resulted in withholding productive investments and discouraged the delegation of responsibilities. This hints at tensions between growth-orientation and personal goals in life.

4.1.2 Entrepreneur's age

Characteristics such as the proprietor's age are said to influence the propensity to upgrade. However, worldwide results tend to be mixed.

The limited empirical evidence in developed countries suggests that the owner-manager's age tends to be negatively related to growth (Boswell 1973; Davidsson 1991). This is also supported by a recent study in Sri Lanka that shows that older business owners are found to be less likely to grow (de Mel / McKenzie / Woodruff 2008). Using Colombian data, Cortes (1987) also argues that older entrepreneurs are on average more likely to object to the expansion of their businesses. This suggests that younger individuals may be more willing to assume risks and grow their business in contrast to matured firms that are consolidated. However, although younger individuals might have more motivation to expand their business, they also may have fewer financial resources and fewer networks. On the other hand, McPherson (1996a) tested data collected from five sub-Saharan African countries and found that the effect of age on enterprise upgrading was inconsistent.

4.1.3 Entrepreneur's gender

Most MSEs in low-and middle-income countries are run by women. Mead and Liedholm (1998) found that, on average, 61 per cent of MSEs in several African countries and the Dominican Republic are run and owned by women. This occupational choice might in particular be driven by the fact that entry into small-scale entrepreneurship is easy and other sources of employment for women are scarce. The notion of women's enterprises is one of informal micro-sized entities operating within saturated economic sectors and local markets (Ramachandran 1993). Female owners often lack access to resources such as land, financing, education and work experience (Hampel-Milagrosa 2011; ILO 2004b;

ILO 2002). These characteristics are typical for marginalised groups in society; however, within this group there are more women than men running a business. This is because men in this group are still more likely to find employment opportunities whereas women aim to supplement household income by opening a soup kitchen, processing garments or growing and selling agricultural produce. This occupational distribution among men and women creates the impression of a predominantly inferior profile of women's businesses. They are seen as having fewer of the ingredients needed for success, such as motivation, abilities and ideas (ILO 2004b).

Part of the literature provides evidence that female-led enterprises tend to grow more slowly than those run by males (Hampel-Milagrosa 2011; Liedholm 2002; McPherson / Liedholm 1996; McPherson 1996b). Mead and Liedholm (1998) found that employment in male-headed MSEs grows an average of 11 per cent a year, versus 7 per cent for female-headed MSEs. Similarly, Inter-American Development Bank research in Latin America and Asia found that only 1 in 10 firms that grows to at least 15 employees is woman-owned (Kantis / Angelli / Koenig 2004). Also, de Mel, McKenzie and Woodruff (2008) found that female enterprises in Sri Lanka are less likely to add employees. However, these differences in growth rates might be due to several factors associated with women's roles in society that constrain women's business opportunities, rather than the lack of personal entrepreneurial characteristics and traits among women.

The problem of data generation on small firms and also the small number of "visible" female-headed enterprises make proving this case through statistical measures quite difficult. Yet, there are various dynamics at the household level indicating why female-headed businesses may face more constraints for enterprise upgrading than male-headed businesses.

The literature reports on different challenges that women face when running and growing their small businesses. A range of socio-cultural norms and structural conditions constrain women's opportunities for economic success and their abilities and willingness to benefit from it. Women do have a weaker standing when it comes to rights, obligations and responsibilities within a household (Downing / Daniels 1992; Downing 1990). In this respect, they experience time and mobility constraints. Using data from Guatemala, Kevane and Wydick (2001) show that women-specific obligations, such as child-bearing and rearing, are a principal growth constraint of female-led firms, as they constitute additional and often conflicting tasks.

Also, the motivation of women is first and foremost to increase household incomes and to ensure the well-being of their dependents. They achieve this by diversifying their business activities rather than specialising. This confirms Downing and Daniel's (1992) hypothesis that female entrepreneurs are more risk-averse than their male counterparts. Being risk-averse and not growth-oriented is mentioned in the literature as a main reason why female-led MSEs grow more slowly and are, on average, significantly smaller than those outside of the household (Mead / Liedholm 1998). Further, the "micro" size of women's enterprises is strongly related to the sectors and markets in which women entrepreneurs operate. In fact, in developing countries 80 per cent or more of home-workers are women (ILO 2004b).

Research in Ghana, Mexico and Sri Lanka shows that an average male-owned micro enterprise gains more from capital than an average women-owned enterprise (McKenzie /

Woodruff 2008; McKenzie et al. 2011; de Mel / McKenzie / Woodruff 2008). Yet, the study in Ghana shows that, despite the growth constraints discussed in this section, women can be highly effective firm-owners. The study found a group of women showing high profitability and high capital returns in their investments. However, these returns were only realised when capital came in-kind.

Moreover, although female-owned businesses may grow more slowly, there is also some evidence that female-owned textile MSEs have higher levels of labour productivity than those owned by men (Downing / Daniels 1992). However, as is true for other factors, categorising MSEs only as female- versus male-owned firms may create an impression of "false universalism" that disregards the heterogeneity of small firms (Marlow / Patton 2005). In fact, in contrast to many simplifications, there is a group of growth-oriented, women-led enterprises. Much of the literature on female-led MSEs has contested that women have a limited business vision that is either too risk-averse or under-skilled to boost their businesses (Olomi / Nilsson / Jaensson 2001). Similarly, there is research that has found that there are no gender differences in the attitude towards risk (Nchimbi 2002). An ILO (2004b) study in Tanzania, Ethiopia and Zambia found that the majority of interviewed female MSE owners had completed their secondary school education and 18 per cent had previously been in business or self-employed. Another 11 per cent had worked in other MSEs or in their family's business, which indicates that some female business owners had previous work experience before starting their own businesses (ILO 2004b).

The common notion that women have unequal access to financing has led to the introduction of a range of micro-credit programmes targeted specifically at female entrepreneurs. However, micro-credit institutions do not account for the heterogeneity within the group of female entrepreneurs. Lending practices of micro-credit institutions offer only group-lending schemes or group-based collateral arrangements (Chijoriga 1997; Chijoriga 2000; Chijoriga / Cassimon 1999). Whilst this suits some women, it does not suit all, particularly those who are growth-oriented (Hadiya 1998). As with many other studies, an ILO study found that most women entrepreneurs used personal savings, loans from friends and family, and informal lending schemes to fund their businesses (ILO 2004b).

In summary, because women have fewer opportunities to develop relevant work experiences, access long-term financing and have greater difficulty in assembling resources, they are less likely to grow; however, female-led enterprises do not grow that often because of structural deficits rather than because of their gender.

4.1.4 Education

Higher levels of education are expected to increase the ability of the entrepreneurs to cope with problems and seize opportunities for enterprise growth and innovation. Education is presumably related to the entrepreneur's skills, motivation, self-confidence, problem-solving abilities, commitment and discipline. Further, a person's search skills, foresight, imagination and communication skills are said to be enhanced by education. Practically, formal education may provide entrepreneurs with a greater capacity to learn about and absorb new information about production processes and product designs. Empirical testing

of the endogenous growth theory pointed out that economies with higher percentages of well-educated employees were the ones that exhibited high rates of productivity growth. In summary, the argument is that education is an investment in human capital and specialised knowledge and, as a consequence, it increases labour productivity, and therefore the innovation prospects of firms within an economy (Romer 1990; Romer 1994).

Research has shown that, on average, MSE owners and their employees have low levels of education. Completion rates of primary education prevail at quite low levels of 60 per cent in sub-Saharan Africa, but are higher in South Asia (80 per cent) and in the Middle East and North Africa (90 per cent) (World Bank 2009). Micro-enterprise owners and their employees show lower levels of educational attainments compared to those in SMEs and larger firms (Orlando / Pollack 2000; Soderbom / Teal 2001; de Mel / McKenzie / Woodruff 2008). In terms of cognitive abilities such as numerical memory, non-verbal reasoning and financial literacy, de Mel, McKenzie and Woodruff (2008) found that own account workers achieve consistently lower performance levels than SME owners, and, hence, are rather comparable to wage workers. This stands in contrast to the self-employed in developed countries who, on average, have achieved above-average educational attainment levels (Woodruff 1999).

So how does the educational status of the entrepreneur affect firm performance? Most empirical evidence in developing countries indicates that firms with better-educated owners are more efficient, yet, the effect of education *per se* on the propensity to upgrade is less clear (Burki / Terrell 1998; Tan / Batra 1995; Tan 2000). Only a few studies have dealt with the relationship between human capital and economic performance at the enterprise level. Whereas many studies in sub-Saharan Africa show that MSE owners who pass the secondary school level indeed have firms that grow more rapidly, this effect is not observed for the primary education level (Mead / Liedholm 1998; McPherson 1991; Parker 1995). In Latin America, an Inter-American Development Bank study found that even secondary-school attainment has no effect on firm growth (Kantis / Angelli / Koenig 2004). Yet, the Inter-American Development Bank study also found that 6 of every 10 Latin American entrepreneurs with high-growth firms are university graduates. Hence, evidence seems to be inconclusive.

It is highly plausible that human capital and the acquisition of specialised knowledge are crucial for productivity growth (see Romer 1990; Romer 1994), yet at the micro level, the associations between the level of formal schooling and enterprise growth is unclear. This suggests that it is rather the quality and content of schooling and training that matters rather than schooling *per se*. Qualitative evidence shows that in developing countries entrepreneurs come from traditional trading communities with little formal education and training. Rather, these small-scale entrepreneurs rely on their social and business networks to spread information and exchange business practices (Romijn 1997; Hobday / Perini 2009).

Accordingly, formal education might enhance the success of individual entrepreneurs, yet the knowledge and information that is needed to start and grow a business is very likely not taught at school. When comparing SME owners, wage and own account workers in Sri Lanka, de Mel, McKenzie and Woodruff (2008) also look at parental backgrounds. They find that parents of SME owners have higher levels of schooling than the parents of wage workers, whose parents have about the same level of educational attainment as those of

own account workers. Although it seems that own account workers and wage workers share many characteristics, the study of de Mel, McKenzie and Woodruff finds that at the age of 12, both SME owners and own account workers were more likely to have had self-employed parents than wage workers. This might indicate that growing up in an environment in which at least one parent is self-employed may provide the incentive and access to relevant knowledge in order to start and grow a business.

4.1.5 Work experience and training

In low- and middle-income countries, learning on the job is the main means for small-scale entrepreneurs to gain the relevant and industry-specific know-how and abilities to start and grow their own businesses. Hence, prior work experience and training should equip small business start-ups with several advantages, in contrast to those without any prior industry experience.

There are three ways how on-the-job training contributes to enterprise development. One particular advantage is that work experience conveys exactly those capabilities and skills that are needed for starting and running a firm in the same or similar sector. Second, prior work experience is said to expand the entrepreneur's social and inter-firm networks, which might prove to be a source of various kinds of support. Third, there is some discussion of whether the status of being employed in a specific industry also provides privileged access to potentially successful business ideas, which, in turn, increases the likelihood of success for new ventures. Given the complexity of establishing a new venture, experienced entrepreneurs with some industry experience might be more likely to avoid costly mistakes than those with no prior entrepreneurial experience. In summary, theory implies that work experience – in particular industry experience – will increase the likelihood of firm success.

However, in developing countries, opportunities for relevant work experience and training, such as in modern industrial sectors and manufacturing, are rare. In Africa, for example, most training on the job is done in a small number of other small and medium-sized enterprises; however, these few training possibilities are not enough to equip the large bulk of the unemployed youth and petty entrepreneurs. MSE owners and workers in Ghana have, on average, only five years of work experience, whereas owners and workers in larger firms have accumulated at least 10 years of work experience (Barr 1998). In Sri Lanka, de Mel, McKenzie and Woodruff (2008) found that more than half of the own account workers have spent their entire working lives as self-employed. Only a third have ever been employed as wage workers, and only 5 per cent have worked overseas. When asking SME owners about their former work histories, these were – compared to own account workers – significantly more likely to have involved employment as wage workers before the starting of a business. The latter point indicates that wage work does indeed constitute a profound opportunity to learn generic and industry-specific skills that enable firm owners to grow more rapidly.

So do firms with more-experienced owners also grow faster? Parker (1995) found that entrepreneurs in Kenya who have worked at least seven years prior to the small-business start-up did indeed grow faster than those without prior work experience. Mincer (1962) and others have argued for a very long time that practical on-the-job training is nearly as important as education. Indeed, in sub-Saharan Africa, McPherson (1996a) and Parker

(1995) reported that entrepreneurs with vocational training and those who gained experience working in another business owned firms that grew much faster than those owned by proprietors without previous experience. In addition, work experience has been found to enhance professional and social networks, which are helpful in accessing financial resources, management advice and identifying business opportunities (Eifert / Gelb / Ramachandran 2005; Ramachandran / Ramnarayan 1993). Business contacts gained during past employment have been found to be a key benefit among Latin American and Asian high-growth entrepreneurs (Kantis / Angelli / Koenig 2004).

Further, having relevant industry experience will help potential entrepreneurs to better understand the subtleties and cultural references within their respective business environments. However, there is only limited research on the role of prior industry-specific work experience on enterprise growth in developing countries. Most research in developed countries found no – or even a negative – relationship between prior industry experience and firm growth (Cooper 1993; Storey 1994). In particular, Storey (1994) shows that more work experience in a sector is related to slower firm growth. Yet, a longitudinal study in the Netherlands finds that the entrepreneur's prior experience in the same industry does indeed improve the propensity of firms to survive and grow (Bosma et al. 2004). One explanation for these contradicting results might be that industry experience is critical in some sectors but not in others, e.g. in high-technology firms or in those fields in which operating knowledge is not widely diffused. Yet, in other fields, such as in the food and catering industry or simple manufacturing, prior work experience may not be as important, and the needed skills are easily acquired through learning on the job. However, some prior industry experience will not necessarily do the job; rather it is probably also the position and degree of responsibility that helps a potential entrepreneur to learn the skills and make the contacts needed for a successful business venture.

