Understanding Entrepreneurship at the Base of the Pyramid in Developing Countries

Insights From Small-scale Vegetable Farmers in Benin

Ahoudou Waliou Yessoufou
Thesis committee

Promotor
Prof. Dr S.W.F. Omta
Professor of Management Studies
Wageningen University & Research

Co-promotor
Dr V. Blok
Associate Professor in Sustainable Entrepreneurship, Business and Innovation Ethics at the Management Studies Group
Wageningen University & Research

Other members
Prof. Dr R. Ruben, Wageningen University & Research
Dr T. Lans, Wageningen University & Research
Dr P.T.M. Ingenbleek, Wageningen University & Research
Prof. Dr P.A.M. Vermeulen, Radboud University

This research was conducted under the auspices of the Wageningen School of Social Sciences (WASS)
Understanding Entrepreneurship at the Base of the Pyramid in Developing Countries

Insights From Small-scale Vegetable Farmers in Benin

Ahoudou Waliou Yessoufou

Thesis
submitted in fulfilment of the requirements for the degree of doctor
at Wageningen University
by the authority of the Rector Magnificus,
Prof. Dr A.P.J. Mol,
in the presence of the
Thesis Committee appointed by the Academic Board
to be defended in public
on Friday 22 December 2017
at 11 a.m. in the Aula.
Ahoudou Waliou Yessoufou

Understanding Entrepreneurship at the Base of the Pyramid in Developing Countries - Insights From Small-scale Vegetable Farmers in Benin,

196 pages.

PhD thesis, Wageningen University, Wageningen, the Netherlands (2017)

With references, with summary in English

ISBN: 978-94-6343-821-6

DOI: http://dx.doi.org/10.18174/426783
Propositions

1. In poverty settings in developing countries, collaborativeness and resource acquisition should be part of the entrepreneurial orientation concept. (this thesis)

2. Entrepreneurial orientation is essential but not sufficient for business performance. (this thesis)

3. Biodiversity strengthens the balance and the resilience of an ecosystem.

4. Both positivism and post-positivism epistemological approaches are needed to fill in the blind spots generated by each approach separately.

5. A successful PhD journey at Wageningen University is more dependent on the ability to adapt than what you know or who you know.

6. Poverty reduction is big business.

Propositions belonging to the thesis, entitled:

“Understanding Entrepreneurship at the Base of the Pyramid in Developing Countries. Insights From Small-scale Vegetable Farmers in Benin “

Ahoudou Waliou Yessoufou

Wageningen, 22 December 2017
To Monique,

Arikè Faridath,

Oyéyèmi Nabilath,

Foumilayo Ankilath,

and Olanwafemi Farbane
# Table of content

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>General introduction</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>The process of entrepreneurship at the Base of the Pyramid in developing countries: A case of vegetable farmers in Benin</td>
<td>27</td>
</tr>
<tr>
<td>3</td>
<td>Understanding the Patterns of Small Business Entrepreneurial Orientation</td>
<td>59</td>
</tr>
<tr>
<td>4</td>
<td>Developing Measures for Small Business Entrepreneurial Orientation</td>
<td>85</td>
</tr>
<tr>
<td>5</td>
<td>Entrepreneurial Orientation and Business Performance: The Role of the Entrepreneur’s Network Capabilities</td>
<td>111</td>
</tr>
<tr>
<td>6</td>
<td>General Discussion, Conclusions, and Implications</td>
<td>135</td>
</tr>
</tbody>
</table>

References  
Summary  
Acknowledgments  
About the Author  
Completed Training and Supervision Plan
1

General Introduction
General Introduction

1.1 Introduction

About 1.5 billion people continue to live in poverty around the world and two thirds of them reside in developing countries. In Sub-Saharan Africa, for example, more than half a billion struggle to survive on less than US $2 a day (Chen and Ravallion, 2008), and the absolute number of poor people has been increasing since 1993, despite the volume of foreign aid and the social and political reforms initiated during the last three decades (World Bank, 2008). Consequently, poverty reduction remains a significant concern and a priority for most of the countries in the region (Sachs, 2006). Development economics research has been aggressive in looking at this issue (Berg and Schrader, 2012). This strand of research addresses the difficulties that people living in poverty face, it examines different actions' effects within various settings (Duflo and Pande, 2007), and identifies ways to solve poverty issues (Alatas et al., 2012). Some scholars have argued that for poor countries to move out of poverty, large amounts of capital are required (Datta-Chaudhuri, 1990). This has led to the view that poor countries are unable to move out of poverty without gaining access to the capital they need (Akramov, 2012). Development efforts through government interventions and foreign aid have provided individuals and small-scale businesses with the opportunities for building human capital (Cohen and Soto, 2007; Lucas, 1998), an institutional environment (World Bank, 2011), and access to financial capital (Yunus, 2007). It was assumed that this support would provide the underpinnings to economic growth and poverty reduction. Still, whereas there has been noticeable improvements in all three areas, the impact on poverty reduction has been mixed (Alvarez et al., 2015). Critics argue that most of these approaches to poverty alleviation proved to be unsatisfactory and sometimes counterproductive (Easterly, 2006).

Inclusive market-based mechanisms to poverty alleviation emerged as a complementary or an alternative approach to capital building and is gaining increasing attention. The logic behind the market-based approach is that markets might take care of production, but other functions such as political, legal, and sociocultural institutional structures needed to achieve higher levels of production, required government planning. Inclusive market-based mechanisms (UNDP, 2008) refers to the integration of poor people at the “base of the pyramid” (BoP) from Developing and Emerging (henceforth D&E) countries, and the idea that this can improve development outcomes. Two dominant strands on inclusive market-based mechanism as a tool for alleviating poverty in D&E economies can be identified: The first strand, originally developed in strategic management and marketing by Prahalad and his colleagues (e.g., Prahalad and Hart, 1999; Prahalad and Hammond,
1.1 Introduction

About 1.5 billion people continue to live in poverty around the world and two thirds of them reside in developing countries. In Sub-Saharan Africa, for example, more than half a billion struggle to survive on less than US $2 a day (Chen and Ravallion, 2008), and the absolute number of poor people has been increasing since 1993, despite the volume of foreign aid and the social and political reforms initiated during the last three decades (World Bank, 2008). Consequently, poverty reduction remains a significant concern and a priority for most of the countries in the region (Sachs, 2006). Development economics research has been aggressive in looking at this issue (Berg and Schrader, 2012). This strand of research addresses the difficulties that people living in poverty face, it examines different actions’ effects within various settings (Duflo and Pande, 2007), and identifies ways to solve poverty issues (Alatas et al., 2012). Some scholars have argued that for poor countries to move out of poverty, large amounts of capital are required (Datta-Chaudhuri, 1990). This has led to the view that poor countries are unable to move out of poverty without gaining access to the capital they need (Akramov, 2012). Development efforts through government interventions and foreign aid have provided individuals and small-scale businesses with the opportunities for building human capital (Cohen and Soto, 2007; Lucas, 1998), an institutional environment (World Bank, 2011), and access to financial capital (Yunus, 2007). It was assumed that this support would provide the underpinnings to economic growth and poverty reduction. Still, whereas there has been noticeable improvements in all three areas, the impact on poverty reduction has been mixed (Alvarez et al., 2015). Critics argue that most of these approaches to poverty alleviation proved to be unsatisfactory and sometimes counterproductive (Easterly, 2006).

Inclusive market-based mechanisms to poverty alleviation emerged as a complementary or an alternative approach to capital building and is gaining increasing attention. The logic behind the market-based approach is that markets might take care of production, but other functions such as political, legal, and sociocultural institutional structures needed to achieve higher levels of production, required government planning. Inclusive market-based mechanisms (UNDP, 2008) refers to the integration of poor people at the “base of the pyramid” (BoP) from Developing and Emerging (henceforth D&E) countries, and the idea that this can improve development outcomes. Two dominant strands on inclusive market-based mechanism as a tool for alleviating poverty in D&E economies can be identified: The first strand, originally developed in strategic management and marketing by Prahalad and his colleagues (e.g., Prahalad and Hart, 1999; Prahalad and Hammond,
Chapter 1

2002) view the poor as potential consumers with low purchasing power, to which multinational companies (MNCs) from advanced economies could create innovative and affordable products (Kolk et al., 2013). In doing so, these companies could increase their profits and lift an important number of poor people at the BoP out of poverty.

The second strand contrasts with the first. Rather than viewing the low-income socio-economic population segment at the BoP as a potential market for MNCs, locally-driven entrepreneurship represents a means through which these poor people can break the poverty cycle (Karnani, 2007a; Karnani, 2007b; Karnani, 2007c; Karnani, 2008b; Karnani, 2008a; Bruton et al., 2013b). It offers opportunities for the poor to function on their own (Easterly, 2013), and provides a method for escaping from poverty (Bruton et al., 2013b).

This thesis focuses on the second strand, namely the bottom-up entrepreneurship approach that encompasses local small-sized enterprises that represent important sources of income and opportunity for owners, enabling them to increase their income (Smith and Pezeshkan, 2013). These entrepreneurs are also of great importance to local communities because they provide jobs and improve the livelihoods of community members, allowing households to raise their living standards etc. (Kimhi, 2010; Tamvada, 2010; Bruton et al., 2013b). Furthermore, these enterprises are the critical part of upstream and downstream value chains for larger companies. Promoting this form of local entrepreneurship and strengthening enabling business conditions is seen as an important way to create jobs, stimulate local economies, strengthen communities, reduce poverty and enhance sustainable development (Kimhi, 2010; Tamvada, 2010; Bruton et al., 2013b; Ayyagari et al., 2014). Local small businesses are also of great importance for the resilience of both MNCs and domestic companies, in that they provide a more stable supply of raw materials (London et al., 2010) and distribution channels for final products in smaller packaging for BoP consumers (Arnauld and Mohr, 2005; Dolan and Scott, 2009).

1.2 Problem statement

Given that entrepreneurship is becoming increasingly critical to employment, wealth creation and poverty reduction in developing countries, small-scale entrepreneurship has recently become an important field of study and a tool for policy makers. Many initiatives have been taken by governments, donors, NGOs and for-profit organisations to tackle the challenges that entrepreneurs
face, strengthen entrepreneurial activities of the poor and create economic and/or social value
(Ayyagari et al., 2014; Haltiwanger et al., 2013; Ayyagari et al., 2011). These initiatives include, but are
not limited to the BoP approach (Prahalad, 2006), social entrepreneurship (Mair and Marti 2006) and
business development programmes (Verrest, 2013, Cho et al., 2014, Grimm et al., 2015). All negotiate
and address the issues related to the successful development of entrepreneurship entities in poverty
contexts.

The key issue is how bottom-up enterprises can be supported to become successful economic
entities. In response to this question, interventions were designed and implemented to foster
entrepreneurship, based on an influential research stream on critical constraints and success factors
related to business setup and success in developing economies (e.g., Cho and Honorati, 2014; Cho et
al., 2016; Grimm and Paffhausen, 2015). However, practical and theoretical issues exist with regards
to local entrepreneurship promotion. Practical challenges relate to the evidence on the effective
growth of businesses (Bloom et al., 2010; Toledo et al., 2010), the integration of international and
lucrative markets (Adekambi et al.), and the contribution to substantial job creation (Grimm and
Paffhausen, 2015) by these types of enterprises. Many interventions aimed at fostering local small-
scale firms are based on the underlying assumption that there is a lack of entrepreneurial skills and
competencies, such as the ability of individuals to develop a business activity, solve problems, take
financial decisions, manage risks, or find clients (Sonobe et al., 2011; Sonobe et al., 2010; Anderson-
Macdonald et al., 2014; DeJaeghere and Baxter, 2014; Nafukho, 1998). Intervention studies have also
targeted environmental barriers such as a lack of access to financial products, services, markets, and
technologies and infrastructures. (DeBerry-Spence, 2010; DeBerry-Spence and Elliot, 2012;
Fafchamps, 1997; Henriques and Herr, 2007; Khavul et al., 2009; London et al., 2010; Mead and
Liedholm, 1998).

The theoretical problem is that entrepreneurship dynamics are considered to be universal.
Entrepreneurship is mainly conceptualized as an individualistic and goal-oriented process which is
determined by competencies related to alertness, recognition and resource mobilization for the
exploitation of opportunities, followed by business growth (Venkataraman, 1997). Furthermore, the
majority of intervention studies are based on the conceptualization of entrepreneurship from the
Western and advanced economy perspective. Given the significant difference between developed and
developing economies in terms of contextual factors shaping the entrepreneurship phenomenon, the
Western economies perspective on the dynamics of entrepreneurship may not be generalizable to
developing economies. Thus, the processes by which entrepreneurial actions emerge and evolve in
Chapter 1

BoP contexts are still assumed rather than theoretically and empirically examined. Recent studies have emphasized this lack of empirical research to guide our understanding of the underlying dynamics of bottom-up entrepreneurship in developing and emerging economies (e.g., Kiss et al., 2012; Webb et al., 2013; Bruton et al., 2013b; Bruton et al., 2013a).