It seems that prior work experience matters, yet research on particular industry-specific knowledge seems to be rather mixed, depending on the quality of work and industry experience. Further, a main challenge in interpreting the effects of prior work experience is to differentiate between three possible mechanisms. Is it the skills acquired, the networks or the access to business ideas that makes entrepreneurs with work experience run their firms better? Although these questions are very much intertwined, they do have different implications. However, research on the effects of prior work experience on enterprise upgrading has not been able to make a clear statement thus far regarding the mechanisms.

4.1.6 Summary

Empirical evidence shows that at the individual level, there are various factors associated with enterprise upgrading. However, these do not necessarily reflect classical theoretical assumptions about successful entrepreneurship (Schumpeter 1943; Knight 1921; Kirzner 1997). In summary, the following picture can be sketched out:

- *Behavioural characteristics*: Research has shown that only very few entrepreneurs are actually motivated by seeing an opportunity in the market; rather, most entrepreneurs need to set up a business due to missing alternatives.

- *Gender*: Most studies find male-owned enterprises to be significantly associated with firm growth; however, evidence on a causal inference is inconclusive. Although the developing-country literature often construes women entrepreneurs as being less likely than their male counterparts to seek firm growth, several researchers argue that this applies only to a subset of women-owned enterprises.

- *Age*: Similarly, evidence on the entrepreneur's age provides a mixed picture.

- *Education*: Although cross-sectional evidence on formal schooling is mixed in developing countries, it highlights that the most successful entrepreneurs are not necessarily the smartest kids at school. Rather, growth-oriented enterprises are led by entrepreneurs who come from certain trading and ethnic business communities that provide the sort of relevant business knowledge necessary to succeed.

- *Work experience and training*: Prior work experience matters to successful entrepreneurship; yet, evidence on industry-specific work experience is mixed.

Although the impact of different individual entrepreneur characteristics – such as motivation, gender and education – on firm-level upgrading should be strongly acknowledged, there is no point in developing a picture of an ideal entrepreneur without taking into account the embeddedness of enterprises in social networks and particular business environments. The latter factors are vital sources of motivation and risk-perception. Acknowledging the fact that there are more risks in developing countries may explain why, counter-intuitively to theory, opportunity entrepreneurs might be more risk-averse than wage workers (de Mel / McKenzie / Woodruff 2008). Moreover, considering the underlying motivations and embeddedness of women within tight family networks might explain why, on average, male-headed enterprises are more likely to succeed. Further, the content and quality of formal education and training as well as the quality of professional work exposure seem to be more important in explaining enterprise success than schooling, training and work experience *per se.*

4.2 Enterprise characteristics

The literature mentions several firm-level factors that are associated with enterprise upgrading. This section explores the characteristics of an enterprise that are not directly related to the background of the entrepreneur. In particular, the characteristics of age, location, sector and the founding process have been subjects of investigation in trying to explain an enterprise's growth process. However, other factors such as informality and a firm's absorptive capacity for knowledge have also been identified as dominant themes in the innovation literature. The following sections describe the above-mentioned characteristics in more detail.

4.2.1 Enterprise age

The developing-country literature is rich with evidence that the characteristic of an enterprise's age impacts on the structure, behaviour and growth propensity of a firm (Evans 1987b; Evans 1987a). Empirical evidence from developed and developing countries have

repeatedly shown that employment growth rates of enterprises decrease with age (Mead / Liedholm 1998; Liedholm 2002; McPherson 1996b; Evans 1987a; Parker 1995). This means that younger firms tend to upgrade via an expansion in employment more than older enterprises. This empirical observation has been interpreted through different theoretical lenses.

Some accounts, such as the "learning model" by Jovanovic (1982), have forwarded the explanation that older enterprises grow more slowly because managers have learnt their efficient size of operation over time. Younger and smaller enterprises face efficiency and financing constraints in the beginning of their operations, which result in slower growth in the beginning. Yet, these constraints are said to decrease following the start-up as businesses achieve minimum efficient scales and gain better access to financing. Yet, in contrast to start-ups, older firms are said to benefit from reputation effects, stable contracts and higher productivity (Banerjee / Duflo 2000). The general viewpoint is that, with increasing age, enterprises go through intense processes of organisational learning, bureaucratisation and structural change that eventually lead to an optimisation of their productive performance. This implies that as firms become older, the level of managerial sophistication increases, indicating that although older firms may not grow in size, they should grow with regards to turnover, profits and other indicators of firm performance.

The latter arguments are supported by empirical observations that older firms do not necessarily grow larger when they become older. Yet, in many developing countries, older enterprises are not found to be that much different from start-ups in terms of the nature of the business and its productive performance. Most MSEs in developing countries do not seem to follow a developmental business path that starts simple and eventually develops much more complicated and sophisticated processes of production. Rather, older enterprises share many characteristics with start-ups, but they have proven to have more experience and better business networks than their younger business peers. A major explanation could be that owners of older and larger enterprises may lack further motivation to grow their businesses or hire more workers once they achieve their original objectives and goals. Consequently, older entrepreneurs may be reluctant to risk their current accomplishments by following other growth and investment strategies (Burki / Terrell 1998). Also, businesses may lack the strategic know-how for improving and developing their businesses further. This would also involve the lack of information on how to structurally transform the traditional production of manufactured goods or the provision of simple services into modern economic activities. Accordingly, empirical evidence in developing countries suggests that it is rather the capability of firm owners to modernise their businesses rather than the age of the firm that drives employment and productivity growth (Mead 1994a; Mead / Liedholm 1998; Hyman 1988).

4.2.2 Location

A business's location has also been mentioned as having an affect on growth dynamics of enterprises. Agglomeration externalities imply that urban-based firms will grow faster than those located in rural areas (Pyke / Sengenberger 1992; Pyke / Becattini / Sengenberger 1990; Sengenberger / Loveman / Piore 1991; Mead / Liedholm 1998; Piore / Sabel 1984; Sabel 1989). In particular, closely located agglomerations of small firms are said to benefit from strong supplier and buyer relations and economies of scale as well as

scope. Indeed, urban environments provide better conditions for the development of such successful agglomerations, as they are more competitive, diverse and dynamic. This is supported by Liedholm (2002), who found that rural-based enterprises grow more slowly than their urban-based counterparts. However, Mead and Liedholm (1998) found in another study that in most countries under study, over half of MSEs operate in rural areas.[4] Further, McPherson (1992) adds the insight to the urban-bias hypothesis that enterprises located in business districts tend to expand more than home-based businesses.

4.2.3 Sector

The sector in which an enterprise operates also significantly affects the propensity to upgrade. Firms in different sectors face different product demands, as well as being different on the cost side (e.g. inputs are more or less costly to obtain; competition is more or less stiff). Therefore, if we intend to consider a group of heterogeneous MSEs, we must allow for differences in sectors. MSEs are primarily engaged in commerce; however, small manufacturing does constitute a significant part of the small enterprise sector (Mead / Liedholm 1998). Most manufacturing activities are located in the textiles and apparel industries, food and beverages industry, and wood and forest production. Several scholars have found that enterprises involved in "trading", or retail shops, were found to be less inclined to upgrade as compared to businesses involved in manufacturing and service sectors (de Mel / McKenzie / Woodruff 2008; Mead / Liedholm 1998). Yet, whereas sectoral differences in the likelihood of upgrading were found to exist at the country level, there is no universal sectoral growth pattern at the cross-country level (Parker 1995; Cabal 1995). Accordingly, looking at firm dynamics within a country across specific sectors can tell policy-makers a lot about where to advocate competitive industries, yet economic sectors *per se* do not determine whether enterprises upgrade or not.

4.2.4 Informality

Informality is a phenomenon that refers to enterprises that are involved in income generation from the production of legal goods and services, but are not formally registered. Schneider reports that these informal producers contribute up to 40 per cent of the national GDP in developing countries (Schneider / Enste 2000; Schneider 2006). Further, this percentage is said to be growing in many countries (World Bank 2007). Informal employment is widespread in many developing countries, although the levels of informal and non-agricultural employment vary substantially across regions with a share of 55 per cent in Latin America, 45 per cent to 85 per cent in Asia, and up to 80 per cent in Africa (ILO 2004a).

Yet, these numbers have to be read with caution. In reality, the bifurcated categorisation of the informal vs. formal is never clear-cut and a large grey area with flowing boundaries exists between both sectors. Nevertheless, in terms of sheer magnitude, the figure of unregistered enterprises frequently outweighs the number of formal enterprises.

4 The share of all enterprises in urban locations – cities and towns with at least 20,000 inhabitants – reaches as high as 46 per cent in the Dominican Republic and 30 per cent in Zimbabwe, but was 25 per cent or less in all other countries (Botswana, Kenya, Lesotho, Swaziland, South Africa).

Accordingly, the informal economy is the main provider of livelihoods and jobs for the poor. Though this does not mean that everybody in the informal economy is poor, necessity entrepreneurship is common. Consequently, informality is often perceived to be a characteristic of micro entrepreneurs in developing countries. A joint report of the International Labour Organization and the World Trade Organization find that self-employment is associated with informality in more than 50 per cent of all cases, whereas working for small enterprises with fewer than five employees decreases this risk to around 30 per cent (ILO / WTO 2009). McPherson and Liedholm's (1998) study in several African countries shows a strong link between informality and one-person, rural and woman-led businesses. Further, informality rates among micro entrepreneurs are shown to be highly persistent over time (ILO / WTO 2009).

There is overwhelming evidence that being informal limits the growth prospects of enterprises. The vast numbers of sub-scaled and sub-skilled businesses that produce substandard goods and services in the informal sector drive competition to a destructive level (La Porta / Shleifer 2011). Attempts to avoid the competition conundrum by investing in more capital or skill-intensive economic activities are structurally hampered by the lack of property rights and tenure insecurities. Apart from these vulnerabilities, many public and financial services are generally segmented along formal and informal lines. Informal enterprises face even greater difficulties than their formal counterparts in accessing formal credit and assistance from law enforcement agencies and courts. Further, business opportunities with international buyers or government bodies cannot be pursued because informal firms lack the legal and/or scale requirements in order to participate in formal contracts. Not only does informality in itself reduce the opportunities for growth, but also it is associated with several other characteristics that make growth difficult (Mead / Morrisson 1996). Even if access to credit and property rights is given, many informal entrepreneurs lack the necessary education, technical knowledge and management experience to grow.

For these and other reasons, informal MSEs could be less efficient and more slow-growing than formalised enterprises. There are several studies that have pointed at the divergence in efficiency levels between informal and formal firms (de Paula / Scheinkman 2008). Adopting an econometric approach using data from Côte d'Ivoire, Sleuwaegen and Goedhuys (2002) find a positive effect of formality (registration) on firm growth while controlling for size, age and efficiency of firms.[5] The study suggests that formal firms are more efficient because they access a larger pool and variety of production factors and suppliers.

There has been a long debate about *why* entrepreneurs and their enterprises stay informal. Proponents of de Soto's arguments point at the costs, time and effort of formal registration and explain that, due to red tape and taxation, enterprises would rather stay hidden in the informal sector than register (de Soto 1989). For this approach, staying informal is a rational decision of dynamic opportunity entrepreneurs to avoid compliance with cumbersome government regulations (Maloney 2004). In contrast, structuralists argue that informal entrepreneurs do not choose to stay informal, rather informality reflects a second-best option for entrepreneurs with limited opportunities (La Porta / Shleifer 2011; Tokman

5 In particular, Sleuwagen and Goedhuys are using an instrumental variable approach in order to provide indicative evidence for causality that spans from registration to firm growth.

2007). Of course, there will be a minority of opportunity-driven entrepreneurs with viable business ideas and necessary capabilities who might not choose to formalise due to the recurrent costs of being formal and the low perceived value of the benefits of formalisation (Nelson / de Bruijn 2005). However, there is much agreement that informal businesses are driven by a survivalist logic, whereby typical entrepreneurs lack the access, knowledge and capabilities to participate in the formal economy (de Mel / McKenzie / Woodruff 2008).

Although many policy approaches, such as those of the *Doing Business*[6] paradigm, promote formalisation as a tool for private sector development, it is unclear and very unlikely that formality *per se* leads to higher efficiency and enterprise growth. Registration as such is irrelevant as long as micro entrepreneurs face other, more severe constraints. This view is supported by a study implemented in Mexico surveying informal MSEs about the reasons for non-registration (McKenzie / Woodruff 2006). McKenzie and Woodruff find that 75 per cent of informal micro firms report that they are too small to make registration worthwhile. This suggests that, for most small firms, registration costs may be, at best, a marginal contributor to informality and that formality itself is not important from the point of view of micro-enterprise growth. Further, Levenson and Maloney (1998) argue that the structure of many informal enterprises may dictate that they never grow large enough to take advantage of business regulations and legal frameworks (Jaramillo 2009). Family firms with one employee may not need to risk pooling mechanisms, their client base may be neighbours, and their small steady size may make credit institutions relatively unimportant. As a consequence, much of the association between firm efficiency and formalisation is likely to result from a selection bias, whereby the correlation of formality and productivity is driven by the underlying characteristics of the enterprise. This indicates that there are different segments of informal enterprises, of which the majority of MSEs will not increase their productivity and grow once they have registered.

4.2.5 Absorptive capacity

Absorptive capacity is a key concept originating from the business management, innovation and technological-capability literature. It describes the ability of a firm to identify, evaluate and exploit external knowledge for commercial ends (Cohen / Levinthal 1990; Zahra / George 2002). In contrast to dynamic capabilities of firms, absorptive capacity explicitly focuses on technical-knowledge acquisition, whereas the former uses a broader understanding of know-how, e.g. on financing and marketing (Wetter / Delmar 2007). Against the background of rapidly changing economic environments, technologies and market rules, the capacity to integrate and make use of both technological knowledge and market information has become crucial for firm competitiveness. In particular in developing countries, where most of the technological catching-up processes are taking place, firms have to take advantage of already existent know-how by leapfrogging up-to-date production technologies and organisational patterns.

6 The *Doing Business* reports are a World Bank Publication series that aims to provide objective measures of business regulations for local firms in 185 economies. More information available at: http://www.doingbusiness.org/.