After nearly three decades of struggling with fostering the small-scale enterprises in developing economies, more academic engagement with and theoretical and empirical knowledge of the dynamics of bottom-up entrepreneurship is needed. Thus, the aim of this thesis is to: Unveil and improve the understanding of the entrepreneurial process in poverty settings and the strategic orientations that have been developed to be effective.

1.3 Research approach

In this study, we start with the idea that entrepreneurship is a processual phenomenon. Process theory has its philosophical roots in the works of Bergson and Pogson (1913), Heidegger (1962) and Whitehead et al. (1929). This theory is founded upon a worldview that conceptualises processes rather than objects as the basic building block of how to understand the world around us (Moroz and Hindle, 2012). The process view is predicated on a becoming ontology rather than a state of being (Bygrave 1989), where movement, change, and actions are the primordial qualities in knowledge building (Nayak, 2008). This perspective is argued to align well with the study of entrepreneurship, as entrepreneurship is fundamentally an action-based phenomenon, involving multidimensional processes that combine the endogenous entrepreneurial variables with exogenous factors and examines the interaction between the environment, the individual, the organisation and entrepreneurial behaviour, as well as the subjectivist interpretations of the entrepreneur (Gartner, 1985, Stewart (1991, Morris et al, 1994). Thus, examining an entrepreneurial phenomenon as a process opens up the field not only as organisational creation but also as experiments in new organisational form (Anderson, 2000; Hjorth et al., 2015). Furthermore, as stated by Rondi (2016), a process theoretical approach allows researchers to obtain a greater understanding of an interrelated set of creative, strategic, and organisational micro-processes. In line with this thinking, this thesis adopts a process-theoretical approach to understand the micro-processes associated with the dynamics of bottom-up entrepreneurship. A deeper understanding of how these processes work will enable us to advance our theoretical understanding of the entrepreneurship phenomenon within poverty settings.
1.4 Theoretical underpinnings

1.4.1 Entrepreneurship dynamics from a process perspective

Various studies have adopted an overarching epistemology of process to examine the entrepreneurial process. Among these studies, five works are particularly relevant to understand what we know about the process of entrepreneurship. These include the works undertaken by Gartner (1985), Bruyat and Julien (2000), Shane (2003), Baker and Nelson (2005) and Sarasvathy (2006). These works relied on different philosophical stances to address the entrepreneurship process. Gartner (1985) took an interpretive approach and provided a conceptual model of the entrepreneur as involved in a multidimensional process of organizational emergence focused on the creation of a new venture that is independent, profit-oriented, and driven by individual expertise. Adopting a social constructivism view, Bruyat and Julien (2000) made improvements over Gartner’s model by incorporating temporal issues to the initial three dimensions identified by Gartner (1985). They refocus the entrepreneurial process on interdependency between entrepreneur and new value creation. However, this model provides little explanation on how new value is created in the entrepreneurial process (Moroz and Hindle, 2012). Shane’s (2003) model of entrepreneurship draws on economic thinking and a causal approach to decision making to describe how an individual or firm creates new value by searching for sectors where there is a gap between demand and supply (Casson, 1982), in order to discover an entrepreneurial opportunity, and how he or she evaluates whether the opportunity is worth exploiting. A successful identification and evaluation of opportunities leads to the establishment of goals and a plan to exploit the identified opportunity. Thereafter, resources are raised and committed to develop and market a solution that addresses the gap identified.

Alternative emerging theoretical perspectives such as effectuation (Sarasvathy, 2001), and bricolage (Baker & Nelson, 2005) suggest that within particular contexts or under certain conditions the entrepreneurial process may unfold differently. On the one hand, Sarasvathy (2001) took a pragmatist stance and addressed the issues related to the dynamic change of entrepreneurial environments, the unpredictable nature of this environment, and the lack of sufficient information or skills needed by entrepreneurs to readily recognize and evaluate opportunities prior to their exploitation. According to the logic of entrepreneurial effectuation, entrepreneurs assess themselves rather than the opportunity. The process starts with an exploration of the means available, and then goes through interactions with other stakeholders, by which the entrepreneur discovers new means and establishes new goals that allow for revaluation of means and possible courses of action. On the
Chapter 1

other hand, Baker & Nelson, (2005) relied on the concept of "bricolage", introduced by Levi-Strauss (1966), to distinguish the entrepreneurial action within extreme resource constraints. Entrepreneurs operating in penurious environments may uncover opportunities by avoiding challenges and refusing to enact limitations on existing resources, and may use resources in ways for which they were not originally designed, such as repackaging, transposing or recombining them (Levi-Strauss, 1966). This mechanism of repackaging, transposing or recombining resources allows entrepreneurs to leverage resources on hand in novel ways to survive and grow.

Each of these theoretical approaches, particularly the emerging theoretical perspectives of effectuation and bricolage, emphasize that the entrepreneurship process can never be abstracted from its context, and they provide insights into the understanding of the process of entrepreneurship under certain situations. However, their boundary conditions are more restrained and thus may not sufficiently cover the entrepreneurship conditions in poverty settings in developing countries, particularly in their underdeveloped part (BoP). Although the BoP context is characterized by an informal institutional environment and by extreme resource scarcity (De Soto, 2000; Mair and Marti, 2009; Webb et al., 2009), none of the extant theoretical models of the entrepreneurial process that have been established, fully cover the boundary conditions of entrepreneurship within such a context. The BoP in developing countries is considered to be unique, and different from the Western context where most of the entrepreneurial process models have been developed. Furthermore, none of the models is able by themselves to accommodate the multiple levels and perspectives of entrepreneurial theory needed to capture the complexity of the phenomenon. This study, therefore, took an explorative stance and a contextualized approach to examine the entrepreneurial process instead of relying on extant models, frameworks, or theories. By taking such a perspective, it was felt that the research would be able to document and explore the objects of the study more completely and situated in this particular context, without restricting the inquiry to specific tenants of existing models or theories.

1.4.2 Entrepreneurial orientation and approach to the concept

Although there are many kinds of entrepreneurial processes, the fundamental act of entrepreneurial endeavour is a new entry (Lumpkin and Dess, 1996). This new entry can take various forms such as a business start-up, a new product introduction to markets, entering international or global markets, etc. Entrepreneurial Orientation (henceforth EO) refers to the strategic processes and practices that lead
Entrepreneurial Orientation (henceforth EO) refers to the strategic processes and practices that lead to such a new entry (Lumpkin and Dess, 1996). Given that this thesis focuses on the emergence of entrepreneurial actions at the BoP, EO may be an appropriate concept to explore the entrepreneurial process in this context.

Research on EO has focused on its manifestation through three primary underlying dimensions: innovativeness, risk-taking, and proactiveness (Miller, 1983). Innovativeness is the predisposition reflected in the tendency to engage in creativity and experimentation through the introduction of new products/services as well as technological leadership in new product development (Lumpkin and Dess, 1996). Risk taking involves the willingness to take bold actions by venturing into the unknown, borrowing heavily, and/or committing significant resources to ventures in uncertain environments (Lumpkin and Dess, 1996; Wiklund and Shepherd, 2003). Proactiveness is an opportunity-seeking, forward-looking perspective and a tendency to anticipate future needs and to pursue change ahead of the competition (Lumpkin and Dess, 1996). Lumpkin and Dess (1996) introduced competitive aggressiveness and autonomy as additional dimensions of the EO construct. Competitive aggressiveness is the intensity of a firm’s effort to outperform rivals and is characterized by a strong offensive posture or aggressive responses to competition. Autonomy refers to independent actions undertaken by entrepreneurial leaders or teams directed at bringing about a new venture to fruition.

Regarding the different approaches to the EO concept, there are three dominant approaches to the concept: attitudinal, behavioural and some combination of these two approaches. The attitudinal approach defines EO as a firm-level disposition to engage in behaviours such as innovativeness, proactiveness, risk-taking, autonomy and competitive aggressiveness (Voss et al., 2005). This approach has been criticized in the strategic management literature because of the difficulty in distinguishing the construct from entrepreneurial attributes that are intangible in nature, such as entrepreneurial culture, entrepreneurial climate, and entrepreneurial mindset (see, Covin and Lumpkin, 2011).

In contrast to the attitudinal approach, the behavioural approach considers a set of distinct behaviours related to innovativeness, proactiveness, risk-taking, autonomy and competitive aggressiveness (Pearce et al., 2010). However, this approach was also criticized because it views EO as a cluster of attitudes and entrepreneurial behaviours (Anderson et al., 2015; Covin and Slevin, 1991; Miller, 1983). Critics assume that EO cannot at the same time be attitudinal and behavioural (Covin
Moreover, this approach evokes ambiguity and confusion when scales for measuring EO are introduced, reflecting a mix of both attitudes and behaviours (Miller, 2011).

In this thesis, we employ the definition of EO as a method, practice and decision-making style that business owners use to act entrepreneurially (Tang et al., 2008). As this study adopts a process perspective, we focus on understanding and evaluating the actions that lead to and support this strategic orientation through the contextual influences of the BoP environments (Huff and Reger, 1987).

1.4.3 Business performance

Small business performance represents the extent to which the owner-manager’s objective is achieved through the process of an entrepreneurial action. The business literature shows a diversity of reasons for starting a business and owning a business in various entrepreneurial contexts. The owner-manager’s objectives can be grouped into three levels: personal, organizational and social/environmental (Raymond et al., 2013). The small business performance is thus captured by researchers relying on these basic aims or orientations taken by small business owner-managers. The dimensions used to capture this performance are personal, economic, and social/sustainable. The personal performance dimension relies on the small business owner-manager objectives of creating, acquiring or leading a firm (Walker and Brown, 2004; Helen and Raija, 2007; Paul, 2001; Colin, 2002). This dimension originates in recurring needs for ensuring one’s economic security, autonomy, or quality of life (Colin, 2002; Paul, 2001; Toledo et al., 2010). The economic performance dimension captures the firm’s entrepreneurial goals that are more organizational in nature, such as growth and the financial well-being of small firms (Getz and Petersen, 2005; Paul, 2001). The sustainable and social dimension of small firm performance captures the extent to which owner-managers take the social and environmental factors into consideration (Morris et al., 2006; Gundry and Welsch, 2001), in terms of certain specified indicators and stakeholders’ satisfaction (Neely et al., 2002; Hubbard, 2009; Bititci et al., 2000). Thus, small business performance can be assessed based on a single dimension or a combination of dimensions depending on the aim of the study. This thesis uses both personal and economics dimensions of small business performance.
1.5 Challenges to be addressed and research questions

Considerable evidence from prior studies points to dramatic differences in factors important for entrepreneurial businesses between the developed economies of the United States and Western Europe and BoP contexts in D&E economies. More importantly, locally-initiated firms at the BoP have to manage multiple challenges. First, although many entrepreneurial activities all over the world have to deal with resource constraints, BoP contexts pose particular challenges in this respect (Bruton et al., 2013a). BoP contexts represent extreme cases regarding this issue because of resource scarcity (Koveos, 2015; Speakman and Rysova, 2015). Resource constraints manifest themselves in terms of a lack of infrastructure, limited access to key production and transaction factors such as technology, information, capital, and knowledge (DeBerry-Spence, 2010; Fafchamps, 1994; Fafchamps, 1997; Henriques and Herr, 2007). Second, the level of environmental uncertainty, as well as unpredictability due to the underdeveloped or non-existent formal institutions and structures facilitating and supporting business operations, seems unparalleled and higher than that of the Western contexts (Khanna and Palepu, 1997; Puffer et al., 2010; Mair and Marti, 2009; Zoogah et al., 2015). The imperfection of the institutional environment consists of but is not limited to the lack of property rights (De Soto, 2000), limitations in contract law, corruption, unreliable utilities, and inefficient legal systems (Kistruck et al., 2011; Webb et al., 2010). Given these differences, more study and data are needed from the BoP contexts in D&E economies to broaden knowledge on the subject of bottom-up entrepreneurship.