Absorptive capacity is based on a firm's prior knowledge, meaning the knowledge of individual workers in addition to the tacit knowledge embodied in a firm's structures, e.g. units, work division, etc. (Lane / Lubatkin 1998). The process of absorbing information and building knowledge is a cumulative – and therefore highly path-dependent – process (Cohen / Levinthal 1990; Schmidt 2005). The idea is that if a firm stops to absorb external knowledge, it may not be able to recognise the value of new information and consequently lose out on profitable business opportunities. Consequently, firms with low absorptive capacity will lag behind other firms and never catch up with competitors. In summary, the enterprises' organisational antecedents matter.

Innovative firms need strong information-processing abilities to ensure constant learning. "Learning" firms entail participative structures, feedback loops and many other absorption and reflection mechanisms to foster the ability to process and digest external knowledge (Brown / Duguid 1991). Although integrating structures for knowledge management and information absorption are at the core of developing high levels of absorptive capacity, the quality of information that is absorbed by a firm is strongly dependent on the workforce and the firm owner.

These conceptual considerations suggest three ways of how absorptive capacity can be practically generated: (1) through investments in research and development (Zeng 2001, 499–528), (2) through training of personnel and other human capital investments, or (3) as a by-product of coordinated ongoing operations (Cohen / Levinthal 1990). These mechanisms suggest three different ways of how firms learn, such as learning through investments in R&D, learning through training and external human capital acquisition, and learning by reflecting on ongoing operations. Of course, all types of learning are intertwined; however, a major difference lies in whether a firm actively plans the learning process or whether it is seen as a by-product. Those forms of learning that allow for a more structured and systematic process of knowledge acquisition, assimilation and exploitation will increase the likelihood of innovation and, hence, enterprise upgrading. As a result, higher levels and more systematic approaches to screening and exploiting external information should be associated with enterprise upgrading.

In Cohen and Levinthal's empirical work, absorptive capacity is defined as the outcome of prior knowledge and the intensity of R&D run by a firm (Cohen / Levinthal 1990; Cohen / Levinthal 1989). In line with that, absorptive capacity is usually operationalised as the existence and/or the level of a firm's R&D spending and its human capital stock. In particular, quantitative indicators mainly used in the literature are the number of researchers in proportion to other staff members; the number of laboratories or the intensity of interactions with universities; the level of investments in training and human capital; and/or the number of registered patents (Giuliani 2002; Giuliani / Bell 2005; Lin 2003; Leahy / Neary 2007; Zahra / Hayton 2008).

In advanced economies, absorptive capacity has been shown to be associated with economic and innovative performance. Firms with high levels of R&D expenditure and a well-educated workforce have, on average, shown themselves to be more innovative and productive (Storey 1994, 145). Yet, this does not mean that R&D necessarily leads to innovation and increases in profits. Looking at innovation research, the relationship between research inputs and different measures of firm output seems to be poorly understood. Empirical research has produced mixed results regarding the direct impact of R&D on a

variety of firm measures (Geroski / Machin / Reenen 1993). Although there are some studies that find firms with high levels of R&D to be, on average, more profitable than those without, there is also research showing that R&D investments do not necessarily lead to higher profits (Schmidt 2005). This is because firms may need to cover the costs associated with R&D without being able to benefit from its commercial exploitation due to ineffective patent protection and fierce market competition. Further, absorptive capacity has not been found to have a stable association with employment growth (Wetter / Delmar 2007). This would explain observations in which technological advances lower rather than increase the demand for workers.

Yet, although the impact of individual R&D efforts on firm outputs is controversially debated, innovation research has shown that new knowledge-creation is driven by complex and systemic interactions between large and small firms as well as participating research centres, universities and government agencies (mostly referred to as the "Triple Helix" of university-industry-government relations (Lundvall / Johnson 1994; Etzkowitz / Leydesdorff 2000). In order to make use of these joint research ventures, a high level of absorptive capacity is an essential quality to incorporate external knowledge and advance a firm's innovation capacity.

Although absorptive capacity is a powerful concept in understanding how innovations occur, empirical approaches have been confronted with methodological challenges in using the concept (Camisón / Forés 2010; Bosch / Volberda / Boer 1999; Spithoven / Clarysse / Knockaert 2011). In particular, the concept's operationalisations have received a lot of critique (Lennox / King 2004; Schmidt 2005). First, the dominant practice of using only quantitative indicators ignores the qualitative dimensions of the concept. Although a firm's capacity to identify and make use of knowledge is strongly related to an enterprise's mechanisms and structures of learning, only a few studies have looked at differences in learning structures (Bosch / Volberda / Boer 1999). Here, qualitative indicators, such as the existence of specific organisational units and knowledge-management structures, as well as external and internal communication strategies, are better designed to capture the notion of absorptive capacity (Lennox / King 2004; Schmidt 2005; Brown / Duguid 1991). Second, some of the proxies used for absorptive capacity, such as the number of registered patents, are simultaneously used as proxies for an enterprise's innovative performance. This introduces problems of endogeneity and raises questions about the internal validity of many studies. Third, the above-mentioned indicators used for capturing absorptive capacity are less useful when looking at small young firms in developing countries that have no established R&D units or other similar structures of knowledge management. Yet, there *is* variation among developing countries' firms in their abilities to make use of external knowledge.

In particular, research in developing countries has focused on the varying capacities of supplying firms to adopt and adapt to foreign technologies and standards. Overall, technological absorptive capacity in the developing world is still weak and needs to be strengthened (Bell / Albu 1999; Lorentzen 2005; Macpherson / Holt 2007). The majority of micro and small enterprises have limited technical capabilities in using traditional technologies and largely replicate business activities in their nearby environments. These enterprises are too small to have separate R&D units, do not actively seek to innovate and instead would rather learn by doing. Accordingly, their absorptive-capacity levels are quite low and a by-product of their daily operations (McCormick 1999; Knorringa 1999;

Nadvi 1999; McCormick 1997). The capacity of developing countries' firms to absorb technologies has been largely limited by low levels of technical literacy, the uneven spread of access technologies (such as electricity and telephones) and the low penetration of technologies in rural areas (Altenburg / Meyer-Stamer 1999).

If a firm has low levels of absorptive capacity, it has to develop a strategy to work around the knowledge constraint. There are different ways to do that. Firms can develop their absorptive capacities through research and development (Zeng 2001, 499–528) and training. Yet, due to low "in-house" knowledge levels, most of the opportunity-driven micro and small firms in developing countries will rely on third parties to build their absorptive capacity over time. In this context, the interaction and linkages with more advanced firms are a big advantage. Firms with a weak knowledge base and weak skills require "gatekeeper" firms, which transfer knowledge across firm boundaries (Giuliani 2002; Giuliani / Bell 2005). Therefore, a strong network of internal and external inter-firm relationships increases the likelihood of innovation. As the performance of production clusters seems to be related to linkages with other firms – often international buyers – this hints at the particular role of external knowledge gatekeepers in developing a supplier's absorptive capacity and technological capabilities over time (Gereffi / Humphrey / Sturgeon 2005; Altenburg 2000; Knorringa 1999; Tewari 1999).

Qualitative studies from the 1990s have shown that clustered firms with foreign linkages showed higher levels of absorptive capacity and developed technological capabilities that did indeed help traditional production clusters to survive and upgrade (Bell / Albu 1999). This supports the "gatekeeper" strategy of knowledge acquisition; yet, the "cognitive" entry barriers for that kind of strategy is already quite high. Many small firms will lack the modern technological knowledge to begin. The fit between buyer-supplier relations is important to generate long-term benefits for both parties. Business ideas and technological developments, especially for small firms in developing countries, might be too distant from the existent knowledge base of more advanced firms. Learning is then a crucial part in the catching-up process, since knowledge has tacit elements that do not allow for the easy transfer of foreign technologies (Polany 1967).

The emphasis here then is to understand how and when individual entrepreneurs and small enterprises can learn most effectively in order to obtain and apply the "absorptive capacity" that will allow their businesses to grow (Bessant et al. 2005, 32). Although a catching-up process in acquiring missing knowledge is possible, these later investments might be more expensive, and sometimes firms that do not manage to learn fast enough might get locked out.

4.2.6 Summary

Regarding empirical investigations of firm-level characteristics on enterprise upgrading, the following insights can be gained:

- *Enterprise age*: Although many theoretical explanations have been forwarded to explain the relationship of firm age and business performance, the evidence seems to be inconclusive. There are a significant number of studies that have identified high growth among firms with a variety of age and size combinations. In developing

countries, age does not seem to be a strong factor in explaining enterprise growth and upgrading.

- *Location and sector*: Empirical observations suggest that manufacturing and urban enterprises are more likely to grow and innovate than enterprises located in retail (e.g. vendors) or in rural areas. With regards to sectors, the enterprises involved in trading were found to be less likely to grow than compared to businesses involved in the manufacturing and services sectors; however, no universal pattern across low- and middle-income countries can be distilled.

- *Informality:* Although informality goes along with certain barriers to enterprise development (e.g. credit constraints), empirical evidence suggests that registering MSEs will not unleash expected growth potentials. Although a strong correlation between formality and higher growth rates exists, one should not infer that formalisation *causes* higher growth rates (La Porta / Shleifer 2011). This points at the fact that being informal is not a binding constraint for enterprise upgrading. Rather, empirical observations support Tokman's view that informal firms differ structurally from formal firms in far more aspects than just registry status (Tokman 1978).

- *Absorptive capacity:* Research on absorptive capacity highlights the role of technical know-how in making enterprise upgrading happen. Firstly, this requires access to knowledge and, secondly, the ability to make use of that knowledge for firm operations. The latter seems to be essential for long-term growth and enterprise upgrading. Accordingly, an important part of researching absorptive capacity includes looking at organisational structures and individual capabilities that increase innovation activities at the firm level. In developing countries, these capacities seem to be developed and strengthened within linkages to larger – very often foreign – firms. Yet, despite knowing that a high level of absorptive capacity is important for firm performance, little is known about how micro and small firms go about identifying and exploiting relevant external knowledge. This research area holds potential for explaining why some MSEs might succeed in upgrading whereas others fail.

4.3 Business and social networks

Research has shown that inter-firm and interpersonal networking plays an important role in the process of enterprise creation and growth (Aldrich / Zimmer 1986; Granovetter 1982; Birley 1985; Johannisson / Nilsson 1989; Meagher 2010). Constant interchange with other firms and people enables firms to understand and keep up with up-to-date technology and further broadens the access to capital, markets, business opportunities and information. In view of that, networking is primarily a means of raising required resources, such as financing, knowledge and emotional support, yet it further creates room for learning and adjustment. Efficient and effective networks therefore help to accelerate the start-up of new enterprises, while also spurring their growth and innovation capacity. However, networks can also hinder enterprises from reaching their full potential (Grimm et al. 2011; Altenburg / Meyer-Stamer 1999).

Networks can be categorised in two ways: first, inter-firm or professional networks, such as those between a firm and its buyers, suppliers and competitors that solely relate to the business; second, social and interpersonal networks of firm owners, such as family, friends and acquaintances. Whereas professional inter-firm linkages seem to be more relevant for advanced small and medium enterprises, micro entrepreneurs very much rely on interpersonal contacts and social networks to start and grow their businesses. The following section looks at the mechanisms at work that are helping or hindering small businesses in networks to overcome typical growth constraints.

4.3.1 Inter-firm linkages and value chains

Individual firms are found to foster horizontal as well as vertical linkages with other firms. Horizontal linkages describe the relations between similar firms, whereas vertical linkages describe a firm's forward and backward linkages with buyers and suppliers. Both types of linkages are found to influence a small enterprise's propensity to upgrade.

Much research on horizontal inter-firm linkages and their benefits for small-firm manufacturing is related to the analysis of production clusters or industrial districts in developed and developing countries. A cluster is defined as a group of firms specialised by sector, located in close geographic proximity, and comprised of mostly micro, small and medium-sized enterprises (MSMEs). This line of research asks how "collective efficiency", namely horizontal cooperation and competition, affects the innovation capacity and competitiveness of firms located in clusters (Schmitz 1995a).

Further, research has evolved around the issue of the vertical integration of production clusters and firms into global value chains. Value chains are vertical linkages that connect economic actors, buyers and suppliers along a specific product chain: from the input, manufacturing, branding and marketing to the final stage of consumption and disposal (Kaplinsky / Morris 2001, 4). Due to trade barriers, global value chains are seen to be the major mechanism through which developing countries' producers engage in trade with developed countries (Gereffi 1994). Prominent themes in this strand of research have been the organisation of global economic production and distribution processes as well as the opportunities for growth and upgrading of suppliers in emerging and developing economies (Gereffi 2002; Altenburg 2006b; Boomgard et al. 1992; Humphrey / Schmitz 2000; Porter 1998).

Whereas collective efficiency perspectives have shown that horizontal linkages help to create tight local cooperative networks and competitive dynamics that overcome growth constraints and spur the innovation capacities of small firms, global value chain analysis has highlighted the role of external linkages that integrate local firms into global markets and new power relations (Gereffi 2002; Humphrey / Schmitz 2004; Bair 2005). However, how particular horizontal and vertical networks affect innovation capacity and upgrading trajectories of specific firms and clusters as a whole cannot be answered on generalised grounds. Empirical research indicates that the *quality* of inter-firm networks, power relations and also industry-specific entry barriers exert influence on a firm's propensity to upgrade.

What global value chain and cluster approaches have in common is the premise that, for enterprise upgrading and enterprise learning to occur, access to markets (whether

international or national) is essential. This point has been most strongly articulated in the study of Indonesian micro-enterprise clusters (Weijland 1999). As in this case, the absence of effective inter-firm networks has left micro- and small-scale producers invisible to other market participants (Altenburg / Meyer-Stamer 1999). It should also be mentioned that networking *per se* does not promote firm upgrading; instead, networks function as catalysts for several mechanisms to unfold. Drawing on the literature on industrial clusters and value chains, the following two paragraphs look closely at these mechanisms within horizontal and vertical inter-firm linkages.