This thesis, therefore, generates better understanding by disentangling the complex relationship between the entrepreneurial orientation and the networking capability development of small firm owner-managers’ and their business performance in a developing economy context, namely, Benin. The general research question of the thesis is:

*How does entrepreneurship emerge and evolve in BoP settings, what kinds of entrepreneurial behaviour is developed and to what extent are these behaviours related to business performance?*

This main research question is addressed in four empirical studies presented in the Chapters 2 through 5. These studies are guided by specific research questions that are described below. Each of the chapters is written as a stand-alone academic paper, with its own specific contributions to the literature.
Chapter 1

The following research questions are addressed:

1. **How does the entrepreneurial process unfold and what are the main stages of this process?**

Chapter 2 aims to answer research question 1, examining the emergence and development of entrepreneurship, and the factors that can be considered as triggering and possibly enabling the entrepreneurial process.

2. **How does entrepreneurial orientation as a strategic practice and critical element of the entrepreneurial process of small firms manifest itself?**

Chapter 3 looks at research question 2 by exploring the behavioural patterns of small-scale entrepreneurs in resource constrained contexts.

3. **How the manifestation of the entrepreneurial orientation of entrepreneurs can be measured?**

Chapter 4 focuses on research question 3 by adopting a three-stage process of scale development, including qualitative and quantitative research, and establishing valid measures for small business entrepreneurial orientation.

4. **How do entrepreneurial orientation and networking capabilities interact in realizing business performance in small firms?**

To answer research question 4, Chapter 5 explores the influence of entrepreneurial orientation on business performance and the contingency role of entrepreneur’s networking capability.

1.6 Methodological approach

The choice of an epistemological stance underlying a particular research project should justify the choice of research methods (Johari 2009). The epistemological basis of this research is a process theoretical approach of entrepreneurship. Aldrich and Martinez (2001) distinguish between two major methodological perspectives to conduct process research in the field of entrepreneurship: event-based and outcome-based approaches (Van de Ven and Engleman, 2004). The event-driven approach is concerned with understanding how entrepreneurial actions evolve over time and why they evolve in this way (Van de Ven and Huber, 1990). The data used to understand the process, therefore, is mainly composed of stories such as what is going on, who is doing what, how and when. That is, to
understand patterns in events, activities, actors, strategic choices, and outcomes. Thus, the process research approach in entrepreneurship explicitly incorporates temporal progressions or sequences of activities as elements of description, explanation, and understanding of how things develop and change over time (Van de Ven, 1992). The event-driven approach is used to address the issues of “how and why change unfolds” (Langley, 1999).

In contrast to the event-driven approach, the outcomes-based methodology presumes a set of behaviours and activities conducted between a particular start and end point. The process is represented empirically as a fixed entity measured by relevant categories of constructs or variables that are then related to particular outcomes of interest (Langley et al., 2013). The attributes of these variables can vary along numerical scales. The outcomes-based approach to entrepreneurial process is appropriate to answer the "what" questions.

While these two methodological approaches to the entrepreneurial process have fundamentally different ontological and epistemological assumptions, both are required to get a full understanding of the phenomena, fill the gaps and detect blind spots generated by each epistemological approach (Langley, 1999). McKelvey (2004) contents that a drawing together of both approaches can allow a better understanding of a complex phenomenon such as entrepreneurship. Moreover, in the context within which the present study was conducted, entrepreneurship is not only an economic initiative. It also integrates socio-cultural institutions and cultural rules that create expectations which make the entrepreneurship phenomenon complex (Khavul et al., 2009; Zoogah et al., 2015). On the one hand, the event-driven approach is particularly recommended to get insights into and to have a holistic sequence of events when studying entrepreneurship or strategic behaviour. This is because this approach is sensitive to the temporality of events and actions that occur, detects patterns among them, understands their interrelations and even their recursive nature. On the other hand, the outcomes-based approach offers a complementary view to the event-driven approach in enabling the capture of particular relationships, and detects efficient causes of an outcome among final causes unveiled with the event-driven approach (Langley, 1999). Drawing together both approaches can strengthen the evidence-based knowledge (McKelvey, 2004).

To capture the dynamics of entrepreneurship of small scale firms and the manifestation of their entrepreneurial behaviour, this thesis initially adopted the event-driven perspective and narrative methods which involve the construction of detailed stories based on raw data (Langley, 1999) (Chapter...
2 and chapter 3). Then, the outcomes-based view and variance-process method (Mohr, 1982) were used to develop measures for small firms' entrepreneurial orientation (Chapter 4) and to actually measure the relationship between entrepreneurial orientation and business performance (Chapter 5).

1.7 Context of the study

This study was conducted in the southern part of Benin. Benin is a West African country with a population of approximately 10.9 million people (World Bank, 2017). Agriculture is the most important economic sector, with approximately 70% of the country's workforce gaining their revenue from agriculture (SCRP-Benin, 2011, World Bank, 2014). The country's development strategy and poverty reduction strategy has the objective of promoting sustainable growth and economic transformation with a stable macro-economic environment, and enhancing the integration of the country's economy within the regional and global economy. In this endeavour, due emphasis has been given to the private sector and business development.

Benin's potential for agribusiness lies in agricultural and agro-processing products such as fruits and juice (e.g., pineapple, orange, and mango), nuts (e.g., cashew and shea nuts), organic cotton, and fresh vegetables (Adékambi, 2015; Arinloye, 2013; Glin, 2014; Singbo, 2012). Agribusiness offers a good possibility to increase economic growth due to the availability of all the ingredients essential for a competitive agribusiness industry in the country: raw materials, low wages, and strong demand for products both on the domestic and regional markets. This gives the country a comparative advantage over the neighbouring countries in the West-African region. Likewise, Benin has a resource advantage in the export of shrimps and semi-processed shea butter (Adékambi, 2015; Dabadé, 2015).

Notwithstanding the fact that Benin's economy has had such potential for agribusiness for the past decade, the country, as most of the other countries in West Africa, has been among the slow-growing economies on the continent. The gross domestic product (GDP) growth has equalled around 4% annually. Poverty remains widespread with a national rate of 40.1% in 2015 (World Bank, 2017). The informal sector offers jobs to more than 90% of the labour force (World Bank, 2017) and constitutes two-thirds of the GDP (Bio Goura and Kokou, 2009). Few studies on business in Sub-Saharan Africa have attributed low growth to the fact that many small firms from the region often perform poorly, in part because of difficulties in accessing technologies, information, skills, and finance (Masakure et al., 2008; Masakure et al., 2009; Shibia and Barako, 2017). Despite external
interventions aimed at reducing these difficulties, the results have been poor (Crépon et al., 2011; Karlan and Zinman, 2010; Karlan and Valdivia, 2011; Cho and Honorati, 2014). In view of this situation, the understanding of the dynamics of successful enterprises and the strategies developed to cope with difficulties in the specific context of Benin, provides important insights which can be used for the promotion of entrepreneurial activities both in Benin and other developing countries.

1.8 Structure of the thesis

This thesis is organized into six chapters, including a general introduction (chapter 1) and a general discussion (chapter 6). The structure is presented in Figure 1.1. Chapter 2 (The Process of Entrepreneurship at the Base of the Pyramid in Developing Countries: A Case of Vegetable Farmers in Benin), the first empirical chapter of this thesis, serves to commence the analysis of bottom-up entrepreneurship in poverty settings in D&E economies. It follows research question 1 of the thesis and raises issues relevant to the other empirical chapters. For this reason, it looks at the whole process and provides an overview of the dynamics, the main stages, and critical variables of the entrepreneurial process. The chapter extracts insights from fresh-vegetable producers (agropreneurs) in southern Benin. The results suggest a three-stage model reflecting the dynamics and contingencies of the entrepreneurial process, far more complex than the classical models from the mainstream entrepreneurship literature. The key aspects are as follows: (1) entrepreneurial action often emerges at the crossroads between the individual motivations, the challenging situations and disruptive events, and the need to structure the uncertainties they are experiencing; and (2) entrepreneurs focus on the resource (tangible and intangible) mobilization to pursue opportunities developed.

Chapter 3 (Understanding the Patterns of Small Business Entrepreneurial Orientation) builds on the results of chapter 2 and explores the micro-process of entrepreneurial orientation by examining the behavioural patterns of entrepreneurs. An inductive qualitative approach was adopted, and in-depth interviews (N=17) have been conducted with entrepreneurial businesses. An inductive approach is used to understand the manifestation of the entrepreneurial orientation of small-scale firms. The study reveals (1) two context-specific dimensions of EO–collaborativeness and resource-acquisition orientation, and (2) demonstrates that innovativeness, proactiveness, and risk-taking dimensions are necessary but not sufficient to capture the manifestation of entrepreneurial orientation of small firms in D&E economies, and (3) suggests a new conceptualization of the EO of small firms in resource-constraint and weak institutional environments.
Chapter 1

From the insights provided by Chapter 3 on the dimensions of the entrepreneurial orientation construct, Chapter 4 (Developing Measures for Small Business Entrepreneurial Orientation) develops and validates measurement scales for the contextualized EO. Data from this study (1) provided support for the content and discriminant validity of a four-dimension scheme encompassing innovativeness, proactiveness, collaborativeness and knowledge-acquisition orientation, and (2) revealed the potential measurement models that can be used to test the relationships with other variables.

Chapter 5 (Entrepreneurial Orientation Business Performance: The Role of the Entrepreneur’s Network Capabilities) explores the direct effect of EO and the potential mediating role of entrepreneur’s networking capability on business performance. This chapter demonstrates that, unlike previous research conducted in developing economies which suggested a linear and positive relationship, data on small firms from BoP reveal that there is rather an inverted U-shaped linkage between EO and business performance. In addition, the results establish that the social process outside the firm, in the form of network development, further maximizes the business performance by flattering and shifting the turning point of the inverted U-shaped to higher levels.

Chapter 6, synthetizes and discusses the findings of the previous chapters in concert, resulting in implications for theory and practice. The chapter ends by discussing the limitations of the research and directions for future research.
Chapter 1

From the insights provided by Chapter 3 on the dimensions of the entrepreneurial orientation construct, Chapter 4 (Developing Measures for Small Business Entrepreneurial Orientation) develops and validates measurement scales for the contextualized EO. Data from this study (1) provided support for the content and discriminant validity of a four-dimension scheme encompassing innovativeness, proactiveness, collaborativeness and knowledge-acquisition orientation, and (2) revealed the potential measurement models that can be used to test the relationships with other variables.

Chapter 5 (Entrepreneurial Orientation Business Performance: The Role of the Entrepreneur’s Network Capabilities) explores the direct effect of EO and the potential mediating role of entrepreneur’s networking capability on business performance. This chapter demonstrates that, unlike previous research conducted in developing economies which suggested a linear and positive relationship, data on small firms from BoP reveal that there is rather an inverted U-shaped linkage between EO and business performance. In addition, the results establish that the social process outside the firm, in the form of network development, further maximizes the business performance by flattering and shifting the turning point of the inverted U-shaped to higher levels.

Chapter 6, synthesize and discusses the findings of the previous chapters in concert, resulting in implications for theory and practice. The chapter ends by discussing the limitations of the research and directions for future research.

Figure 1.1: Outline of the thesis
The Process of Entrepreneurship at the Base of the Pyramid in Developing Countries: A Case of Vegetable Farmers in Benin

Poverty reduction continues to be a priority in many countries around the world. To facilitate economic growth and reduce persistent poverty, it is increasingly recognized that multi-dimensional perspectives should be taken. These include market-based approaches to generate economic and social value for the poor (Miller et al., 2012). Since the entrepreneur has been put at the centre of progress, scholars have highlighted the transformational role that entrepreneurship plays in creating economic values (Baumol and Strom, 2007; Audretsch et al., 2006; Acs et al., 2009; Gries and Naudé, 2010) as well as in social change for individuals, communities and societies. Entrepreneurship has therefore been suggested as a potential path to move up the socioeconomic ladder (Ahlstrom, 2010; Alvarez et al., 2015; Baumol and Strom, 2007; Bruton et al., 2013b). Similarly, recent discussions have focused on the transformative potential of inclusive capitalism by using the market economy to engage low-income people at the bottom/base of the pyramid (BoP) in economic activities (Collier, 2008; Easterly, 2007). For example, for-profit organizations such as multinational enterprises and large domestic companies have been invited to engage with BoP people on a mutually positive basis (Prahalad and Hammond, 2002; Sjauw-Koen-Fa et al., 2016). Some other forms of entrepreneurship such as social entrepreneurship also focus to a large extent on social value and social change, which is generated through philanthropic efforts by individual entrepreneurs or dynamic Non-Governmental Organizations (NGOs) and development agencies (Rindova et al., 2009; Short et al., 2009). While these approaches have significant positive impact in some countries, poverty reduction in impoverished regions cannot merely rely on multinational enterprises, social ventures or the central government, but must depend on the locally initiated ventures by poor and their ability to plan and function on their own (Easterly, 2013).