4.3.1.1 Horizontal linkages

There are two main mechanisms through which horizontal networks primarily enhance firm growth and innovation. These are: economies of scale, inter-firm cooperation and competition.

Economies of scale

That benefits arise from clustering and horizontal linkages among firms in industrial districts is not a new insight. The emerging positive externalities of grouped firms were already highlighted by Alfred Marshall (1920). Evidently, the collective approach lowers the transaction costs that would occur to the individual enterprise. In that sense, clustering within sectoral and geographical patterns facilitates several developments such as the division and specialisation of labour; the emergence of a large network of suppliers; the manifestation of agents who sell to and buy from distant national and international markets; the emergence of a broad spectrum of specialised services; a specialised, skilled pool of workers; and the formation of local business associations.

The clustering phenomenon has been documented in several in-depth case studies in Latin America (Giuliani / Pietrobelli / Rabellotti 2005; Rabellotti / Schmitz 1997; Humphrey / Schmitz 2000; Schmitz 1998; Visser 1999), Asia (Knorringa 1999; Nadvi 1999; Tewari 1999; Cawthorne 1995) and Africa (Yoshino 2011; Meagher 2010; McCormick 1999; McCormick 1997). In these case studies, clustering strategies proved to overcome common entry and growth barriers for small enterprises, such as difficult access to technology, inputs, markets, information, specialised skills, credit and external services. Furthermore, geographical agglomeration within clusters not only improves and widens the access to production factors, but it also enhances the economic visibility of small-scale producers for foreign direct investment or global buyers that might source from these clusters.

Inter-firm cooperation and competition

Inter-firm exchanges are found to have positive effects on enterprise upgrading, namely through *coordination, competition* and *learning effects.*

- *Coordination effects* describe the increase in benefits or disadvantages that individual enterprises experience from a particular activity when others adopt the same activity. Arguments for inter-firm cooperation build on the notion that linkages within a cluster are commonly based on similar cultural backgrounds where information and knowledge are predominantly diffused through informal relationships. Further, it

assumes clustered firms work on the basis of horizontal linkages, through which they share production stages such as input creation, manufacturing and further complementary services. This type of industrial organisation is said to promote arrangements of flexible specialisation between enterprises of different sizes, thereby leading to overall competitiveness (Brusco 1982; Piore / Sabel 1984).

This implies high levels of interdependence and a strong need to coordinate production collectively. Joint coordination can produce *positive network externalities*, as found through coordinated technology adoption for the compatibility of production, or joint investments in infrastructure and intermediate goods (such as electricity provision). As a result, clusters very often inaugurate formal forms of organisation through business associations and other bodies that represent their interests: to promote their products at local and international trade fairs, to organise the cluster's presence in exhibitions as well as to foster technological learning among members. In particular, the formation of industry and trade associations can provide quick access to industry-related information and also offer the opportunity to address joint-growth bottlenecks with industry peers.

However, it is also possible that collective action has *negative network externalities*, such as lobbying for extensive protective measures for uncompetitive industries, the establishment of cartels and price agreements. Yet, this does not mean that coordinated political lobbying for certain measures is counter-productive as such. Rather, micro and small entrepreneurs on their own do not have the critical mass to lobby local authorities or politicians for support and, therefore, experience a severe disadvantages compared to larger firms and conglomerates. Grouped together, smaller firms have a bigger stance in influencing the political agendas of community or state politicians, which can then be urged to listen to the problems and needs of MSMEs. Yet, cooperation between firms does not exclude competition among these firms. This competition is, in fact, crucial to prevent uncompetitive firms from protecting their rents through "coordinated" protection, namely monopolistic activities, e.g. collusion on pricing.

- *Competition effects:* Collective efficiency perspectives as formulated by Schmitz (1995a; 1998) have highlighted the importance of competition effects to spur innovation capacities and long-term competitiveness. This is supported by several case studies showing that enterprise efficiency and innovation capacity are driven by both collaborative and competitive relations within clusters (Nadvi 1999; Rabellotti 1999; Rabellotti / Schmitz 1997; Knorringa 1999; Tewari 1999; Humphrey / Schmitz 1996; Schmitz 1998). Due to knowledge-spillovers occurring in clusters, firms are constantly pressured to invent and update products and processes in order to cater to buyers' needs and wishes better than their competitors (Porter 1998). Though rivalry within clusters can be very fierce, this does not mean that these firms cannot act collectively on growth bottlenecks, such as the access to certain inputs, markets, the training of suppliers and the development of infrastructure. Yet, not every kind of competition necessarily leads to enterprise upgrading. Price-based competition may not spur the innovation capacities of firms, but rather result in downward pressures on wages (Cawthorne 1995)

- *Learning effects*: The most important positive externality of cooperation and competition can be the facilitation of learning and production of knowledge. First of all, the successes and failures of certain business strategies and technologies within a cluster indicate whether other firms should also invest in this new development or technology. Against this background, inter-firm networks may serve as a workshop for best practices. Secondly, the access to information on business management and market trends is crucial for the kind of learning related to the discovery and exploitation of business ideas. As a result, businesses might be in a better position to anticipate changes in the environment and react more quickly and efficiently as markets change. Thirdly, strong inter-firm linkages increase the amount of knowledge and information that can be accessed. However, these linkages may also provide practical advice on *how* to apply, use and adopt external knowledge. Central to the learning process is the adaptation of knowledge to local conditions and needs. This is because knowledge – especially its tacit elements – is never completely transferable from one context to the other. Firms will face different levels of difficulty depending on the type of knowledge, whether it is codified or tacit. However, within networks, enterprises can learn how to master, apply and adopt up-to-date technologies to local contexts.

  Within clusters, information and knowledge can spread just by observing others or through collaborative learning efforts between firms. Collaborative efforts in research and development are said to provide MSMEs with crucial information on technologies. This is supported by research showing that the organisation of joint vocational and technical education institutes, as well as the promotion of new technologies, has positively influenced a cluster's supply with educated personnel and its capacity to catch up on technological innovations (Tewari 1999). Very often, advanced production clusters invest in joint R&D facilities or cooperate with universities to help build competitiveness, since smaller companies on their own cannot afford to run their own R&D departments (Cawthorne 1995).

  However, since relations among horizontal linkages are characterised by competition as much as they are by cooperation, there are some bottlenecks for joint research efforts. Although larger firms encourage knowledge dissemination among their suppliers, knowledge diffusion among competitors is mostly unwelcome. Research in the dissemination of agricultural technologies in Ghana shows that firms in networks might wait for somebody to make the first move to invest in new technologies or business models in order to see what works and what does not, without taking the risks of being the "pioneer" (Conley / Udry 2005). Thus, moral hazard is a typical problem when trying to change the technological and organisational status quo, as innovators are burdened with the costs of trials but might not be able to reap the full benefits. This insight provides the rationale for policy intervention in joint research and development.

  Though the danger of copying practices exists among clustered enterprises, research on wine production clusters in Chile indicates that knowledge is not as easily diffused among firms as initially assumed. The conventional knowledge-spillover thesis assumes that clustering *per se* influences the learning behaviour of firms. Yet, knowledge-flows within the cluster have proven to be highly structured (Giuliani / Bell 2005). Knowledge-flows are most intense within a core group of firms characterised by advanced absorptive capacities and a rich knowledge base. This

implies that within clusters, roles of firms can differ between those that contribute actively to the acquisition, creation and diffusion of knowledge, and those that remain cognitively isolated from the cluster (Giuliani / Bell 2005).

A main reason for the selectivity of knowledge-flows and learning spillovers is found in the different roles and capacities of enterprises absorbing and using knowledge within networks (Giuliani / Bell 2005). The knowledge base of the individual firm and its absorptive capacity influence its openness to external knowledge. Also, the establishment of knowledge linkages will depend on the individual firm's knowledge base. Once firms have learnt how to learn and run increasingly complex production systems, they will receive higher returns due to their knowledge base and its continued use. This is because with repetition, individuals learn how to use inputs more effectively and efficiently, and their experience is likely to spur further innovations with the product or in related activities. As a result, path-dependency makes it difficult for latecomer firms to jump on the bandwagon of innovation and upgrade without heavy investments in the firm's knowledge base (Altenburg / Meyer-Stamer 1999).

Further, even when horizontal linkages increase the likelihood of participating in collective learning processes, the similarities and dissimilarities of knowledge bases between firms constitute a considerable entry barrier to those network circles that promote innovation activities and learning (Lane / Lubatkin 1998). Those firms that do not have compatible knowledge bases will be isolated over time, since communication and interaction need to be based on a "similar" language. These dynamics result in structural segmentation within production clusters, but also lead to the specialisation of roles. Yet, whereas some firms might specialise in high value-added functions, other firms might be stuck with low-value activities, sub-optimal learning possibilities and little knowledge exchange, such as in packaging or assembly. As a result, it is questionable whether the idea of "flexible specialisation", as introduced by Piore and Sabel (1984), produces the innovation capacities and learning processes that the authors of the "Emilian economy"[7] had in mind (Brusco 1982).

Further, mechanisms such as coordination, competition and learning are strongly related to power relations within clusters. Indeed, including *power relations* into the analysis of horizontal linkages produces a differentiated picture about who, when and how cluster members coordinate, compete and learn from each other. Very often, small firm networks and large firm networks, as well as low-productivity and high-productivity firms, stay apart because of different knowledge bases, but also because it is not in the interest of knowledge producers to exchange their knowledge. This might especially be the case in particular industries, such as garments, where the sub-contracting and outsourcing of production stages ensure high rents for those firms that hold direct export-market access and crucial know-how. Research in the Indian garment clusters of Tiruppur has shown that the larger and more established firms within the cluster seriously restricted the entry of

7 The "Emilian economy", a notion based on studies of Italy's Emilia Romagna region, describes a model for economic development in which small and medium-sized enterprises develop the skills and capacities to adapt and react flexibly to current economic trends, with the result of a clear increase in employment and income rates.

smaller “latecomer” firms into more rewarding and more knowledge-intense production stages (Cawthorne 1995). In summary, in order to explain the context of coordination, competition and learning within a cluster, it is important to include the varying interests and power relations among cluster members.

4.3.1.2 Vertical linkages

Taking a value chain perspective, a firm can have vertical linkages that go forward to the buyer and backward to the supplier. Much has been written on the gains and disadvantages of vertical linkages in global value chains for local producers, in particular, when engaging with global buyers. There are two main arguments through which vertical linkages, in particular forward linkages, primarily enhance firm growth and innovation. These are access to *resources and markets*, and the *process of learning*.

- *Access to resources and markets*: Firms within clusters have diverse ways to connect to different markets. Sometimes they access markets directly, sometimes firms work as subcontractors supplying larger firms, and sometimes finished products are sold to domestic agents, wholesalers and foreign agents. Whereas many small companies depend on local and domestic markets, some MSMEs will be internationally oriented and either supply to larger and/or global buyers with finished products, or some will function as importers and suppliers of specialist materials. Contracts with larger firms or global buyers normally offer a stable flow of orders, which reduces the costs and risks for smaller firms when entering new (international) markets (Aw 2002; Humphrey / Schmitz 2000; Schmitz / Knorringa 2000). Further, global buyers might function as financiers of investments in new technologies and capital of their suppliers.

- *Process of learning*: Drawing on his work in East Asia, Gereffi applies the “learning” argument to global buyers and their sourcing networks. Vertical integration of local clusters into global value chains would provide opportunities for local producers to learn from global lead firms (Gereffi 1999). Against this background, *insertion* into GVCs not only constitutes a means to participate in global production networks with access to resources and distant markets, but it should also be seen as a “school” for suppliers (Schmitz / Knorringa 2000; Pietrobelli / Rabellotti 2004). This is because global buyers are interested in giving constant feedback on current market information, requirements and technologies so that suppliers meet global standards.

Many proponents of global value chain integration refer to these two arguments to promote vertical linkages between rural industrial areas and urban international markets (Kaplinsky / Morris 2001; Gereffi 1999; Gereffi 2002). In order to understand the benefits and drawbacks of (global) value chain integration, the issue of value chain governance needs to be addressed.

Value chain governance describes the power relations within a production chain that determine the division of labour between enterprises as well as their individual capacity to upgrade. Those enterprises that govern a value chain are defined as “lead firms”. Several waves of research on value chain governance have developed more and more nuanced typologies of value chain governance. Initially, Gereffi (1994) suggested the

differentiation between producer- and buyer-driven chains. Producer-driven chains are those in which manufacturers coordinate production networks and access technology and organisational rents, such as in capital- and technology-intensive industries – e.g. for automobiles, aircraft and other heavy machinery. In buyer-driven chains, production is a low-profit function, and therefore lead firms usually outsource this stage to subordinated firms, which subsequently compete within a decentralised system of a potential mass of suppliers. Accordingly, lead firms' main rents in buyer-driven chains occur through the relational management of supplier networks, strategic production alliances as well as through brand management. Further, international lead firms in buyer-driven chains gain policy rents through the use of protectionist trade policies within their industry (e.g. quotas). Typically, buyer-driven industries are labour-intensive and have low entry barriers, such as in apparel, toy, footwear, fruit and vegetable sectors (Humphrey / Schmitz 2000).

A large group of scholars point at the possibilities of upgrading local producers' capabilities once these have entered contracts with global buyers. Others highlight the role of entry barriers when trying to "move up", meaning to move from less-valued to higher-valued functions within buyer-driven chains. In particular, scholars have articulated concerns that, due to asymmetrical power relations, supplying firms may become trapped in a subordinate role of low value-added production with decreasing terms of trade (Gibbon 2004; Gibbon / Ponte 2005; Ponte / Gibbon 2005; De Neve et al. 2008). Generally, evidence suggests that local producers supplying to (global) lead firms enjoy considerable advantages in some types of chains, such as in upgrading product quality and process sophistication, but encounter barriers in other types, such as in functional upgrading.