The emergence of local entrepreneurs is critical to tackle the poverty issue, because BoP entrepreneurs due to their focus on productivity and growth (Nichter and Goldmark, 2009; Mano et al., 2012; Grimm et al., 2012; Amin and Islam, 2015; Li and Rama, 2015) can contribute to create economic value for themselves, but also to provide economic and social value to the community at large, raising millions of people out of extreme poverty (Bruton et al., 2015a; Sridharan et al., 2014; Tobias et al., 2013). In addition, locally initiated entrepreneurship represents important sources of income and opportunity for owners, who are able to increase their income (Smith and Pezeshkan, 2016).
2.1 Introduction

Poverty reduction continues to be a priority in many countries around the word. To facilitate economic growth and reduce persistent poverty, it is increasingly recognized that multi-dimensional perspectives should be taken. These include market-based approaches to generate economic and social value for the poor (Miller et al., 2012). Since the entrepreneur has been at the centre of progress, scholars have highlighted the transformational role that entrepreneurship plays in creating economic values (Baumol and Strom, 2007; Audretsch et al., 2006; Acs et al., 2009; Gries and Naudé, 2010) as well as in social change for individuals, communities and societies. Entrepreneurship has therefore been suggested as a potential path to move up the socioeconomic ladder (Ahlstrom, 2010; Alvarez et al., 2015; Baumol and Strom, 2007; Bruton et al., 2013b). Similarly, recent discussions have focused on the transformative potential of inclusive capitalism by using the market economy to engage low-income people at the bottom/base of the pyramid (BoP) in economic activities (Collier, 2008; Easterly, 2007). For example, for-profit organizations such as multinational enterprises and large domestic companies have been invited to engage with BoP people on a mutually positive basis (Prahalad and Hammond, 2002; Sjauw-Koen-Fa et al., 2016). Some other forms of entrepreneurship such as social entrepreneurship also focus to a large extent on social value and social change, which is generated through philanthropic efforts by individual entrepreneurs or dynamic Non-Governmental Organizations (NGOs) and development agencies (Rindova et al., 2009; Short et al., 2009). While these approaches have significant positive impact in some countries, poverty reduction in impoverished regions cannot merely rely on multinational enterprises, social ventures or the central government, but must depend on the locally initiated ventures by poor and their ability to plan and function on their own (Easterly, 2013).

The emergence of local entrepreneurs is critical to tackle the poverty issue, because BoP entrepreneurs due to their focus on productivity and growth (Nichter and Goldmark, 2009; Mano et al., 2012; Grimm et al., 2012; Amin and Islam, 2015; Li and Rama, 2015) can contribute to create economic value for themselves, but also to provide economic and social value to the community at large, raising millions of people out of extreme poverty (Bruton et al., 2015a; Sridharan et al., 2014; Tobias et al., 2013). In addition, locally initiated entrepreneurship represents important sources of income and opportunity for owners, who are able to increase their income (Smith and Pezeshkan,
Chapter 2

This form of entrepreneurship offers opportunities for the poor to function on their own (Easterly, 2013), and represents a means through which poor people can break the poverty cycle (Karnani, 2007a; Karnani, 2007b; Karnani, 2007c; Karnani, 2008b; Karnani, 2008a; Bruton et al., 2013b). It provides a bulk of jobs and livelihoods for community members, allowing households to raise their living standards (Kimhi, 2010; Tamvada, 2010; Bruton et al., 2013b). Furthermore, local enterprises are critical part of upstream and downstream value chains for larger companies, since many raw materials and commodities such as tropical agricultural and handicraft products are locally produced at the BoP by micro and small firms and bought by multinational companies, before they enter the consumer market. Local enterprises therefore provide multinational companies with a more stable supply of quantity and quality of products (London et al., 2010). Finally, locally initiated enterprises also represent good distribution channels for final products imported to the Bop contexts in smaller packaging for smallholder consumers (Arnould and Mohr, 2005; Dolan and Scott, 2009).

Altogether, local entrepreneurship primarily creates new businesses at the BoP similarly to their counterparts in developed economies (Michelacci and Silva, 2007).

Given the importance of locally initiated enterprises, many interventions have been designed and implemented to foster and strengthen these ventures in developing countries (Cho and Honorati, 2014). However, the results are less conclusive, with efforts often failing to improve the entrepreneurial activities of local smallholder entrepreneurs (Crépon et al., 2011; Karlan and Zinman, 2010; Karlan and Valdivia, 2011). Many reasons may explain these results and one of the key reasons is the disconnection between the theoretical background supporting these initiatives and the practice of entrepreneurship at the BoP level. The spatial, historical, professional, social, and institutional aspects of context can be different in different regions (Trettin and Welter, 2011; Welter, 2011; Zahra and Wright, 2011). Yet, there has been a strong tendency to see business support schemes and policy in developing countries framed on the basis of the theories that originated from Western countries, and these frameworks were applied without modification to fit the new contexts. However, entrepreneurship seems to have its own characteristics in each context. (Zahra et al., 2014; Trettin and Welter, 2011; Zahra and Wright, 2011) argued that research needs to be placed within its natural settings in order to get a deeper understanding of entrepreneurship origins, forms, functioning and diverse outcomes. Due to the dramatic differences between the BoP and Western contexts within which entrepreneurial activities take place, entrepreneurship characteristics and the way the process unfolds may be different as well. Furthermore, the processes by which small enterprises in BoP create
The process of entrepreneurship at the BoP

value and innovative solutions are still assumed rather than theoretically and empirically examined. Scholars in entrepreneurship (e.g., Kiss et al., 2012; Webb et al., 2013) as well as in business and economic development (e.g., Bruton et al., 2013a; McGahan, 2012; Webb et al., 2009; Yang, 2011; Bruton et al., 2013b) have highlighted a paucity of empirical research and a lack of conceptual clarity on theoretical frameworks and empirical evidence to guide our understanding of local entrepreneurship at the BoP level.

Thus, in the present study, we examine a less investigated entrepreneurial case of vegetable farmers in poverty settings in Benin. We will apply a multi-layered conceptualisation, since this helps to transcend individual agent and structural-level analyses of entrepreneurship subject as well as the reductionist positioning of the dominant paradigms in entrepreneurship research: positivism and social constructivism or constructionist (Tatli et al., 2014). Then, we will suggest an epistemological direction for scholars seeking to connect with the situated entrepreneurial actions of people operating within or near to poverty settings and less regulated institutional environment. In so doing, the study builds on and expands current debates on entrepreneurship multilevel analysis and contextualization, which allows the mapping out of micro-processes in order to better understand the mechanisms by which they work. Accordingly, the examination includes a focus on these micro-processes determinants, enablers, contingencies, contexts and outcomes.

The paper will first provide support for the theoretical foundation of BoP settings and the implications for local entrepreneurial entities settling within these contexts. Next, dominant and emerging perspectives on entrepreneurship are presented. In the second part of the paper, to better understand how entrepreneurial actions emerge and evolve, we conducted an in-depth case study of fresh vegetable producers in southern Benin. This country is selected as it represents one of the poorest countries in Sub-Saharan Africa (SSA) and individuals involved in this business represent typical BoP people. Taking a micro-process perspective, the study gives voice to these agropreneurs (agricultural entrepreneurs) in order to understand the genesis of their micro-enterprises and some significant phases of the process, how their economic activity takes shape, and to identify specific threats and facilitating conditions that influence the way the process unfolds. This case provides us with a considerable theoretical frame and illustrates the interplay of self and circumstances, contingency factors and economic and social outcomes. We employed this case as a framing device to reveal the entrepreneurship process at poverty settings. Through this connection, we argue that studies
of local entrepreneurship within poverty settings can gain a more fine-grained understanding by keeping a multilevel analysis through a relational perspective.

2.2 Contextual embeddedness of the entrepreneurial process

The contextual embeddedness perspective, which is a narrower focus lens of embeddedness theory (Granovetter, 1985; Uzzi, 1997), contends that individuals or economic entities such as small enterprises and the context within which these enterprises are initiated and developed are strongly intertwined (De Clercq and Voronov, 2009), that context matters (Welter, 2011; Zahra et al., 2014), and that context can play a significant role in shaping the entrepreneurial process (Jack and Anderson, 2002). Contextual embeddedness can be beneficial to the process of entrepreneurship. For example, it enables individuals or firms to get access to resources, information and emotional support (Casson and Giusta, 2007; Slotte-Kock and Coviello, 2010). However, contextual embeddedness can also be a liability. For example, when social responsibilities supersede economic imperatives. This situation is described by Uzzi (1997) as “over-embeddedness”. Understanding entrepreneurial milieu is therefore important for examining the dynamics of the entrepreneurial process (Parkinson et al., 2016; Johan and Alistair, 2017; Korsgaard et al., 2015) and requires to delineate the boundaries for a deeper examination. In the next section, we briefly describe the specifics of BoP contexts in order to gain insights into contextual embeddedness of locally initiated entrepreneurial activities.

2.3 BoP contexts

From an entrepreneurial-oriented perspective, BoP scholars typically distinguish BoP from the top of the pyramid (ToP) through socioeconomic conditions, and institutional environment. In terms of socioeconomic conditions, BoP features significant resource scarcity: that is, extremely low levels of revenue (Karnani, 2007; Prahlad, 2005), limited access to key production factors such as technology, information, capital and knowledge (DeBerry-Spence, 2010; Fafchamps, 1994; Fafchamps, 1997; Henriques and Herr, 2007), and infrastructures (e.g., roads, communication networks and transportation systems) that facilitate production and access to the market (Chen et al., 2003; London et al., 2010). Equally important is that BoP people are geographically dispersed in rural areas (e.g., Zoogah et al., 2015). This relative isolation typically leads to less contact with national or international markets.
In terms of the institutional environment, locally initiated BoP entrepreneurship is embedded in the informal institutional environment because formal institutions, which refer to the existence of legally valid and enforceable norms, status, and regulations, are weak or non-existent (De Soto, 2000; Mair and Marti, 2009; Webb et al., 2009). Such an inadequate institutional environment complicates the development of business activities, since building legitimacy and trust is both a necessity and a challenge for them (Wheeler et al., 2005). This aspect of the institutional environment has been the focus of many studies in more mature economies. Studies often find formal institutional voids (Bruton et al., 2010; Mair and Marti, 2009), a striking feature of BoP contexts. The strategic actions and organizational processes that entrepreneurs use to compete and prosper in these BoP contexts have therefore been the focus of research (e.g., Anderson and Billou, 2007; Tasavori et al., 2015).

When resource scarcity couples with institutional challenges, local micro and small enterprises are fraught with uncertainty (Mehta and Shah, 2003). To cope with these challenges and survive in their business activities, entrepreneurs rely on adaptive mechanisms. Individuals and entrepreneurial entities, therefore, rely on informal institutions as a means of organizing and transacting (Webb et al., 2014). To confront financial resource scarcity, some entrepreneurs rely on informal institutions such as money lenders who tend to dominate the local debt market and often charge even more exorbitant interest rates (Karmakar, 2000). Strong traditional ties within communities (such as kinship, religion, or race) replace more formalized institutions (Arnould and Mohr, 2005; London and Hart, 2004). As a result, transactions are governed by relationships and networks (Rivera-Santos and Rufin, 2010).

In detail, we propose that BoP contexts provided in three levels (socioeconomic conditions, geographic position and institutional environment) be central in analysing the mechanisms whereby local entrepreneurship emerges and evolves.