Beyond the logic of producer- and buyer-driven chains, Humphrey and Schmitz (2000) have forwarded a governance taxonomy differentiating between "market-type" governance structures, in which the suppliers' prospects for functional upgrading are good, and "hierarchy-type" governance structures, in which suppliers can only take part when suppliers break away from this chain. A more nuanced differentiation of value chain governance was subsequently suggested by Gereffi, Humphrey and Sturdgeon (2005). They proposed three types of value chain: modular value chains, relational value chains and captive value chains (also discussed in Altenburg 2006c). Whereas modular value chain governance describes a relationship in which the supplier and buyer company are acting fairly independently from each other due to clear, definable trading deals, relational value chains indicate considerable grey areas and therefore rely on trust, reputation and mutual agreements. Finally, in captive value chains, supplier firms strongly depend on lead firms, because they have limited capabilities or know-how and constrained access to important markets. Gereffi, Humphrey and Sturdgeon (2005) specify three factors that increase or decrease transaction costs within a business interaction. Depending on the complexity of transferred information, the degree to which information can be codified and the capabilities of the supplier, economic relations will be characterised by a rather loose or tight governance approach.

The question that comes up with the introduction of such a chain-governance-based taxonomy is whether it contributes to the explanation of upgrading patterns. Altenburg (2006c) criticises the simplicity of factors that are suggested to determine chain governance and subsequently upgrading dynamics. As a result, he suggests an extended

list of factors that influence interaction patterns and power relations within a value chain, such as the market structure, the degree of economic uncertainty and risk, and institutional framework conditions. This draws a much more complicated picture of buyer–supplier relations. It is therefore intuitive that in assessing the role played by global buyers and global value chain integration for enterprise upgrading, various case studies come to different conclusions (De Neve et al. 2008; Gereffi / Humphrey / Sturdgeon 2005; Schmitz 1995b; Schmitz 1998; Tewari 1999). This heterogeneity implies that chain governance is partly affecting upgrading opportunities; however, it is one factor among many others. Further, upgrading might not only be influenced by the *quality* of chain governance, but also by the *number* and *diversity* of value chains in which local producers are integrated. Evidence suggests that local producers supplying to international lead firms might use their learning experience to apply their received know-how on national markets (Bazan / Navas-Aléman 2004). This has spurred growth for many suppliers who could have faced market-entry barriers to develop branded products in Europe and other geographically and culturally distant regions. Thus, the diversification of additional market linkages opens up more possibilities for (functional) upgrading, in particular in domestic and regional markets, where local and regional producers – compared to international lead firms – face far fewer information asymmetries and entry barriers in developing branded products and own marketing (Tewari 1999).

4.3.1.3 MSEs and inter-firm linkages

Most studies indicate that horizontal and vertical inter-firm linkages contribute to long-term firm competitiveness through individual and collective learning processes (Altenburg / Eckhardt 2006; Humphrey / Schmitz 1996; Schmitz 1995b). Yet, for learning processes to thrive, a simple rule applies. The positive dynamics of horizontal networking strongly depend on the quality of these networks, meaning the level of knowledge and skills they entail. Taking this into consideration, one will clearly see that a network among equally poor micro entrepreneurs is not delivering the above-mentioned benefits of horizontal linkages. Although networking among already successful and competitive medium-sized to large firms will further enhance their competitiveness, horizontal linkages between under-average performers – with little business knowledge and technological capabilities – will rarely pave the way to enterprise growth and upgrading. This is because exchanges may not entail the sort and quality of information and resources needed for learning processes and improvements to occur. There are simply only limited possibilities for MSEs to learn from each other. Accordingly, horizontal networking is not providing learning opportunities *per se* (Altenburg / Meyer-Stamer 1999).

Thus, research indicates that among micro and small firms that are still at an early stage of development, vertical linkages with medium or large-sized buyers are more likely to initiate product and process upgrading, even though these value chains might be categorised as “captive”. Vertical linkages are more likely to expand a micro or small enterprise’s capabilities and learning possibilities, which in turn increase business and growth opportunities, either in international or national markets (Altenburg 2006c; Schmitz / Knorringa 2000; Gereffi / Humphrey / Sturdgeon 2005; Giuliani / Pietrobelli / Rabellotti 2005; Bazan / Navas-Aléman 2004). Especially larger and globally operating buyers might offer training, technical information and other forms of assistance to

suppliers to ensure products are delivered in good condition and in a timely fashion (Berry / Rodriguez / Sandee 2002; Daniels 1999; Nadvi 1999; Tewari 1999).

Yet, (international) buyers may be reluctant to source from micro and smaller firms due to the missing quality standards and insecurities with regards to deadlines, flexibility and learning abilities. Accordingly, intermediaries such as medium-sized enterprises are needed that bridge the gap between supply-side capabilities of small producers and demand-side requirements of global buyers (Yumkella / Vinanchiarachi 2003). As a result, initially, a major challenge for MSE upgrading is the establishment of linkages with medium-sized companies, which in turn allow for incremental diffusion and adaptation of their suppliers' production know-how.

4.3.2 Social networks

Whereas the use of inter-firm linkages is common among medium and large enterprises, the majority of micro and small enterprises rely mostly on social and interpersonal networks to access financial resources and knowledge. A major theme in social network research is that of social capital. The latter is simply defined as the norms and ties that enable people to trust each other and act collectively (Portes 1998). Social capital can be based in the firm owner's family and friends, but also result from shared experiences, purposes and beliefs across communities and larger societal groups. Accessing social capital among similar or quite homogenous networks, such as family and friends, is very often described as "bonding", whereas "bridging" describes collective action that arises across heterogeneous groups in society (Putnam 1995). Bonding builds upon the common interests and collective strength of in-group membership to exercise collective agency for common ends, whereas bridging uses this trust between dissimilar vertical and horizontal linkages to build collective identities (Aldridge / Halpern / Fitzpatrick 2002).

Family members, friends and other social contacts constitute important assets in firm upgrading. In developing countries, where market failures are most prevalent, tight social networks constitute the primary source of financing, advice and support for micro and small entrepreneurs. Especially when states are unable to provide basic services, social capital based on family relations and kinship provides a cushion against hard times. Further, if formal institutions, e.g. courts and regulatory bodies, are absent or weak, tight social relations can help to regulate business transactions. This can be facilitated through informal institutions such as trust, which reduces transactions costs, or reputation, which helps to enforce contracts.

Research on the private sector in developing countries has shown that successful MSEs very often arise from particular ethnic groups or classes in society. In a cross-country study on entrepreneurship, Leff (1978) finds that economic power is very often concentrated among ethnic groups. For example, Taeube (2004) analyses the societal composition of the information and technology centres in Bangalore, Hyderabad and Chennai and finds that the industry is largely controlled by Brahmins – traditionally the priestly and knowledgeable caste. The positive attitude towards education and learning among the caste of the Brahmins is very likely to have had a positive effect on the development and infrastructure of the evolving software industry in this region (Taeube 2004).

The positive effects of tight social networks have also been most instructively described by Romijn (1997). In her study in Pakistan, she shows how social networks foster cooperation among agricultural firms in Punjab to develop and improve technology. Moreover, the informal and embedded nature of entrepreneurship has been most important for the making of Chinese entrepreneurs. Chan's study (2001) has been most intriguing in analysing how social ties among Chinese firms – the *guanxi* networks – reduce risk and uncertainty through a common code of conduct, values and norms. Accordingly, social relations are crucial for coping with increased complexity and insecurities when entering and delivering to foreign markets while simultaneously expanding new product lines (Chan 2001; Chan / Chiang 1994). Also, Biggs and Shah show that social ties among business minorities increase the likelihood of privileged access to resources and minimise opportunism among members (Biggs / Shah 2006). In an analysis of the investment climate in sub-Saharan Africa, Eifert, Gelb and Ramachandran (2005) observe similar patterns.

Having a supportive network can be a valuable asset for individual entrepreneurs. However, the social and cultural embeddedness of entrepreneurship also holds various drawbacks for economic development (Hobday / Perini 2009). For example, studies in Kenya, Zimbabwe and Nigeria show how the embeddedness into strict social and political production networks can either limit or promote entrepreneurial innovation (Sverrisson 1993; Meagher 2010).

From the perspective of the individual entrepreneur, social ties can be a liability as well as an asset. This is because intra-household dynamics can pressure the entrepreneur to use his or her profits for consumption at the cost of maybe more productive investments, such as in new technologies or training. The requests from the entrepreneur's family for profit distribution are often found to be a common growth barrier for small-scale businesses in Africa and Asia, especially among women entrepreneurs (Grimm et al. 2011; Meagher 2010; Geertz 1978).

At the aggregate level, social networks can produce a sub-optimal environment for inclusive economic development. This is the case when social capital reproduces inequality. Where business networks are organised along social, ethnic or political lines, they have been found to be very exclusive. In sub-Saharan Africa, Fafchamps found that Ghanaian entrepreneurs preferred to do business with other businessmen from the same group or other extended social acquaintances (Fafchamps 2001). These exclusionary practices of in-group "bonding" can strengthen vertical patronage systems and cultivate nepotism in the interests of a family or group, thereby depriving members outside the group from equal opportunities in accessing goods and services. Observations in sub-Saharan Africa show that while there exists a specific entrepreneurial class that is leading the way, very often these entrepreneurial elites tend to obtain entrepreneurial opportunities in a way that prevents ethnic or social outsiders from entering certain markets (Fafchamps 2001; Meagher 2010). One rationale for discriminating against outsiders could be that increased social inclusion produces more work for group members as social obligations and the number of requests increase. It should be noted that social bonding results not only – or not even mainly – from economic considerations, but is most likely driven by common sentiments of intolerance, distrust and hate of other social groups (Putnam 1995).

These disadvantages of social networks have often been employed to explain failed attempts of enterprise growth and industrialisation in general. Restricting economic activities to certain social networks is likely to constrain entrepreneurial opportunities for economies of scale and scope, such as expansion in markets, specialisation and division of labour. However, it is very difficult to assess when social networks promote rather than harm enterprise development. "Bonding" and "bridging" in social capital will co-exist in every setting, yet their roles are different. This is not to say that one is good and the other is bad. Both mechanisms fulfil different functions at various levels and dimensions. Bonding is important to encourage trust and cooperation among groups with shared experiences and identities, e.g. women. But it can also strengthen the economic power of a few. If this social capital is not invested in productive activities or other social ends with a value for society, bonding produces negative externalities for "excluded" enterprises and affects economic performance overall.

Whereas bonding unleashes the collective action between a very narrow set of economic actors, it is bridging that widens the radius of economic interaction, knowledge diffusion and exchange between different social groups. Accordingly, these exchanges produce more possibilities for learning and enterprise upgrading. Indeed, research in Ghana found entrepreneurs with large and diverse social ties to be more productive than those without these contacts (Barr 1998). As a result, innovations are more likely to occur in an environment where bridging and bonding co-exist. Social bonding among certain groups should not prevent flows of crucial information and access to resources to be withheld from a wider society circle in general.

4.3.3 Summary

Inter-firm and social networks have various channels through which they can affect enterprise development. In particular, inter-firm linkages can positively affect enterprise development through coordination, competition and learning effects, whereas social networks can provide access to information, financing as well as offer emotional support. Yet, various pre-conditions have to be met to ensure that these networks foster enterprise upgrading. Looking at the role and dynamics of inter-firm and social networks, the following observations can be made:

For business or inter-firm networks:

- First, examples have shown that coordination and competition are important dynamics driving firm productivity in clusters. However, too much coordination and too much competition on their own have been shown to decrease the likelihood of enterprise upgrading in developing countries. Whereas very well-organised and coordinated businesses might end up establishing a protective shield against new entrants, especially MSEs, too much competition might create entry barriers to accessing qualitative "nurturing" networks that facilitate learning and access to markets.

- Second, not all networks within a cluster allow for learning and active participation. Within clusters there is a divide between firms that produce and diffuse knowledge, firms that are receiving information and resources, and firms that are part of a firm cluster but, however, cognitively isolated from the process of knowledge production

and diffusion. Knowledge-flows, learning and enterprise upgrading are therefore highly structured within networks. These structural differences derive from whether an enterprise can *access* relevant information and resources, whether an enterprise is *capable of absorbing* information and knowledge-flows, and whether these can *make* strategic *sense* of this knowledge for their own development. As a result, with respect to inter-firm linkages, it is not enough to be located in clusters and to have a large number of business contacts. Rather, the impact of horizontal and vertical inter-firm linkages on enterprise growth and upgrading depends on the *quality* of these linkages. Here, quality is to be understood as the usefulness of these networks to transfer resources, access information and provide members with mechanisms for coordinated action and learning (Giuliani / Bell 2005).

- Third, vertical linkages – in particular those to global buyers – have been shown to be conducive largely to learning and enterprise upgrading. However, the *type* of chain governance has been shown to have an impact on a supplier's upgrading likelihood. Although upgrading into a buyer's core functions might be problematic, most vertical linkages have been proven to increase an enterprise's ability to upgrade products and production processes. Thus, learning and innovation processes are very often connected to interactions with larger companies and foreign buyers. Although the *type* of chain governance has an impact on upgrading, it is also the *number* and *diversity* of value chains in which local producers are integrated that facilitate enterprise development (Bazan / Navas-Aléman 2004). Enterprises that follow a dual presence in national and international markets can apply newly acquired know-how in less competitive markets and, as a result, gain above-average profits compared to other national competitors with less international exposure.

Regarding the effects of social networks, various channels have been identified and proven to have an impact on enterprise development.

- First, at the micro level, bonding among family and friends has shown to be a way to pool resources, access information and gain emotional support. On the other hand, tight family ties may distract entrepreneurs from growing and investing in their businesses. The latter occurs when external shocks affect the (extended) household or if firm profits are generally expected to be contributed to family-defined goals.

- Second, at the sector and country levels, the social and cultural embeddedness of entrepreneurship can introduce business discrimination along culture, ethnicity and/or gender lines. Consequently, social networks only contribute to knowledge production and dissemination if these bridge several levels and groups of society.