The specificities of BoP contexts continue to intrigue and challenge researchers. On the one hand, the question is whether the entrepreneurial process of locally initiated enterprises and fully embedded in BoP settings represents just one of extant theoretical perspectives on entrepreneurship (Steyaert, 2007). If so, the question becomes how contexts and individuals at the BoP level might change the trajectory of this process. On the other hand, a more intriguing question is whether the specificities of BoP settings may lead to a truly new and revolutionary entrepreneurial process (Anderson and Obeng, 2017). Next, we briefly review some dominant and emerging perspectives in the field of the entrepreneurship as well as their epistemological and ontological positions.
Chapter 2

2.3 Dominant and emerging paradigmatic perspectives on entrepreneurship

How scholars understand and theorise entrepreneurship has different points of departure. Understanding entrepreneurship is largely shaped by the paradigmatic posture assumed by researchers, and each paradigm has its own ontological, epistemological and methodological assumptions that affect the way the inquiry is conducted. First, research which is based on the positivist paradigm assumes that the world is independent of human consciousness and that the social world is made up of external structures. Positivist functionalism approaches generally minimise or remove context from analysis (Hjorth et al., 2008), disconnecting theories from the everyday experiences. From these approaches, the agency of the entrepreneur is understood in a way that allows generalising human behaviour. For example, the model of entrepreneurship that draws largely on economic thinking describes how individuals or firms take entrepreneurial actions by searching for areas where the demand for a product or service exceeds supply (Casson, 1982) to discover an entrepreneurial opportunity, and evaluate whether it is worth exploiting (Shane and Venkataraman, 2000). The entrepreneurs’ goals are to find the most productive use of resources. This view also suggests that opportunities arise out of the entrepreneur’s alertness to information asymmetries (Dutta and Crossan, 2005; Shane, 2003). Alertness refers to a motivated tendency of entrepreneurs to formulate an image of the future by seeking out opportunities that have been previously overlooked (Kirzner, 1985). The relationship between alertness and opportunity identification is considered a function of both the knowledge possessed by the entrepreneur and how this knowledge is processed (Gaglio and Katz, 2001). Subsequently, the process remains basically goal-oriented and largely determined by competencies related to alertness, recognition and exploitation of opportunities, followed by business growth (Venkataraman, 1997). Consequently, individual entrepreneur traits determine the degree of choice displayed by entrepreneurs in entrepreneurial processes, thereby reducing decision-making to individual agency.

Second, a number of scholars have deployed a social constructionist lens in understanding and shaping the process of entrepreneurship (Chell, 2000; Fletcher, 2006; Steyaert, 1997). One of the main lines of reasoning for the constructionist perspective is that entrepreneurship can only be understood in understanding the social interaction between individuals by which entrepreneurship is constructed in their social and cultural context (Berger et al., 2002). Through this lens, entrepreneurship is not a thing, but a way of being. For instance, the constructionism perspective has extended the debate from opportunity as an objective reality, existing before the entrepreneurial
process starts and awaiting discovery by an alert individual, to a phenomenon of creation. The creationist view argues that what turns out to be the opportunity cannot be known in advance or anticipated. Rather, they are part of society and embodied in the creative view that emphasises processes of enactment, interpretation and creativity (Gartner and Carter, 2003). This view posits that opportunities do not exist independently but are formed through the interaction of an entrepreneur or entrepreneurial team with the context (Steyaert, 2007). According to the advocates of this perspective and with their interpretative narrative and discursive approaches (Lavoie, 2015; Bjerke, 2007), the phenomenological perspective on entrepreneurial opportunities are not fully developed at the beginning of the entrepreneurial process. Besides the fact that entrepreneurial opportunities are subjective, socially constructed, and created by an entrepreneur through a process of enactment. In resource penurious environments, Baker and Nelson (2005) posit that entrepreneurs avoid challenges by socially constructed resource in applying combinations of available resources and using physical, institutional, or human resources in novel ways.

These contributions lead to a polarisation that challenged normative philosophical assumptions within the field (Monica and Johann, 2009) and highlighted entrepreneurship as a concept with multiple meanings that are both contingent and contextual. However, as a consequence of high polarisation of these two dominant research paradigms, the resulting frames regarding methodological (qualitative versus quantitative) and ontological issues (structure versus agency) lead to a reductionist approach (Tatli et al., 2014) and fragmentation (Anderson et al., 2012).

Emerging perspectives also provide compelling arguments against normative attitudes and challenge dominant approaches. A pragmatic framework (Watson, 2013) permeates theories such as effectuation (Sarasvathy, 2001). The contextualisation perspective presents entrepreneurship as a rooted phenomenon that can be understood with reference to context and contingency (Mason and Harvey, 2012), and the understanding of the context (Chalmers and Shaw, 2015). Zahra (2007), Welter (2011), Steyaert (2011) and Zahra and Wright (2011), have contributed to emphasize this critical role of context and have promoted postpositivism paradigmatic approaches to entrepreneurship.

Yet, despite these advances about the ontological problems brought by reductionism of dominant perspectives in understanding entrepreneurship, an epistemological question remains over
how seemingly complex phenomenon can be robustly accessed and convincingly interpreted by researchers.

A potential remedy lies in pluralistic and complementary perspectives (Deetz, 1996; Seymour, 2006) that expand beyond the contextualization. Thus, we do not adopt any sort of specific theoretical framework in this paper. We examine entrepreneurship as a dynamically evolving phenomenon which gains meaning and shape from complex relationships in its situated context generated through the interdependence of agency, structures, and entrepreneurial actions.

2.4 Research methods

In line with the aim outlined in the first part of this article, the study will focus on three main research topics: (1) the ways a given type of local entrepreneurship emerges at the BoP level; (2) how the process evolves and takes shape; and (3) what factors enable and constrain the process. In order to accomplish this understanding, we build on emerging strands by conducting our research within or close to where things happen (Steyaert and Landström, 2011). To this end, we investigated micro-agropreneurs who run vegetable production businesses in Southern Benin. The vegetable producers' case in Benin has been chosen for many reasons. First, since a case for research must be driven by the aim of better understanding the phenomena of interest (Buchanan, 2012), smallholder (traditional) producers, including fishermen transition to agropreneurial activities is a complex process, as it is affected by many factors including political processes, socioeconomic conditions, individual determinants and informal institutional environment within which the process takes place. Therefore, producers involved in fresh vegetable business can be seen as a critical or a revelatory case (Patton, 2002) to understand the process. Second, the economy of the majority of countries in SSA is based on agricultural sector that employ more than 60% of the workforce (Zoogah et al., 2015), we sought out cases in this sector that were more entrepreneurial oriented. At the time of data collection, vegetable production business development in Benin (Figure 2.1) provided a particularly interesting context to study the development of entrepreneurship at the BoP level. Benin is a Western African country with a population of approximately 10 million people (Word Bank, 2014). Despite a relative increase in its economic growth rates over the last decade, from 2.7% in 2009 to 5.4% in 2012, poverty is still widespread. Approximately 75% of the Beninese population live on less than 2 dollars a day (Word Bank, 2010). Agriculture is the most important economic sector, with approximately 70% of
Finally, vegetable production-based agribusiness represents a typical entrepreneurial activity because it creates economic value in the sense that these businesses result in sustained returns for a number of parties including the owners and the community within which they are embedded in. Vegetables are high value crops and the production-based business is the largest economic activity which contributes to the livelihood provision for the owners and managers. In the same way it is important for self-employment, it also contributes to poverty reduction within the community by providing employment and wages to labourers (Weinberger and Lumpkin, 2007), since agricultural production is more labour intensive. Moreover, labour demands also arise in the postharvest activities such as transportation, packing, sorting, grading, and cleaning is labour-intensive. The additional labour requirements are met through hired labour, benefiting small farmers and landless labourers (Maertens, 2006; Weinberger and Lumpkin, 2005).

2.5 Data collection and analysis

We adopted an inductive qualitative case study approach to gather data from producers. In general, case studies are chosen when researching a less well-known phenomenon. As few studies address the question related to the entrepreneurial process of people living within or close to BoP settings, this method is well suited for our purpose. Firmly grounded in empirical evidence, a case study is likely to generate novel insights, and embodies a deep understanding of the dynamics of a single setting, but the conclusions reached are not generalizable to other settings (Jack et al., 2008). As we set out to examine the mechanisms whereby BoP entrepreneurship emerges and evolves, reflection, and analytical inspiration are the aims, rather than generalisation.

A purposeful sample of respondents that had the necessary characteristics to highlight key factors about the activities were selected. We were interested in finding a region that could represent an area where a large number of individuals are involved in vegetable production. This resulted in choosing the department of Mono where about 57% of vegetable production comes from (Figure 2.1). We then extended data collection to the three other departments of southern Benin, following Miles and Huberman’s (1994) confirming or disconfirming sampling logic, in order to help us elaborate on our findings, identify possible exceptions, and add more variance to the data. According
to Patton (2002), patterns emerging from great variation based on a purposive sampling are of particular interest and value in capturing the core experiences and central, shared dimensions of a setting or phenomenon.

To accommodate the exploratory nature of the study, we combined focus group discussions (N=5) of 32 participants in total and in-depth interviews (N=36) with respondents. The purpose of narrative interviews is to elicit a story from the interviewees, describing actual practices and events (Kvale, 2006). Narratives are well suited to yield descriptions of processes and experiences as they are expressed and enacted in actual practices (Pentland, 1999), and related interdependencies. Three focus group discussions (FGDs) in groups of 5 to 8 included younger producers aged 15-35 and the two other FGDs included older producers aged 36-50+ years. Limiting the number to a maximum of eight participants per FGD, to ensure a suitable amount for each participant to express opinions and discuss relevant items (Krueger and Casey, 2000).

First, through FGDs, we explored more general patterns and factors influenced by opinions (Morgan and Spanish, 1984; Krueger and Casey, 2000). We relied on the list of producers available at the level of the Ministry of Agriculture (CARDER) to select the participants. We invited a moderator from the local staff of CARDER. The moderator led the discussion, established an atmosphere of trust, and promoted free discussions. We witnessed how sensitivities to agreements versus disagreements as well as dominant views and differing opinions provided insights into the overall

Figure 2.1. Southern Benin with the study locations

To accommodate the exploratory nature of the study, we combined focus group discussions (N=5) of 32 participants in total and in-depth interviews (N=36) with respondents. The purpose of narrative interviews is to elicit a story from the interviewees, describing actual practices and events (Kvale, 2006). Narratives are well suited to yield descriptions of processes and experiences as they are expressed and enacted in actual practices (Pentland, 1999), and related interdependencies. Three focus group discussions (FGDs) in groups of 5 to 8 included younger producers aged 15-35 and the two other FGDs included older producers aged 36-50+ years. Limiting the number to a maximum of eight participants per FGD, to ensure a suitable amount for each participant to express opinions and discuss relevant items (Krueger and Casey, 2000).

First, through FGDs, we explored more general patterns and factors influenced by opinions (Morgan and Spanish, 1984; Krueger and Casey, 2000). We relied on the list of producers available at the level of the Ministry of Agriculture (CARDER) to select the participants. We invited a moderator from the local staff of CARDER. The moderator led the discussion, established an atmosphere of trust, and promoted free discussions. We witnessed how sensitivities to agreements versus disagreements as well as dominant views and differing opinions provided insights into the overall
topics. The FGDs were semi-structured and based only on a general subject or issue such as: What motivates individuals to engage in vegetable farm business (agropreneurship) and why do they do it? How do these agropreneurs operate in practice? Focus group discussions (about one and a half hour each) were recorded and transcribed. We examined, coded, categorized, and synthesized the transcripts per focus group discussion.

Second, through in-depth interviews, we complemented and strengthened the data collected through FGDs for understanding discrepancies among informants and gaining additional perspectives and issues (Miles et al., 2013). We interviewed 36 vegetable producers: 15 during the first round of data collection (Mono) and 21 during the second, using a face-to-face semi-structured interview technique. Interviews and FGDs were conducted in French, translated into English, and then back-translated it to French to check for consistency. Building on this initial data, the research expanded to additional locations and communities during the second round, where additional respondents were identified. Accordingly, categories and concepts were continuously refined as a result of insights captured during a series of interviews. These techniques were used because they offer sufficient flexibility to approach different participants differently while still investigating the same topic (Noor, 2008).

Interviews were open-ended and followed a protocol that involved an initial unstructured narrative section (Mishler, 1991) in which the interviewees were asked to tell life stories, and give an account of their commitment path. The second section of the interview consisted of a set of specific questions, probing: (1) the start-up stage (2) the productions and transaction processes; (3) the means used and the difficulties they faced and how they affected the activities; and (3) personal characteristics or situations that facilitated or impeded activities. These questions provided the core building blocks of the second section of the interview. Additional questions emerged from the specific participant conversations, as well as from insights captured in previous FGDs and interviews, using the constant comparison analysis technique. During the course of the interviews, respondents often mentioned processes, regular actions or interactions as an example to illustrate a point. When available, these processes and actions were collected throughout the observation. As this iterative process guided the sampling, the selection of respondents for in-depth interviews became focused on factors that enable entrepreneurial actions, the strategies developed to cope with challenges and the reasons behind such a behaviour. In general, we reached data saturation after 30 interviews. The participants cover
distinctly different production environments, a broad range of ages, ethnicity, and years of experience in vegetables production business.