4.4 The business environment

The overall business and regulatory environment is crucial to stimulate investments for both small and large firms (North / Smallbone 2000). The business environment includes the policy, legal and regulatory factors that provide the contexts and conditions for doing businesses. Macro-economic policy, trade policy, industrial policy, the tax regime and the government's general attitude towards the private sector and towards micro-, small- and medium-scale enterprises also shape business opportunities for MSEs.

However, although there is overwhelming agreement on the importance of these contextual factors for enterprise development, there is intense discourse among researchers and practitioners about what constitutes a "good" or "enabling" business environment. What is the optimal market and regulatory environment that spurs development of small firms?

There are few generally agreed upon characteristics describing what an enabling business environment should look like. Mainstream approaches deem mechanisms necessary for upgrading that ensure that market failures such as information asymmetries and moral hazard be levelled out. Further, markets need systems of contract enforcement, property-rights protection, consumer information and protection, as well as environmental regulation to ensure the internalisation of externalities. Regulatory frameworks have to keep concentrated market powers in check, mediate financial panics and economic turmoil, and also provide social safety nets. Moreover, for markets to work and business opportunities to arise, market actors need to access an infrastructure of transport, communication, logistics and energy. Most of these above-mentioned factors are outcomes of public investments. Hence, the performance of government bodies in ensuring the provision of these public goods and services is crucial for enterprises that are planning to upgrade their production systems.

Although it is difficult to define what an optimal enabling environment is, research in developing countries has tended to specify what it is *not*. Various reports and papers, most prominently the *Doing Business* and *Investment Climate* reports, have described developing countries' business environments as sub-optimal and full of institutional barriers, mostly due to over-regulation (World Bank 2013; World Bank 2011a). There exists a vast academic discourse on the relationship between institutions and economic performance. However, due to the limitations of this paper, only some aspects of the institutional and regulatory environment can be brought forward (Acemoglu / Aghion / Zilibotti 2006; Acemoglu / Johnson / Robinson 2001). The following sections describe some of the most salient factors and themes in more detail.

4.4.1 Macroeconomic and political stability

The attainment of a stable political and economic environment provides fertile ground for a flourishing private sector. Though there is a debate on which policy measures ensure macro-economic stability most effectively, most researchers agree on the overall importance of a stable inflation rate, stable growth and healthy public and private balance sheets for economic development (Ocampo 2005). Unsteadiness in the economy has been shown to affect private sector development, especially in developing countries. Researchers found that in a survey of 5,000 micro and small entrepreneurs in Ghana, the three most-mentioned problems were inflation, high interest rates for credit and the depreciation of the local currency (Robson / Obeng 2008). The relative price volatility has also been reported to be an issue for MSE growth in several other sub-Saharan African and Latin American countries (Tybout 2000). It seems that MSEs are more affected by inflation and exchange-rate volatility, as they have worse access to financial markets than larger firms. This is also reflected in an International Finance Corporation survey that included 10,000 firms in 80 countries, wherein these concerns were more often classified by those enterprises as being small (Schiffer / Weder 2001).

Indeed, it is intuitive that enterprises grow and upgrade more often in times of economic stability (Liedholm 2002). A stable economy provides a framework for improved performance. Macro-economic stability breeds higher levels of consumer and business confidence, ensuring a circular flow of goods and services. Stable, low inflation encourages higher levels of investment and helps in remaining price-competitive for exporters and domestic businesses facing competition from cheaper imports. Further, it encourages creditors to keep interest rates low, which is important for reducing the debt-servicing costs of businesses with loans. Moreover, a stable economy might attract inflows of foreign direct investment.

Without any doubts, macro-economic stability is a very important factor in explaining why and when enterprises tend to upgrade; yet, it is far too simplistic to leave it at that. It will not be enough to have a stable macro-economic environment for MSEs to grow in. The fine-tuning of regulation, legal and other policy measures have to be developed coherently and appropriately to the challenges that young and growing enterprises are facing.

4.4.2 Regulatory business environment

Recent work by the World Bank on private sector development has highlighted the role that economic institutions and regulatory policies play in affecting business outcomes (Djankov et al. 2002). The focus on regulation in a lot of recent academic and policy-oriented works is driven by the rediscovery that institutions matter for economic growth (Rodrik 2005; North 1992; Acemoglu / Johnson / Robinson 2001; Acemoglu / Johnson / Robinson 2002). This is because economic institutions shape the incentives of key actors in society, as they influence whether entrepreneurs register their businesses and access markets, whether they invest in physical or human capital, or whether they adopt new technologies or new forms of firm organisation.

It is now commonly acknowledged that the existence of mechanisms for property-right protection, contract enforcement and dispute resolution are crucial to ensure a consistent *modus operandi* for businesses in order to know and assess risks. Further, it is widely accepted that investments in education and health contribute to the overall quality of labour supply and are also important for development in general. Yet, there exists an old debate between neoclassical and structural approaches on whether extended public measures and regulatory policies will promote or hamper the private sector. Whereas neoclassical economics has tended to highlight government failures, more recent perspectives have critically examined market failures as being the main impediments for private sector development.

In particular, the *Doing Business* reports suggest that enterprises face an array of regulatory and institutional constraints hampering business activities (World Bank 2011a). It is argued that regulatory policies in most developing countries are burdensome, very complex and in some cases even used as opportunities to accept bribes. Informal small firms with low capital stocks and savings especially are not able to bear the costs of formalisation and continue to be excluded from public services and formal credit markets (Klein / Hadjimichael 2003; Beck / Demirgüç-Kunt 2006; Beck / Demirgüç-Kunt / Maksimovic 2005). Consequently, from that perspective, regulation is

mostly seen as a cost and deterrent for firms aiming at formalising or scaling-up productive activities (de Soto 1989). Therefore, governments should focus their activities on ensuring a stable and simple regulatory regime, introduce a fast and inexpensive business registration procedure, create more flexible employment regulations and lower corporate taxes (Klapper 2006; Klapper / Laeven / Rajan 2006; Klapper / Lewin / Delgado 2010; World Bank 2011a). In brief, the perspective of *Doing Business* assumes the state to be generally suspect, and therefore demands its gradual withdrawal from these activities.

To legitimate this view, scholars in favour of deregulation argue that policy-makers and planners only have a limited ability to understand the needs and constraints that MSEs face and will most probably distort markets, which in many ways will lead to losses in efficiency and productivity (Klapper 2006; Klapper / Lewin / Delgado 2010; World Bank 2011a). For instance, a prominent example of failed targeted support is an Indian state policy from the 1980s that designated some sectors as small-scale industries (Philipps / Bhatia-Panthaki 2007; Cawthorne 1995). Although policy incentives were set to promote employment growth, they actually discouraged MSEs from expanding their businesses beyond a certain size, whereupon they would lose their eligibility for benefits. Further, it is argued that even if targeted support is needed, the policy design of public intervention might not be effective in reaching out to the target group. For instance, although the small-scale designation of certain manufacturing sectors in India was intended to support MSEs, it actually subsidised vertically integrated firms, which would split up into several MSEs in order to make them look smaller (Cawthorne 1995). Accordingly, in this case policy-makers would probably be well-advised to minimise public involvement and deregulate (Klapper 2006; Klapper / Laeven / Rajan 2006).

Indeed, some institutions might be more efficient and effective than others in setting entrepreneurial incentives. However, although much research has shown that institutions matter, there is little standardised knowledge on which institutions matter across all countries (Eifert 2007, 42; Acemoglu / Aghion / Zilibotti 2006; Gørgens / Paldam / Würtz 2005, 16). Consequently, it is not proven that deregulation will automatically unleash entrepreneurial dynamics everywhere. Although excessive regulation is certainly problematic for businesses of all sizes and across all regions, no regulation at all neglects the fact that creating a business-enabling environment involves more than the simplification of procedures or the lowering of corporate taxes (Altenburg / von Drachenfels 2006; te Velde 2006).

In order to understand why some countries do not have thriving economic sectors, it is necessary to clarify why their institutions might be dysfunctional in providing the conditions for economic growth and enterprise upgrading. For this to happen, we should not only look at the costs of regulation but also at the perceived benefits of registration and formalisation for firms in developing countries. Evidence suggests that, in developing countries, it is the lack of perceived benefits that discourages informal enterprises from incurring the costs of registering (Arruñada 2007). Further, looking at the informal sector, most economic activities are undertaken by necessity entrepreneurs who act in low-quality, low-skilled and low-demand markets. Consequently, here the policy treatment would rather include the improvement of public service provisions and targeted training for potential opportunity entrepreneurs to improve quality and create linkages with larger, productive enterprises. Informed policy-makers should therefore

keep in mind that although informality is a problem, entrepreneurs in developing countries are confronted with a multitude of additional constraints to growth that hinder small firms from improving productivity. This could also mean that countries need more – instead of less – regulation depending on the kinds of growth constraints they face.

Business constraints change in relation to contexts and time. Whereas private sector development in high-income countries is driven by (frontier) innovation, businesses in relatively backward economies follow a developmental path of technology adoption and imitation. As a consequence, requirements of these businesses and binding constraints change during the process of economic development (Chang 2003). Institutions and regulatory frameworks need to adapt to these changing needs. Further, apart from specific private sector needs, appropriate measures will have to reflect the underlying political and socio-cultural conditions of economies (Altenburg / von Drachenfels 2006; Altenburg 2006a).

The fact that there are different types and causes of business constraints across countries is probably the main reason why there will be only little standardised know-how on what qualifies for effective business regulation (Acemoglu / Aghion / Zilibotti 2006). As a consequence, a standardisation of business regulation to a global benchmark will make only limited sense and, at worst, misguide policy-makers and planners in developing policy instruments for private sector development (Altenburg / von Drachenfels 2006). Rather, understanding the links between regulatory policies and enterprises' performance requires an understanding of different settings.

Knowing how regulation creates losers and winners is crucial to assess whether an institutional or regulatory reform will be successful or not. This has to do with informal institutions and underlying power structures. If formal institutional or regulatory reforms do not change the underlying political conditions while also having to compete with informal practices and institutions, reform attempts will very likely be hampered in their effectiveness. Further, even when setting up new and appropriate regulatory frameworks, it is important to take into account public administrative capacities, since a good policy design does not automatically translate into an optimal policy implementation. Understaffed and overwhelmed bureaucracies will not be able to cope with complex regulations. The world's wealthier economies – those with the most productive market systems – also have large public sectors, yet every economy has to find their optimal governance mix of government-led and market-led mechanisms to tackle business constraints and promote productivity and growth.

4.4.3 Competition

The literature supports the idea that increased market competition leads to improved efficiency, productivity and growth (Porter 1998; Porter 1990). The main argument is that with the constant entry and exit of enterprises, economies encourage a dynamic screening process for more productive and innovative uses of resources. In this scenario, new businesses initiate change and innovation through their new products. Whereas some established companies will be unable to compete and eventually die, other more adaptable businesses will defend their market positions.

Neoclassical approaches see three kinds of efficiency gains driven by competition: allocative efficiency, productive efficiency and business innovation. The first effect refers to the gains that arise when markets allocate resources efficiently, meaning that firms produce the right goods for the right people at the right price (Harberger 1954). In contrast to this socially optimal level are monopolies, which tend to increase prices above the marginal cost of production. Second, productive efficiency describes the point at which a firm reaches the maximum output from a given set of inputs. This is also known as the production possibility frontier, as it drives per unit costs to the lowest levels possible. Third, a competitive environment is said to spur the innovation capacities of firms as they try to find ways to reduce costs by using new technologies or improving product quality (Ahn 2002). Accordingly, economic growth results from entrepreneurial innovations, which destroy monopoly rents by previous entrepreneurs (Schumpeter 1943). In summary, competition triggers a selection process for innovative, cost-efficient firms.

In light of the "neck-to-neck" competition between highly innovative firms, Schumpeter assumes the relationship between higher levels of competition and innovation to be linear. However, scholars of the endogenous growth literature have argued recently that, in fact, competition and innovation follow an inverted U-shape in which too little and too much competition reduce the necessary incentives to innovate and upgrade businesses (Aghion et al. 2001). This is of particular importance for latecomer economies, which show a strong trend towards a dual economy. The dual economy is characterised, on the one hand, by a highly productive and formalised sector that coexists with a survivalist, informal sector on the other hand. Against this backdrop, a high initial level of competition should therefore affect the formal and informal sectors differently.

With regards to small-scale entrepreneurs in the informal sector, a high level of competition will reduce the incentives for "latecomer" enterprises to innovate, as investments in innovation are perceived to bring about few profitable gains. Further, most-small-scale entrepreneurs lack the capabilities to imitate the products and practices of competitive firms. Accordingly, due to these strong entry barriers, the economy as a whole will therefore be very slow to move away from this economic bifurcation. In other words, if competition is very high to begin with, this should result in a slower average innovation rate (Aghion et al. 2001). Even worse, among the segment of informal enterprises, high levels of competition might lead to destructive price wars and falls in profits that, in turn, reduce the perceived benefits of an enterprise's innovation efforts and investments (Singh 2002).

Indeed, there are several arguments on why competition might also have adverse effects on economic development and enterprise upgrading in general. A well-known argument against competition is brought up by Laffont (1998), who argues that in markets of developing countries, high rates of profits are necessary to maintain high rates of investment in product development and technological catching-up. Without these positive incentives, developing economies will be stuck in a sub-optimal state of under-investment in learning and innovation.

Some of the effects of competition are not easily measured. The level of competition can be measured by the number of competing firms, the degree of concentration of economic power, the openness to international markets, the existing regulatory measures in place and other forms of entry barriers. Most of the empirical studies on the relation between

competition and a firm's performance use these measures, yet much depends on data availability, and the varying measures of competition in empirical work make comparisons difficult. Also, research has tended to be over-aggregated, leaving the reader with little understanding about the actual mechanisms at work.