The data analysis of FGDs and in-depth interviews consisted of four phases. First, we began the analysis by transcribing interviews to capture their overall experiences and perspectives. These summaries, combined with the extensive amount of time spent in the research settings, and observations, were designed to help us develop a clear understanding of the behaviours, experiences and perspectives of the participants (Easterby-Smith et al., 2008). Second, interview transcripts were imported into ATLAS.ti 7, where they were coded and developed into first-order concepts. The goal of this second phase of our analysis was to code anything in the text of the interviews that would pertain to the business of producers. Throughout this coding phase, we aimed to remain as close as possible to the voices and experiences of our participants because they should be considered as “knowledgeable agents” who are able to explain their thoughts, intentions, and actions (Gioia et al., 2013). Third, we organized our first-order concepts into more abstract second-order themes, and identified connections amongst these themes to build aggregate theoretical dimensions. We relied on axial and selective coding procedures (Strauss and Corbin, 1998). We therefore identified those codes that we believed were most representative of the data by focusing on codes that appeared more frequently. A code had to be mentioned by at least three interviewees or FGDs (about 10 per cent) in order for us to retain it as a valid second-order theme. Finally, once we had identified our second-order themes, we considered whether and how they might be connected to one another. This allowed us to identify aggregated dimensions, which helped us to consider broader interconnections at a highly abstract level. Table 2.1 provides a summary of how narrative parts from interviews were coded into concepts and themes.

The data collection and the four phases of the analysis described above have followed nonlinear steps. We performed data collection as well as initial data analyses by trying to figure out patterns in the data (data coding, development of first order concepts and their organization into second order themes) simultaneously. Through the simultaneous data collection, coding, and initial analyses our goal was to identify any new conceptual ideas that were related to the phenomenon of interest. After the FGDs and a series of interviews, preliminary analyses were generated to reflect what the participants had shared, what needed more exploration, and what primary categorical ideas or themes emerged. We modified the protocol for subsequent interviews in order to take advantage of data from previous interviews informing the questions for subsequent interviews (Spradley, 1979).
The flexibility of this approach helped to ensure that we were open to the emergence of new themes (Gioia et al., 2013). As the research progresses, we started seeking similarities and differences among the patterns and themes. We reached saturation when no additional data to develop new themes or properties of themes was found in subsequent interviews. From that moment, we assumed that we have the full set of first-order concepts and second-order themes as the basis for developing aggregate dimensions and building a data structure.
## Chapter 2

Table 2.1. Illustrative quotations of first-order concepts

<table>
<thead>
<tr>
<th>Second-order theme</th>
<th>First-order Concept</th>
<th>Illustrative quotations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Challenging situations</strong></td>
<td>Lack of wage employment</td>
<td>&quot;Persistent unemployment has been embedded in our community over decades, but what is worrying me is the escalation of the problem since a moment with the most recent rises touching young people including those with good education and qualifications.&quot;</td>
</tr>
<tr>
<td></td>
<td>Too many steps for following to get a small employment</td>
<td>&quot;The way to get a paid job is extremely long and strewn with obstacles&quot;</td>
</tr>
<tr>
<td></td>
<td>Getting school grades do not guarantee employment</td>
<td>&quot;Experiencing unemployment as a person with a low level of education is somehow understandable, but what shocked me is systematic generalization of the problem of the unemployment to all of categories including those with appropriate qualifications. This trend challenges our belief in education as a means to succeed.&quot;</td>
</tr>
<tr>
<td></td>
<td>High level of competition due to the high number of postulants</td>
<td>&quot;Employers are overwhelming with the number of applicants. They prefer to work with experienced staff.&quot;</td>
</tr>
<tr>
<td><strong>Disruptive events</strong></td>
<td>Lower level of trust in state to provide solution to employment challenge</td>
<td>&quot;We don't believe anymore in the capacity the government to fix the problem of youth unemployment.&quot;</td>
</tr>
<tr>
<td></td>
<td>Overfishing and pollution of water</td>
<td>&quot;... as I told you, I have been doing fishing business for more than the past ten years and we were already facing the decrease in... Five years ago, the situation became a little worse, the... decreased dramatically and since a couple of years I not sure fisher men could survive on this revenue of this activity alone.&quot;</td>
</tr>
<tr>
<td></td>
<td>Fishing activity is threatened by exhaustion of fish stocks</td>
<td>&quot;Now, haul out the fish of the water becomes a hardship activity, the river is almost empty (of fish).&quot;</td>
</tr>
<tr>
<td><strong>Needs fulfilment</strong></td>
<td>Fulfilling family needs</td>
<td>&quot;First, I need money to meet my personal needs and then I may utilize it for my emergency need and invest in other businesses.&quot;</td>
</tr>
<tr>
<td></td>
<td>To becoming financially independent</td>
<td>&quot;I don't want o depend on others to survive ....&quot;</td>
</tr>
<tr>
<td></td>
<td>Seeing life improvement of other persons engage in the business</td>
<td>&quot;Now, because of people here in this community are running their business, the family life is improving, With the money I made from selling my vegetables, I made improvements to my house and my children are attending a private school which is more expensive than the public one.&quot;</td>
</tr>
</tbody>
</table>
### Illustrative quotations of first-order concepts

<table>
<thead>
<tr>
<th>Second-order theme</th>
<th>First-order Concept</th>
<th>Illustrative quotations</th>
</tr>
</thead>
</table>
| Structuring               | Moving away from fishing to something new                                             | "If I didn’t start the vegetable production business, it would be very difficult for me to survive. As I told you, I did only the fishing jobs at my native. Then, once we faced the problem of the decrease in the river’s productivity, I was thinking what to do to live."
|                            | Intensifying vegetables production to compensate or replace fishing activities         | "I did not know what is called profit as I was only doing business from hand to mouth (fishing) and was not even seeing some money for the future. now, beside the fulfillment of my family needs, I am able to save money and my business is growing. The situation seems more secured.”
| Human Agency               | Changing the actual situation based on own initiative                                 | "I preferred to do a business on my own instead of ... You see, when you are fishing, the quality and quantity of harvestable products from fishing activities are constrained by many factors such as the quantity of what is left after the harvesting by the communities at the upstream of the river, the techniques they used, be that you cannot control on the other hand, when you have the chance to be working for a company, the pay is regular but it remains extremely low and could barely cover every day need.”
|                            | Being in control in business activities                                               | "Since I started a business in growing and selling vegetables, I can predict ideally or in the worst of cases what my revenue could be.”
|                            | Taking responsibility to reduce income uncertainty                                    | "So far, it seems to me that this business is blooming and we are fare to cover the actual demand. This is a really great opportunity for us to own lot of money.”
| Accumulating and           | Networking with multiples actors                                                      | "I think it good to look at community networks for business partners, the people who are known for their experience, their knowledge.”
| leveraging social capital  | Learning from successful entrepreneurs                                                 | "What we need is to go fast and fast. I believe that successful examples of producers offer a means to go fast and far.”
| Relational transaction     | Getting information, financial and labour force supports from friends and family members | "As a beginner, people you may count on to help you (financially, emotionally...) are your close relatives and friends ... Later on, there is opportunity to extend to other partners such as buyers, suppliers....”
|                            | Using local and regional market channels to sell products                              | "We sell our products either for local buyers or those from neighbouring countries ...”
|                            | Oral based agreements                                                                 | "No, we do not sign a written contract with our customers. Once we agree, we simply move on to production ...”
|                            | Bargaining the price and the payment conditions                                        | "... price, amount, and payment methods are bargained face to face ...”
|                            | Privileging important and committed buyers                                             | "Strong bonds with customers facilitate the transaction and can sometimes provide referral opportunities for us.”
## Chapter 2

<table>
<thead>
<tr>
<th>Second-order theme</th>
<th>First-order Concept</th>
<th>Illustrative quotations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Imitative activities</strong></td>
<td>Relying on reinvestment and financial support from buyers</td>
<td>&quot;... Because we face the difficulty in accessing financial support, the most common we have is to reinvest part of our benefit and time to time you can get a pre-financing or small credit from our customers.&quot;</td>
</tr>
<tr>
<td></td>
<td>Following tendency in production in the community</td>
<td>&quot;We used to sate with what other producers are growing.&quot;</td>
</tr>
<tr>
<td></td>
<td>Growing well known crops</td>
<td>&quot;The technical itinerary of conventional crops production is more accessible for us.&quot;</td>
</tr>
<tr>
<td></td>
<td>Focusing more on production perspective</td>
<td>&quot;A product with high quality is easy to be sold. I therefore concentrate my energy in producing good products.&quot;</td>
</tr>
<tr>
<td><strong>Innovative activities</strong></td>
<td>Learn from other farmers</td>
<td>&quot;The best way to learn quickly is through friends, parents or neighbour who have experience in this business.&quot;</td>
</tr>
<tr>
<td></td>
<td>Growing a variety of vegetables</td>
<td>&quot;... Never put all your eggs in one basket (meaning to depend for your success on a single product). Even though a product can be grown and sold easily, you need to engage in at least two to four other products in your business.&quot;</td>
</tr>
<tr>
<td></td>
<td>Using pre-existing and new markets</td>
<td>&quot;We have customers for some specific products and in a revolving basis we grow those crops. We also look at new clients how want a particular product.&quot;</td>
</tr>
</tbody>
</table>
2.6 Results

In this section, the results of the five focus group discussions are first presented. Next, we describe the evidence we derived from interviews and what can be inferred from the activities of entrepreneurs. Figure 2.2 depicts the aggregate dimensions, the second order themes and the first-order concepts that are found to be salient for the entrepreneurial process at the BoP. These will be described in more details in the following six sections. Finally, we summarize the process of entrepreneurship by discussing the results in light of the literature.

Although the participants’ opinions of the focus group discussions largely overlap, the final summary distinguished two categories of producers. In the analysis, we, therefore, combined the results of three FGDs on the one hand and the findings of two other FGDs on the other hand.

![Figure 2.2. Data structure: First-order codes, second order themes and aggregate dimensions based on FGDs and interviews](image-url)
2.6.1 Overcoming Challenges

A wide range of participants are engaged in the vegetable production businesses because something challenging was occurring to them which triggered the process, and so our first category was “overcoming challenges”. The participants of the FGDs often referred to two types of challenges: (1) Challenging situations and (2) disruptive events. Regarding challenging situations, participants in three FGDs emphasized that the concrete situations and problems they were facing have pushed them to find interpretations and give meanings to such challenges. The willingness to cope with difficult situations was portrayed as leading to the decision to engage in action.

Many challenging situations they emphasized involved low-income, difficulty in getting wage employment or in fulfilling basic needs. Participants reported feeling being at risk in their livelihood. While our participants range from illiterate farmers to well-educated ones with little access to formal employment, the one thing that unites them is first the need to survive. They did feel that they had to look for income-generating opportunities (that can meet their immediate and long-term needs) to escape from the current situation, since poverty is generalized in the community and therefore close relatives are facing the same situations. In an attempt to find a solution to the difficult situation, the vegetable businesses were established. For example, here is a story that one of our participants told us about how he got involved in vegetable farming.

“I started farming for myself on a small portion of land after working for six months as an employee of another farmer here in this village. Before starting to grow these vegetables, it was hard for me and my wife and a 3-year old boy to have a regular two hot meals per day with the revenue I got from fishing and farm land. Although it was very challenging at the beginning, after the first harvest, my economic situation changed ... I thank God, because nowadays, I am extending my farm, I have a small car and my children are going to private school where the quality of education is high.”

For this participant, the vegetable farm business (agropreneurship) is a path that can help him to escape grinding poverty and a daily struggle to survive. Moreover, this business is seen as a means to improve food security for families, to be able to afford to send children to school and to be a relatively stable income generator. In another account, one participant told us about how his experience getting wage employment after graduation was a challenge.
“It was very difficult for my parents to maintain our [relatively] large family. We were in financial crisis and a very vulnerable situation, I had a degree but no job, no money and no position. The only thing I had is the burden and responsibility as the eldest son of my father. Since my parents have spent a lot of money on my education, I have now the responsibility for succession for taking care of my sibling and also my parents. Since two years (after being engaged in vegetable production) ... the poverty situation for me and my family is changing. We are eating better foods. There are more chances for my children to go further in their education, because I hope to expand my farm and build some things bigger. This will also create jobs in our community.”

In contrast the participants of the two other FGDs often referred to disruptive events as the starting point of their entrepreneurial journey. They reported being involved in situations where they became aware of negative changes in their traditional business activities. They have experienced an unpredictability in the generating of income from fishing that represent their traditional activity. As they mentioned, fishing was one of the most important income-generating activities of the community settled between the sea and the lake of Mono since the seventeenth century. The passing of knowledge and skills from one generation to another within the community had led to specialization in this specific economic. This system of exchange worked until the activity was threatened by exhaustion of fish stocks due to overfishing and pollution, and natural phenomena such as erosion, siltation and floods with many consequences. First, the livelihoods and income generation of the fishing community members have been impaired. Generating substantial revenue from this traditional activity become uncertain because the volume of fish caught also became uncertain. Second, anticipating, predicting or understanding the production system is more difficult since the ecosystem has been disrupted. These uncertainties in understanding the system and the volume of production contribute to pushing individuals to engage in vegetable production that they assume to be more under their control. The following quote captures the general idea of the pressure actors are under by relying on traditional economic activities that seem not to work anymore.