However, there are empirical studies clearly supporting some of the above-mentioned theoretical arguments. In his influential work, Porter (1990) showed that a domestic market based on competition prepares and enables domestic enterprises to compete in international markets. He found a strong association between inter-firm competition and industry competitiveness. Looking at transition economies, Djankov and Murrel (2002) find that more competition in product markets incentivises firms to lower their costs. Further, research in the United Kingdom has shown that competition encourages productivity growth (Nickell 1996). In developing countries, Tybout (2000) analyses firm and job turnover in industrial plants and finds that competition functions as a selection mechanism to filter those plants that are least productive. Case studies in Korea, Indonesia and Tanzania provide indicative evidence for the positive impact of trade liberalisation, competition and competition policies on industrial development (Kim 2000; Bartel / Harrison 2005; Kahyarara 2004).

Though there is substantial evidence that competition produces efficiency gains, Tybout (2000) shows that these might not be as big as expected. In fact, he shows that new firm entries start at the same low productivity level at which they exited the market. There is also compelling historical evidence that economic development and firm upgrading have been maintained though protectionist policies, such as those that have been employed in several countries in East Asia (Singh 2002; Aw / Chung / Roberts 2003).

Though it seems that there is empirical evidence for supporting the gains of allocative and productive efficiency, research on the relationship between competition and innovation does not support the linear model of Schumpeter. In fact, research in developing countries has questioned the linearity of the relationship (Aghion et al. 2005; Aghion / Griffith 2005). Aghion et al. (2005) show that the empirical relationship between competition and innovation has, in fact, a U-shape. This indicates that both very high and very low levels of competition are unfavourable for growth and enterprise upgrading. Trying to interpret this ambiguous effect, Aghion and Griffith (2005) suggest that innovation and enterprise development in low- and middle-income economies strongly depend on factor accumulation, imitation and technology diffusion. This has strong implications for intellectual property rights and competition policy.

The conventional wisdom suggests that innovators and their innovations need to be protected by laws in order to provide incentives for the development and investment in new, risky technologies. Therefore, it is crucial to protect tangible and intellectual property rights (Eifert / Gelb / Ramachandran 2005). From this perspective, the imitation of innovations would reduce the innovator's rewards, and thereby imply a reduced average innovation rate among enterprises. Aghion et al. (2001) and Aghion et al. (2005) show, however, that allowing more imitation will actually increase the average innovation rate. Technological catching-up processes in low- and middle-income countries might therefore only unfold with a competition policy that brings about the appropriate incentives for laggard enterprises, while at the same time maintaining competitive pressure for firms operating at the technological frontier. Thus, high levels of competition and stringent

intellectual property rights may actually hamper rather than facilitate enterprise innovation, technology diffusion and economic progress in emerging and developing countries (Acemoglu / Aghion / Zilibotti 2003).

Thus, for market competition to have a positive effect on enterprise innovation and growth, the institutional framework needs to acknowledge diverse market participants as well as the existence of market-entry barriers. Accordingly, an appropriate institutional framework will have to balance and address the needs for technology imitation and diffusion among laggard enterprises. At the same time, policy-makers need to ensure that technologically advanced and internationally exposed medium-sized and large enterprises are not under-challenged (Altenburg / Eckhardt 2006).

4.4.4 Access to finance

The lack of access to bank finance is seen as an overarching barrier to upgrading. Access to formal finance can reduce financing constraints, it can help to grow businesses to their optimal sizes and provide the financial investments for product, process and organisational innovations. Yet, in developing countries, access to credit is very limited for entrepreneurs across all business sizes, and it is even more acute for micro- and small-scale businesses.

Over the past decade, several firm surveys have enhanced our knowledge about financing patterns of small firms across countries.[8] Most of these surveys ask firm owner and managers to what extent access to – and costs of – external finance represents an obstacle to their operation and growth (World Bank 2008, 45). Numerous studies based on these surveys have discussed that small and medium enterprises are financially more constrained than large firms and are less likely to have access to (formal) finance (Beck / Demirgüç-Kunt 2006; Beck / Demirgüç-Kunt / Levine 2003; Beck 2007; Ayyagari / Demirgüç-Kunt / Maksimovic 2006). In general, small firms in both the *World Business Environment Survey* and the *Investment Climate Surveys* report that financing constraints are among the most important business constraints they face, though the geographic variation is large. On average, enterprises in East Asia and Europe perceive financing to be a minor constraint, whereas in the Middle East and sub-Saharan Africa, financing constraints are perceived to be a major obstacle for firm growth. The feedback on financing within Latin America is much more diverse, with Chilean enterprises reporting finance to not be an issue, whereas Brazilian firms see financing as an important growth constraint. Another International Finance Corporation survey of 10,000 firms across 80 countries found that credit is mentioned more frequently by smaller firms as being a constraint on growth (Schiffer / Weder 2001).

However, although the message that small firms have a hard time accessing formal loans is clear, one should keep in mind that most of these surveys only include the perception of

8 These sources include the *Regional Program on Enterprise Development* studies for sub-Saharan Africa in the 1990s; the *Business Environment and Enterprise Performance Surveys* for the transition economies; the *World Business Environment Survey*, conducted across 80 countries from 1999–2000; and the *Investment Climate Surveys*, conducted since 2002 and available for almost 100 countries. These surveys include micro, small and medium enterprises that are not captured in data sets based on published financial statements (World Bank 2008, 45).

registered enterprises. Only recently has the *World Business Environment Survey* set up informal and micro surveys for selected African and Latin American countries. In the future, this project will add much value to understanding the role of formal financing for informal and micro entrepreneurs across countries. However, data in developing countries has relied on registered firms and empirical evidence thus far, suggesting that the actual use of external, formal financing varies considerably between and within regions. Firm-level surveys suggest that the share of small firms with bank credit varies – from less than 1 per cent in Pakistan to almost 50 per cent in Thailand (World Bank 2008, 45). Using data from the *World Business Environment Survey*, Beck, Demirgüç-Kunt and Maksimovic (2008) find that small enterprises and firms in countries with weak institutions use less external financing, in particular less bank financing. Further, compared with larger firms, they find that small firms do not compensate for this with other formal financing sources such as leasing, factoring or trade finance.

As a result, many scholars have asked *why* firms – especially small-scale enterprises – do not access and use bank finance, particularly in developing countries. There are a variety of theoretical explanations, which can be divided into supply- and demand-based arguments.

Considering the supply side, many studies observe that most developing countries' financial markets are underdeveloped and do not provide enough "finance for all" (World Bank 2008). The high level of uncertainty usually associated within the group of micro, small and – to a lesser extent – medium enterprises means it is difficult for lenders to assess the risk of an investment. In general, due to problems of adverse selection and moral hazard, banks tend to exclude a large part of the population, especially the poor. The lack of collateral as well as the small scale of operations make most investors reluctant to serve poorer and small-scale entrepreneurs.

Considering the demand side, although many accounts refer to supply-side factors when explaining the finance gap – such as geographical outreach, eligibility criteria, and affordability of loans (bank charges) – research indicates that actually there might be little demand for formal bank finance. Many formal lending organisations and banks might be missing the opportunity to provide appropriate products and services adapted to the specific needs of poorer target groups. For instances, loan sizes may be too big, fees too high, repayment timelines too short and application procedures too complicated. In Georgia, Nepal and Uganda, the minimum SME loan amount is 20 times the average per capita GDP amount, and the processing of an SME loan application in Bangladesh, Pakistan and the Philippines takes more than a month, whereas it takes only up to two days in Uruguay and Denmark (World Bank 2008, 49–50). Thus, it seems that the needs of smaller businesses are not taken adequately into account. Moreover, small entrepreneurs might not approach banks because their business ideas are not bankable. Another reason for low demand might be that micro and small entrepreneurs are reluctant to take out loans when personal assets are required as collateral. World Bank research indicates that this is a common practice for new venture finance. Across income groups, younger firms are almost twice as likely as older firms to use the owner's personal assets as collateral (World Bank 2008). Given the low income levels of the poor, this practice might discourage them from taking out formal loans, as personal assets constitute a social security device that prevents poor households from slipping below a subjective poverty line. Regarding the high probability of income shocks in developing countries, it is therefore not

surprising that the high risk-perception of poorer households leads to lower demand for formal finance.

As alternatives, most opportunity-driven MSEs have to rely on other sources of (informal) finance in order to start and grow their businesses. Especially in rural areas, where the outreach of formal financial services is typically more limited, relationship lending, such as through traders, plays an important role in providing working capital in cash or in-kind (Akoten / Otsuka 2007). Recent research suggests that especially the young firms rely less on banks and more on informal financing (Bigsten et al. 2003; Chavis / Klapper / Love 2010). This is true for formally registered and unregistered firms. All over the world, entrepreneurs rely for the most part on their own savings when launching a small venture (Nichter / Goldmark 2009). It is especially during the early years of MSEs that the lack of adequate finance is seen as a major constraint on growth and business expansion. A study in Mexico covering about 14,000 micro enterprises shows that of all the surveyed MSEs, about 61 per cent used their own savings and 14 per cent used the savings of family and friends to start their enterprises (Hernández-Trillo / Pagán / Paxton 2005). This finding highlights the role of personal savings and assets and those of kinship networks for jumpstarting entrepreneurial projects.

Against this background micro-finance institutions are considered important sources of alternative financing for poorer segments of society. Yet, many micro-lending organisations do not reach out to opportunity-driven small and medium enterprises (the "missing middle" problem). Micro-finance institutions have shown themselves to be less focused on growth-oriented small enterprises than on survivalist and female-headed micro enterprises. The latter seem to be more attractive to banks, since a group-guarantee methodology spreads the risk across many individuals and ensures bigger loan sizes. Additionally, many growth-oriented small-scale entrepreneurs find that the amount given by micro-finance institutions is insufficient and terms too short for business expansion and upgrading purposes (Morduch 1999). Most micro-finance credit has been shown to be used for consumption rather than business investments (World Bank 2008). Thus, the question has emerged whether micro finance has developed into a mechanism providing consumption loans to necessity entrepreneurs rather than offering micro loans for growing business activities of small-scale entrepreneurs. Above all, micro finance has been shown to be quite expensive, thereby prohibiting small entrepreneurs from undertaking long-term investments.

Despite theory focusing on the importance of broader access and greater opportunities (that is, financial inclusion), it is astonishing that relatively little empirical evidence links access to finance to development outcomes, and enterprise upgrading in particular (World Bank 2008). Few empirical studies have explicitly tested the positive link between access to finance and MSE growth or upgrading, and therefore it is still unclear whether access to loans represents a binding constraint on firm growth. There are few insights into the effectiveness of commercial loans on MSEs, as very few are able to access them – mainly because of high transaction costs, moral hazard and missing collateral. Thus, most empirical work has been done on the impact of micro finance. So far, in terms of micro-finance impact, research has shown that MSEs financed by external sources are more efficient, yet no clear conclusion about the role of micro finance in explaining enterprise growth could be drawn (Hernández-Trillo / Pagán / Paxton 2005). This is due to a classic selectivity problem, in which creditors choose the most promising and capable entrepreneurs among a group of potential applicants.

A study in Kenya based on a random sample of 225 micro and small enterprises argues that credit access is not a significant determinant of firm performance (Akoten / Sawada / Otsuka 2006). Showing that those factors associated with access to finance do not correspond to those associated with firm growth and profitability, the results indicate that enterprise growth might actually be driven by something else. A further study by Karlan and Zinman (2009) randomly encouraged loan officers at a micro-finance lender in the Philippines to approve loans to applicants from a pool that had been ranked "marginal" by credit scoring software. These loans were only intended for micro-enterprise development rather than consumption. Counter-intuitively, borrowers were found to invest less in the targeted business once they received the loan. However, they were more likely to invest in education, indicating indirect investments in business development through human capital acquisition. Karlan and Zinman (2009) observe that the treatment effect on investment activities was the strongest among male and high-income borrowers, who are not the typical target group of micro-finance institutions. Yet, there are some caveats to generalise and validate some of these outcomes. First, micro entrepreneurs in this study were wealthier than average for their area, which calls into question whether the impact would be similar if adopted in a poorer setting. Further, Karlan and Zinman do not control for personal characteristics other than gender. Much of the variation could be then driven by education or other skills rather than gender and finance *per se*. Another possible caveat is the self-reporting bias that may have occurred from borrowers exaggerating their profits – therefore investments might be overestimated.

A major problem in assessing whether micro finance increases the likelihood of firm upgrading is the fact that micro loans may not reach out to the target group of opportunity entrepreneurs and instead deliver necessity entrepreneurs with loans that have high interest rates and short repayment cycles. These loans are not optimally designed to unleash entrepreneurial dynamics, as they discourage any rational business man or woman from making long-term, growth-oriented investments (Banerjee / Duflo 2011). Although micro-finance loans have been shown to improve the lives of the poor, they should not be regarded as substitutes for commercial loans, which aim to facilitate productive investments rather than consumption smoothening (Banerjee / Duflo 2011, 228–229).

Further, recent results based on a randomised field experiment in Ghana cast doubt on the view of credit-constrained micro enterprises growing immediately once finance is provided (McKenzie et al. 2011). Although the authors find a positive effect on profits for both females and males, they also find that for women with initial profits below the median, capital alone does not stimulate growth. Further, they find differences in the effects of cash and in-kind grants, whereby the latter are found to have a stronger effect on business profits. The impact of cash, on the other hand, is not as strong, which the authors attribute to a lack of self-control. There are differences, especially for women, between cash and in-kind grants, supporting the theory that women's incomes are often used to generate income for the household and therefore are less likely to be invested in business activities. These results imply that finance and capital are primary constraints for some groups of micro entrepreneurs, but not for all. Further, it also points at the importance of how funds are disbursed. Loans and grants aiming to help micro entrepreneurs are more effective if they are disbursed in-kind and not in cash.

These caveats cast doubt about how much we actually know about the effects of micro finance on firm growth, and whether financing is really the most binding constraint for

enterprise upgrading. Indeed, practitioners have long argued that the provision of financing alone will not solve the lack of viable business opportunities and profitable business plans. Whereas some micro and small firms are excluded from formal financing, World Bank data suggests that a large chunk of enterprises do not have bankable business ideas to be financed.