“We found that the fishing activity we get from our parents becomes more problematic and we don’t know what to do to solve the problem of productivity that becomes lower and lower every day .... Sometimes, we can spend hours on the river without any success. On the other hand, the day you are a lucky man, you can get just a basket [equivalent to 5 to 6 Kg] ... Therefore, you must be on the river every day with the hope to get a minimum for the next day.”

In general, the focus group participants perceived that challenging situations and disruptive events spurred the emergence of entrepreneurship in vegetable production. It is on this point that the
entrepreneurial project of farmers finds its origin within the community: the belief that the difficult situation of a precarious livelihood and the disruptive events that occurred in the traditional activity can be overcome by setting up vegetable farm businesses. Without these situations or events, entrepreneurial action would not be manifested within a part of the community. Therefore, and as we show in Figure 2.2, we identify the challenging situations, and external disruptive events as initiating forces in the entrepreneurship process. This leads to our first proposition.

Proposition 1. Entrepreneurial processes at the Base of the Pyramid emerge primarily from external factors such as challenging circumstances and disruptive events.

2.6.2 Entrepreneurial opportunity development

Without any prior motivation, the agropreneurial process is triggered as the result of external events or circumstances. The individual does not actively seek to become an agropreneur. The trigger, therefore, happens as a direct result of a change or disruption considered as significant by the individual. The individual jumps head first into action without really being prepared. Agropreneurship suddenly appears as the best solution.

Since the majority of farmers jump into the vegetable business, they were not prepared for such endeavours. The later interviews reveal that respondents tend to learn by doing, which creates a gradual change in their orientation and attitude. They have achieved this by relying on perceived successful agropreneurs because a formal system to provide such knowledge does not exist. For respondents, the learning phase is fundamental for their financial sustainability and business performance. Many agropreneurs appeared to believe that their know-how is an important step to avoid failure. They tended to see this practice of learning as critical for their own success. Hence we make the following proposition.

Proposition 2. The entrepreneurial opportunity exploitation results from opportunities developed by learning.
2.6.3 Personal motivations

An agropreneur who starts, organizes, manages, and assumes responsibility for a vegetable farm business, faces an additional personal challenge compared with many other individuals within the community who prefer to stay in fishing activities or being an employee working for someone else. Some people accept the risks that go with owning a vegetable farm business, but also benefit directly from the potential success of the business. They tend to increase the business over time. By investigating what it is about certain people that may alter their willingness to take on the risk and bear the uncertainty related to opportunities, the characteristic that appeared recurrently in the respondents’ statements is the question of needs fulfilment, and an increase in generated income. In an attempt to guarantee and improve their livelihood and income, a vegetable farm business is established and its size is increasing over the time. This is often the top motivational factor mentioned for keeping up the growth of the business. The interviews showed differences between individuals’ motivations, especially with regards to the intensity of the expressed motivation. Some declared a strong motivation whereas others perceived it mainly as a self-employment opportunity among others. It becomes clear that while the commitment to entrepreneurial action is driven by challenging situations or disruptive events, the entrepreneur’s motivation strengthens the sub-process of opportunity creation.

Proposition 3. Agropreneurs’ motivations of self-fulfilment, income generation and wealth creation strengthen the relationship between opportunity development and challenging situations.

2.6.4 Economic value prioritized

When informants describe the reasons why they have engaged in the new business of vegetables, some had reported that the challenging events and chronic poverty situations push them to go beyond an immediate time frame toward a greater return through thriving business activities. This group of farmers seems to give priority to solutions which involved efforts to effect radical change from survival to sustainable business activities in response to important and chronic problems. These actions involved actors in a more difficult action and taking responsibility even when faced with limited information, resources and skills needed to achieve a business development. According to participants, moving away from old and traditional businesses and finding other activities that could generate
income in a sustainable way appear as one of the best options and agropreneurship offers this opportunity. Many agropreneurs believe that it is crucial to reduce the reliance on meagre and aleatory revenue derived from fishing by launching new business activities where outcomes may be known to some extent. They prefer to establish a more governable business activity with a more or less predictable outcome by growing vegetables.

We learn from our participants’ accounts that farmers acknowledge the problem of the exhaustion of fish stocks and the causes of this, but that the government is unwilling to solve the problem. The approach they found is to shift to something new in order to come to terms with challenges of income generation. The uncertainty of the old business to generate income was a strong enough motive to push them toward entrepreneurial activities. Moreover, there is also an emphasis on the need to reduce this uncertainty of income generated by engaging in agropreneurship in which they can control the input supply more easily. The following quote exemplifies this:

“... It’s true that I perceived the necessity to shift to agriculture businesses, but what I do not want is to fall in the same tenuousness situation in the next. That’s why I prefer to grow vegetables instead of maize or cassava [extensive farming system]. So that, ... I can control the water supply and grow a year round instead of waiting for the wet season before continuing my business activities.”

Apparently, vegetable farmers are able to acquire a level of self-perceived control of their life by structuring uncertainty through an entrepreneurial activity with growth potential. They are contrasting vegetable production as providing high-value products and as being more under their control compared to traditional extensive farming in which they rely more on the wet seasons. Another reported example of structuring uncertainty of income included the following:

“... From my experience in vegetable production, I do not envy any more those who are working in public administration... I can also save a lot of money after covering my actual needs and use them during my old age (when I will not be capable to farm) ... I can say that there is a future in this business.”

In contrast, we also found evidence of low levels of willingness to structure uncertainty reportedly decreasing actors’ motivation to respond to challenging events and situations. In these instances, participants told us of individuals feeling a general sense that someone else (government authority, local authorities, or a family member) had the responsibility to help in reducing the
challenges they are facing. They tend to be more emotional-focused in coping with challenging situations:

“Although the government has the power and means to help us to solve the problems of low productivity we are facing in fishing activities, there are no ‘visible’ actions for many years ..., our local leaders pretending not to be concerned with the problem.”

This finding struck us as a phenomenon similar to fatalism and resignation that are often the norm in an extremely poor context where responsibility to act is inhibited by repeated failures experienced by people, decreasing the likelihood of any particular member taking action. Our findings suggest, to the extent that smallholder entrepreneurs in poverty settings can overcome the fatalism or resignation surrounding them, that they will be motivated to respond effectively to challenging situations and events. This leads to our fourth proposition:

**Proposition 4.** The willingness to structure income uncertainty moderates the relationship between challenging circumstances/disruptive events and opportunity development.

### 2.6.5 Personal attributes

The findings regarding the reported importance of benefits perceived by agropreneurs, particularly the need to structure uncertainty, made us curious about why actors specifically reported the need to structure uncertainty. As noted above, there were several other actors facing a challenging situation and also engaging in the new vegetable business but who did not respond to structuring uncertainty to a large extent. So, we asked a number of questions about what makes some actors feel more need to structure uncertainty in order to engage in entrepreneurial action, while others less so? We probed our participants for information about how they construed the situation. Several factors were reported as heightening actors’ perceptions in structuring uncertainty. A path emerged in this first stage of our model (figure 2.2) that was reported as bolstering the need to structure uncertainty: human agency. By agency we refer to the capacity of persons to transform existing states of affairs, the ability to respond to events outside of one’s immediate sphere of influence to produce a desired effect (Onyx and Bullen, 2000). A belief reported by informants that change is possible based on their own initiative, acquiring a semblance of control of their business activities, everyday circumstances and decisions in matters relating to the environment they live in, is a potential psychological marker.
Proposition 5. Human agency moderates the relationship between opportunity development and opportunity exploitation. The stronger the ability of an entrepreneur to respond to challenging situations or events in developing entrepreneurial opportunities, the more likely and easier the exploitation of entrepreneurial opportunities.

2.6.7 Strategic Behaviour

If the commitment to entrepreneurial action and opportunity development drive the first steps of the entrepreneurial process, the shift to opportunity exploitation is also accomplished through the ability of the agropreneur to mobilise production and transaction resources. In order to realise their potential, agropreneurs rely on their capabilities to connect with the surrounding context. They created networks involving multiple actors such as family members, friends and local vegetable producers who play a role at the beginning of the entrepreneurship process. Engagement of friends and family members helped the potential agropreneur to get access to a minimum of support. This support includes financial resources and production inputs such as land, equipment and seeds. The workforce is mainly provided by family members as the agropreneurs at the beginning lack financial resources to rent labour.

The social embeddedness of vegetable farmers is also crucial for the agropreneurs at production and transaction levels. It could be noted that potential agropreneurs were not able to use their previous business models in the vegetable production business. According to farmers, vegetable production is an intensive system due to the high use of external inputs (fertilizer, pesticide, improved varieties) and production is labour-intensive. When an individual engages in the vegetable production business, they had to learn and collaborate with other more experienced producers. The informants also indicate how collaboration facilitates transaction between agropreneurs and buyers by relying on a referral pattern. For instance, in order to reach important and trustworthy buyers, an agropreneur needs to refer to other producers within the community. Peers also provide referral opportunities because an agropreneur may be referred to potential buyers for the quality and the safety of his products. This referral pattern is also critical to accumulate and leverage financial and non-financial resources needed by an agropreneur within and outside the community. As a result, networking ability means the ability of identifying potential resource providers. Hence we introduce the following proposition.

Proposition 6. The ability of the entrepreneur to network moderates the move from opportunity development to opportunity exploitation. The stronger the ability to identify and create supportive networks, the more likely the exploitation of entrepreneurial opportunities.
Proposition 6. The ability of the entrepreneur to network moderates the move from opportunity development to opportunity exploitation. The stronger the ability to identify and create supportive networks, the more likely the exploitation of entrepreneurial opportunities.

2.7 Discussion

We began this paper by highlighting the importance of entrepreneurship as a solution to alleviate poverty in the BoP settings. Having chosen to focus on local entrepreneurship, we asked: how does entrepreneurial action emerge and evolve in these contexts? How does the entrepreneurial process unfold and what are the main stages of this process? Interaction effects of these factors sometimes caused the entrepreneurial opportunity development, which in turn led to exploitation sub-process. Figure 2.2 presents a schematic diagram of the process model that we elaborated from our findings. In the discussion that follows, we elaborate on the insights depicted in Figure 2.2, by offering a process-relational reading of the phenomenon, and explain how they can add to the literature on entrepreneurship. Briefly, our findings highlight the importance of understanding two aspects of entrepreneurship; (1) how entrepreneurial action emerges from multidimensional perspectives and also in relationship to circumstances and experiences, and (2) how can relational framing helps to arrive at a more comprehensive, realistic and context-specific understanding of the stages of entrepreneurial process.

Our analysis of the business activities of micro entrepreneurs in vegetable production in Benin showed that entrepreneurial action often emerges at the crossroads between the individual motivations, the challenging situations (socioeconomic and institutional structures), disruptive events and the need to structure uncertainties related experiences (see Table 2.1). In the first stage of the entrepreneurial process, the relationship between challenging situations and entrepreneurial opportunity creation (proposition 1) is contingent upon individuals factors: personal motivations and the willingness for structuring uncertainty. In the second stage of the process, the adaptation to resource scarcity through networking strategy and the development of personal attributes enable agropreneurs to pursue opportunities developed and thus create value for themselves and for their community.
As noted earlier, the literature suggested that the emergence of entrepreneurship is a multidimensional process. Acknowledging the relevance of contextual factors, a human action in general and entrepreneurial action in particular results from the combination of motivation and cognition (Locke, 2000; Shane et al., 2003). Furthermore, Anderson et al. (2012) placed a range of emphasis on multidimensional aspects of entrepreneurial action and highlighted the recursive dynamic of relationships between dimensions. What we found, however, is that entrepreneurial action emerges not only from the interplay between self and contexts, but also as a response to uncertainties faced by the agent.

Our theoretical rationale and empirical findings help to break new theoretical ground for the emergence of entrepreneurial actions by identifying the path to entrepreneurial actions as challenging circumstances and disruptive events that may have threatened the way of life of individuals. Further, individuals’ decisions about the commitment to entrepreneurial opportunity development can be altered by their motivations and their willingness for structuring uncertainties they face. This finding can be connected to Weick (1995) discussion about the transformation of uncertainty into structured uncertainty by moving from a situation where there are too few alternatives available to one in which uncertainty.
there are many. The idea is that entrepreneurship in dynamic and uncertain environments can be enacted as a way to expand on the range of options available to individuals for a better life.