Though lack of available cash flow or external finance is very often self-reported to be a major limitation on sustaining and expanding ongoing operations of small businesses, many entrepreneurs in developing countries have little to offer other than their hopes and dreams when it comes to outlining a feasible and profitable business plan (Levine 1997; Heino / Pagán 2001). Moreover, very often micro entrepreneurs misconceive what is profitable and what is not. This can be seen in a study in Zambia in which interviews revealed that about 50 per cent of micro entrepreneurs believe that the prevalence of many other competitors in that activity indicates a good market opportunity (Philipps / Bhatia-Panthaki 2007). However, although micro entrepreneurs seem to copy common business ideas, they do not realise that their small profits very likely are a result of market saturation. Reproducing already existent and proven local business models has been shown to be a typical strategy of micro enterprises as a way of diversifying risk and securing income (Downing 1990; Wright 1999). For poor households, one failing enterprise among many will have only a limited impact on total household income (Wood 2003). However, replicating businesses is not a promising path to enterprise growth, in particular for small firms, which have comparative advantages of scope rather than scale in developing economies.

In summary, financial and institutional development helps to alleviate financing constraints, but it is important to look at what these financial resources are used for. Research suggests that in order to grow, small-scale entrepreneurs must pursue a strategy of differentiation and specialisation (Altenburg / Eckhardt 2006; North / Smallbone 2000). Support for this proposition comes from the notion that smaller firms cannot produce based on economies of scale and are therefore not compatible with larger firms. Due to this very reason, competitiveness of small-scale producers is necessarily based on and driven by innovative niche products rather than price. This observation requires the small enterprise to be actively involved in the management of products, markets and accessible technologies, yet only a minority of them are aware and capable of carrying out these tasks. Yet, for most micro entrepreneurs, this "specialisation" strategy is counter-intuitive. This is reflected in the way financial investments are done. Whereas owners of growth-oriented businesses have been observed to expand by reinvesting profits to enlarge the existing businesses, many necessity micro entrepreneurs spread the investment across several smaller projects to diversify risk (Afenyadu et al. 1999).[9] Thus, for achieving growth over an extended period, it is not enough to improve the supply-side of financing – it is also necessary to consider the demand-side aspects, in particular the kind of demand coming from different target groups (necessity vs. opportunity entrepreneurs). For businesses to be jumpstarted, micro and small entrepreneurs are also required to be consciously involved in developing a feasible and profitable business plan. Accordingly, like many of the factors discussed in this article, access to finance may be a necessary condition for MSE growth, but it is not a sufficient condition.

9 This is called a vertical expansion of the core business. Survivalist enterprises tend to follow a lateral growth trajectory involving multiplication of enterprises.

Further, small-scale entrepreneurs need tailored business advice and development services[10] combined with financial measures to develop their full potential. However, the authors are not aware of any studies that explicitly investigated the impacts of business advice and development services on actual firm performance – MSEs in particular – in developing countries.

4.4.5 Summary

With regards to the business environment, empirical research provides the following picture:

- *Stable macro-economic and political environment*: A stable macro-economic and political environment is essential for enterprise upgrading. Economic and/or political instability increases the number of risks that entrepreneurs face in their daily operations. High-risk environments, especially for micro and small enterprises, make planning nearly impossible and prevent important investments in productivity-enhancing activities from being undertaken. Stable macro-economic and political conditions are therefore a necessary but not sufficient condition for enterprise upgrading.

- *Regulatory business environment:* Economic institutions and regulatory frameworks affect whether enterprises increase their productivity and grow. However, the attempt to prove a universal institutional case is somewhat misguided, as it fails to ask which *set of institutions* and *regulatory policies* are appropriate in particular economic contexts. *Doing Business* assumes that streamlining bureaucratic procedures and formalising businesses will *always* lead to improved conditions for entrepreneurs. Several cases in economic history have shown that these "deregulation" measures have not proven to increase the likelihood of micro- and small-enterprise upgrading. This is because micro and small entrepreneurs face various constraints in developing countries, of which formalisation and complex bureaucratic procedures might not always be the most binding to growth. Thus, empirical evidence on an optimal set of institutions and regulatory policies is inconclusive. The lack of panel data as well as methodological challenges, such as endogeneity, prevents research from producing any clear trends on that question.

- *Competition:* Depending on the local level of economic development, competition is found to have different effects. For market competition to have a positive effect on enterprise innovation and growth, the institutional framework needs to *acknowledge* the diversity in the market structure as well as the existence of market-entry barriers. Technological catching-up processes in low- and middle-income countries might therefore only unfold with a competition policy that brings about the appropriate incentives for laggard enterprises, while at the same time maintaining competitive pressure for firms operating at the technological frontier. Thus, high levels of competition and stringent intellectual property rights may actually hamper rather than facilitate enterprise innovation, technology diffusion and economic progress in

10 Classical business advice and development services normally cover areas such as education, management, marketing skills, technical know-how, access to markets and information as well as physical infrastructure.

emerging and developing countries, as they overchallenge a large part of the industrial fabric (Acemoglu / Aghion / Zilibotti 2003).

- *Access to (bank) finance:* Evidence so far shows that there is indeed a finance gap for micro and small enterprises in developing countries. There are demand- and supply-side reasons that explain why rates of loan provisioning and loan uptake among MSEs are low. Few insights into the effectiveness of commercial loans on MSEs exist, as very few are able to access them – mainly because of high transaction costs, moral hazard and missing collateral. Thus, most empirical work has been done on the effects of micro finance. Due to the "micro-finance revolution", loan provisioning to poorer segments of society has increased, yet the literature on the impact of micro finance on enterprise growth and upgrading is inconclusive, in particular on the long-term effects, due to problems of selection, endogeneity as well as the lack of panel data. Further, a major problem in assessing whether micro *finance* increases the likelihood of firm upgrading is the fact that micro loans may not reach out to the target group of opportunity entrepreneurs and instead deliver necessity entrepreneurs with loans that have high interest rates and short repayment cycles. These loans are not optimally designed to unleash entrepreneurial dynamics, as they withhold any rational business man or woman to make long-term, growth-oriented investments (Banerjee / Duflo 2011). Though micro-finance loans have been shown to improve the lives of the poor, they should not be regarded as substitutes for commercial loans, which aim to facilitate productive investments rather than consumption smoothening (Banerjee / Duflo 2011, 228–229).

5 Conclusions

The aim of this literature review was to provide an overview of the theoretical and empirical work that has been gathered in the last decades on the subject of micro- and small-enterprise upgrading in low- and middle-income countries. After presenting the conceptual framework, this paper is guided by an "onion" model of factors that are internal or external to the firm. This onion model guides the reader along four different levels of factors that are most commonly referred to as affecting enterprise development. These are the (1) *entrepreneur characteristics*, the (2) *enterprise characteristics*, the (3) *role of business and social networks* as well as factors associated with the (4) *business environment*.

By combining different strands of literature, this paper provides a synthesis of the current knowledge on enterprise development and enterprise upgrading. On the basis of a systematic discussion of different groups of factors, this paper contributes to a clearer and more comprehensive understanding on what affects enterprise upgrading. Against this background, this paper draws the following four main conclusions:

1. *There is no clear trend in the literature in explaining enterprise upgrading:* Although much of the literature stresses one particular factor in particular – e.g. the regulatory environment (World Bank 2013; de Soto 1989), the role of clusters and networks (Pyke / Sengenberger 1992) and the entrepreneur's capabilities (McClelland 1985) – empirical research in many countries has shown that mono-causal approaches fall short in explaining the very idiosyncratic and cumulative process of enterprise

development. In particular, the heterogeneity among micro and small enterprises across and within countries – in terms of investment climates, interconnectivity with networks, abilities and strategies – implies that along the way different factors will play a role at different times. Thus, although in a given context some factors will be more important than others, there is no such a thing as a "recipe" for enterprise success or a trend in explaining firm development across a very heterogeneous group of enterprises.

2. *Enterprise upgrading requires a virtuous combination of internal and external factors in the "onion" model*: "Internal" and "external" perspectives have been more and less dominant in the different waves of the academic discourse on enterprise development. However, in order to understand enterprise upgrading, it is important to discover "combinations of success", meaning to understand how the internal quality of the enterprise matches with the external quality of the environment. These factor combinations can be quite different, depending on the external institutional environment, the market structure and opportunities as well as many more factors associated with the entrepreneur himself and his networks at hand. For example, entrepreneurs may face different constraints in facilitating learning and technological catching-up and therefore need to adopt strategies in which they make use of specific types of external resources. Depending on the availability, entrepreneurs may opt for the use of personal networks or professional linkages (e.g. GVCs) to organise know-how and technology transfer. The idea of highly contextualised sector combinations falls back to the idea of "systemic competitiveness". The latter is defined as the outcome of strategic factor combinations with the aim of addressing complementary growth constraints at the macro-, meso- and micro levels (Esser et al. 1996).

3. *Factors associated with the entrepreneur and his firm are underestimated:* The current prevailing perspective in enterprise development highlights the positive contribution of market forces in establishing an external *business environment* that is conducive to private sector development and enterprise upgrading (World Bank 2011a; World Bank 2013). Yet, the literature has shown that there are always some enterprises that manage to upgrade despite "unfavourable business environments" and financing constraints. Conversely, countries that rank high with regards to their business environment are not necessarily the ones with the most dynamic entrepreneurial economies. Accordingly, the question evolves as to why, *ceteris paribus*, unfavourable regulatory and institutional conditions, some enterprises perform better than others. It therefore seems that factors internal to the enterprise are currently highly underestimated.

The literature on social capital, networks as well as on global value chains and cluster dynamics has presented insights into how – in the absence of first-best formal institutions – entrepreneurs use relational ties to access finance, information and markets (Meagher 2010; Biggs / Shah 2006). However, networks can thereby likely reproduce power inequalities, as only very few enterprises access those "quality networks". Also, recent work has convincingly highlighted the role of internal factors such as motivation, risk-perception and the role of managerial and technical abilities of micro and small entrepreneurs in explaining patterns of stagnation and upgrading in enterprise development (de Mel / McKenzie / Woodruff 2008). Similarly, processes of endogenous,

firm-level learning and technological-capability development have been core issues in the literature on global value chains and industrial clusters.

This research suggests that entrepreneur and enterprise characteristics are more important than most policies acknowledge. As shown by this strand of research, most MSEs do not have the necessary motivation, absorptive capacity or access to information to cumulatively build the knowledge base necessary for upgrading. Thus, it seems that factors internal to the enterprise are currently highly underestimated. Factors such as the education and work experience of the entrepreneur as well as the enterprise's motivation and ability to learn seem to influence upgrading much more than current perceptions suggest.

4. *Explaining how certain factors matter for enterprise upgrading is confronted with conceptual and empirical challenges*: Synthesizing insights from different research fields requires being aware of various conceptual and methodological challenges:

   - *Conceptually*, there is no common understanding of enterprise upgrading, enterprise growth or firm-level innovation among scholars and policy-makers. Further, there is little conceptual work connecting these different phenomena. A major reason for this lack of clarity is the fact that research on enterprise development is inter-disciplinary and unites the interests of various research fields such as development economics, entrepreneurship, business and innovation studies, economic *history* and economic sociology. Accordingly, there exists great heterogeneity in ideas and conceptualisations of enterprise development.

   - *Data availability and research designs:* As enterprise upgrading is a phenomenon that happens over time, preferably, it should be researched longitudinally. But working with panel data on MSEs is tricky, since only few of these datasets exist. More importantly, due to the informal character of MSEs and the problem of separating business activities from private ones, it is very hard to set up a good panel. However, recent studies on micro entrepreneurs in Sri Lanka and Ghana have also used panel data and field experiments to inform the debate on micro-enterprise growth (de Mel / McKenzie / Woodruff 2008; McKenzie et al. 2011). Yet, currently there is no study on micro-enterprise growth tracking micro entrepreneurs for a longer period than three years. Subsequently, the vast majority of quantitative research so far has used one-shot cross-sectional techniques to study enterprise growth, leading to problems of selectivity and omitted variable biases (Beck / Demirgüç-Kunt / Maksimovic 2005; Beck 2007). In contrast, qualitative research on micro- and small-enterprise development has favourably made use of case studies to describe and analyse processes of technological learning and small-enterprise innovation. These studies normally make use of in-depth interviews, focus-group discussions and historical data; however, they stand mostly under the critique of being rather "subjective" in nature and not providing comparable data *and* insights.

   - *Operationalisation*: Although productivity growth or returns on investment are probably the best quantitative measures to operationalise enterprise upgrading, most studies in developing countries utilise employment growth as a second-best option. This is because usually MSE owners who are operating in informal markets

do not keep books on financial and production ratios, making accurate calculations on productivity or returns unconvincing. Still, using employment growth as a proxy for upgrading offers no information about the qualitative improvements at the firm level. In particular, since upgrading is understood to result from innovation, it is crucial to develop a proxy capturing qualitative increases in the skill and knowledge content of economic activities. Against this background, scholars working on small enterprise clusters and their integration into global value chains have forwarded a typology of upgrading (Schmitz / Knorringa 2000). According to them, increases in the production value can be caused by product innovations, process innovations and the acquisition of new functions as well as through the expansion of activities into other sectors (inter-sectoral innovation). Introducing different types of innovations is helpful in categorising the nature and source of value added. However, the actual operationalisation of what is a product, process or organisational innovation is unclear and very case sensitive. In particular, this type of qualitative judgement is strongly vulnerable to inter-subjectivity by the informant and the researcher. Further, it leaves open the question of how qualitative and quantitative measures of enterprise upgrading can be systematically analysed and compared.

In summary, this paper shows that enterprise upgrading is a complex phenomenon that requires several conditions within the external environment and with regards to the quality of the entrepreneur and firm to be met for upgrading to occur. Due to the country and case sensitivity, these factor combinations are not standardisable. However, this literature review provides some insights on the role of various factors along the four major “onion” layers. More synthesised and generalisable conclusions on enterprise upgrading are withheld due to the lack of consistent conceptual definitions, operationalisations and measurements of enterprise development and upgrading. Further, the availability of good panel data (across countries) affects the quality of work and insights that can be drawn. Accordingly, more inter-disciplinary research on MSMEs with better (panel) data is needed.

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