However, our findings call into question the implicit assumption in intentions (Ajzen, 1991), human motivations, entrepreneurial opportunity, and cognition as the only factors that influence the entrepreneurial process (e.g., Shane et al, 2003). Moreover, the existence of a market, information about the market and information processing ability as boundary conditions of entrepreneurial action in opportunity discovery theory (Casson, 1982; Shane, 2000) are also questionable. Although vegetable producers are well positioned to engage in the process as they are motivated by livelihood, there are new factors that emerge. Specifically, challenging situations and disruptive events appear as a determinant exogenous dynamic trigger of the entrepreneurial process. Consequently, they shift without an intention to start a business or a particular information gathering process. In addition, our results also call into question the rationality of the entrepreneurial actors in the ways human behaviour is preceded by the individual's thought, or goals. In the situation described above, entrepreneurial action emerged through the creation of vegetable farms as a new business. This is a process which is in contrast with the utilitarian ends–means schema of mainstream entrepreneurship models of a systematic implementation of a rationally thought-out plan where the outcome is given, the selection between means to achieve the outcome by starting with the ends, analysing expected return, doing competitive analysis and controlling the future. The case of agropreneurs tells a different story, one where the resources are scarce, the poverty is chronic, and the stream of ongoing action is interrupted or disrupted by new events that reoriented behaviours. The emergence of vegetable businesses in our study is more problem-focused, as a response to the uncertainty faced by producers. This fits in closely with what Keynes (Keynes, 1936) termed “a spontaneous urge to action rather than inaction, and not as the outcome of a weighted average of quantitative benefits multiplied by quantitative probabilities”. Becoming an entrepreneur is potentially a way to structure the uncertainty faced. Relatively high levels of uncertainty caused by challenging situations and disruptive events cause the need to structure this uncertainty that ultimately may lead individuals from impoverished regions to do whatever they can to move up in the socioeconomic ladder. In the rejection of the utilitarian ends–means schema the emergence of an entrepreneurial action pattern is similar to that of effectuation proposed by Sarasvathy (2001, 2009). However, it goes further by highlighting the interplay of individuals, contexts and circumstances. In addition, it shares similarities with the creative
action implicit in the pragmatism perspective (Joas, 1996), and the creative process view (Hjorth et al., 2008; Steyaert, 2007).

As that figure depicts, the relationship between the opportunities developed and its exploitation is in turn moderated by strategic behaviour factors (i.e., networking ability) and personal attributes factors (i.e., human agency), such that individuals are more likely to exploit entrepreneurial opportunities when they are able to accumulate and leverage social capital to develop personal attributes that facilitates the exploitation of entrepreneurial opportunities.

The relationship between the commitment to the entrepreneurial action and the exploitation of opportunities is contingent upon personal attributes and the ability to accumulate and leveraging social capital and develop personal attributes. This micro-process is located at the agent level and firmly connected to the structural mechanisms discussed above. In fact, a number of struggles take place in the field just after the commitment to entrepreneurial action. Rather than an exhaustive list of the types of struggles that occur, the two struggles we identified are related to capital accumulation (e.g., materiel assets, ties with other actors, skills) and strategies such as networking to overcome practical challenges the entrepreneurs face. The value of capitals needed as well as the strategies deployed are only conferred within the specific context where these entrepreneurs are embedded. They are relationally generated. Thus, the process entails building relationally different types of capitals and strategies throughout the process. This is related to what (Tatli and Özbilgin, 2012) have referred to as capital relationality. Capitals that entrepreneurial agents draw on are irrevocably relational. This rationality borne out of the manning conferment of, in relation the characteristics of the context. In addition, networking activity has formed a significant part of their business strategy construction.

A previous contextualisation perspective which presents entrepreneurship as a rooted phenomenon that can be understood with reference to context and contingency (Mason and Harvey, 2012), has contributed to emphasize this critical role of context and have promoted post-positivism paradigmatic approaches. Our case discussed above has provided short but insights into the complexities of the entrepreneurial process in poverty settings. A deeper and richer understanding of business activities of this community could be procured by a perception of how the different domains of social activity influence interactions within and between each other. Thus, the relational perspective could be relevant to conduct and examine the transition to entrepreneurship in poverty settings dominated by the ethnic solidarity, the individual determinants that can be conducive to achieving
economic goals, and the host of socioeconomic conditions and institutional factors. This approach frames and studies social phenomena as dynamically evolving, gaining meaning and shape from complex relationships in its situated context generated through multilevel interdependence, such as micro-level, meso-level and macro-level or individual agent, structures, and actions (Kyriakidou and Êzbilgin, 2006). The self and others are not separable (Buber 1981), but are, rather, dynamic and coevolving in ways that need to be accounted for in our inquiry. Therefore, it may make more sense to look at the messy complexity of the entrepreneurship phenomenon in poverty settings with a coherent framework that synthesizes both macro and micro perspectives. It may have epistemological benefits that overcome the duality between agents and structural conditions generated by the paradigmatic division between positivism and social constructionism.

2.8 Conclusion and implications

This study offers an exploration of the complexity of an entrepreneurial process in poverty settings at the BoP. Based on our empirical findings and on a comparison and contrast with the existing theories, we provided the trigger path and a three-stage model of the entrepreneurship process at the BoP. Beyond the description of the specific characteristics of each stage, the roles of the process enablers are depicted as affecting the way the process unfolds. Moreover, a set of propositions has been developed positing the basis for future empirical investigations. The contributions of our article to the ongoing debate on entrepreneurship in developing and emerging economies are fourfold. First, in answering the call for a deeper look into the dynamics by which people in poverty settings develop their business model, we provided a comprehensive framework, as a further step in the process of boundary-setting and awareness-raising meant to stimulate future research.

Second, our study opens up the realm and reach of the entrepreneurship process at the BoP and unpacks each phase of the process and intervening dimensions, highlighting which characteristics are most relevant in determining the shift from one phase to the other. The six categories discovered by us were overcoming challenges, personal motivations, economic value prioritised, personal attributes, strategic behaviour and entrepreneurial opportunity development. Although we certainly do not claim these are the only six dimensions of the process, they provide a reasonable starting point for future work on the topic. Our empirical findings help break new theoretical ground for the emergence of entrepreneurial action. One interesting theoretical puzzle that emerges is that motivations and opportunity identification ability are not sufficient to explain entrepreneurship at the
base of the pyramid. Challenging situations and disruptive events are the principal triggers of entrepreneurial action. Another interesting theoretical puzzle that emerges from the dynamics of the process concerns personal attributes; human agency is viewed as a potential psychological response for structuring uncertainty. This point may also help explain why entrepreneurship with growth potential or the so-called “transformative entrepreneurs” (Bruton et al., 2015a) are so rare at the BoP level. Indeed, human agency appears to be rare in poverty settings as evidenced by the growing literature on economic development, highlighting how fatalism and resignation are often the norm (Wood et al., 2015).

Finally, our findings have implication for the growing number of scholars who are interested in entrepreneurship. Our case has provided novel insights into the hidden complexities of the entrepreneurial process by approaching the reality with no a priori theoretical agenda. Instead, by analysing the process as a dynamic, evolving phenomenon which gains meaning and shape from complex relationships in its situated context generated through the interdependence of agency, structures, and entrepreneurial actions. Our findings suggest the need for a more relational framing of entrepreneurship research in context, such as poverty settings in developing countries.

2.9 Study limitation and perspectives for further research

As with other qualitative research our study has nonetheless suffered from the usual limitations associated with case study research, which trades statistical significance for richness, accuracy and insight into observed processes (Langley, 1999). Our insights into the dynamics of entrepreneurship at the BoP raise the question of generalizability, of the extent to which our findings apply to other industries or sectors. It is hard to exclude the possibility that specific characteristics of our research setting might have affected the evolution of the observed process. Since our ultimate goal was to elaborate a theory of the entrepreneurship process in poverty settings, more research is needed in order to confirm whether the ideas we have introduced hold when subjected to quantitative inquiry, and whether they are generalizable to other sectors and settings. We cannot infer from our reports the actual causal process unfolding without a variance in our dependent variables. Therefore, building on the theoretical model we developed in this article, future research might test empirically each one of the relationships highlighted in the study, with the aim of generalizing our results.
Chapter 2

58

base of the pyramid. Challenging situations and disruptive events are the principal triggers of entrepreneurial action. Another interesting theoretical puzzle that emerges from the dynamics of the process concerns personal attributes; human agency is viewed as a potential psychological response for structuring uncertainty. This point may also help explain why entrepreneurship with growth potential or the so-called “transformative entrepreneurs” (Bruton et al., 2015a) are so rare at the BoP level. Indeed, human agency appears to be rare in poverty settings as evidenced by the growing literature on economic development, highlighting how fatalism and resignation are often the norm (Wood et al., 2015).

Finally, our findings have implication for the growing number of scholars who are interested in entrepreneurship. Our case has provided novel insights into the hidden complexities of the entrepreneurial process by approaching the reality with no a priori theoretical agenda. Instead, by analysing the process as a dynamic, evolving phenomenon which gains meaning and shape from complex relationships in its situated context generated through the interdependence of agency, structures, and entrepreneurial actions. Our findings suggest the need for a more relational framing of entrepreneurship research in context, such as poverty settings in developing countries.

2.9 Study limitation and perspectives for further research

As with other qualitative research our study has nonetheless suffered from the usual limitations associated with case study research, which trades statistical significance for richness, accuracy and insight into observed processes (Langley, 1999). Our insights into the dynamics of entrepreneurship at the BoP raise the question of generalizability, of the extent to which our findings apply to other industries or sectors. It is hard to exclude the possibility that specific characteristics of our research setting might have affected the evolution of the observed process. Since our ultimate goal was to elaborate a theory of the entrepreneurship process in poverty settings, more research is needed in order to confirm whether the ideas we have introduced hold when subjected to quantitative inquiry, and whether they are generalizable to other sectors and settings. We cannot infer from our reports the actual causal process unfolding without a variance in our dependent variables. Therefore, building on the theoretical model we developed in this article, future research might test empirically each one of the relationships highlighted in the study, with the aim of generalizing our results.

3.1 Introduction

Entrepreneurship is widely seen as an important driver of structural economic transformation and economic development (Acs et al., 2009; Holcombe, 1998; Naudé, 2013). Literature advocating the link between entrepreneurship and development has mainly examined this relationship at the country or regional level. Recent discussions on entrepreneurship impacts have complemented and expanded the scope to emerging and developing economies where poverty remains a critical issue (Bruton et al., 2015b; Bruton et al., 2013a; Si et al., 2015; Tobias et al., 2013). Small and micro enterprises are major sources of employment and income (Li and Rama, 2015; Mead and Liedholm, 1998), especially for the poorest members of society (Gallardo and Raufflet, 2014; Temkin, 2009). The challenge for developing countries is to encourage and enhance entrepreneurship, particularly in its most productive or transformative forms (Baumol et al., 2007; Bruton et al., 2015b). Such entrepreneurial ventures with growth potential, offer opportunities for poor individuals and their communities to substantially improve their life situations.

Transformative ventures are the opposite of the so-called "subsistence entrepreneurship" that provides little potential to significantly improve the entrepreneur's life as well as his family's and that of his local community (Bruton et al., 2015b). Subsistence ventures are usually small lifestyle-businesses, rarely hire employees from outside the immediate family, and generally do not experience much growth (Fischer, 2013; Liedholm, 2002; Mead and Liedholm, 1998).

The need for continued research in the transformative small business sector in developing economies is necessary in view of the growing interest from governmental and developmental policymakers and the increasing number of small business startups. Understanding entrepreneurial strategic actions and the organizational processes that entrepreneurs use to survive and prosper in such contexts of multiple barriers and challenges (i.e. informality, uncertainty and limited resources), is especially critical to our global understanding of how endogenous entrepreneurship could be enhanced. In the context of small and medium enterprises operating in developed economies, entrepreneurial orientation (henceforth EO) is suggested to help firms survive in a hostile environment (Covin and Slevin, 1989), and this conceptual perspective provides a useful framework for enterprises' strategic decision making and capabilities (Lumpkin and Dess, 2001). Strategic management and entrepreneurship literature shows that firms with a strong EO achieve greater market access and higher profitability than firms with less or no EO (Green et al., 2008; Rauch et al., 2009). Consequently, a number of studies have typically focused on the causal relationships between EO and firm performance (Lechner and Gudmundsson, 2014; Lindsay et al., 2014).
3.1 Introduction

Entrepreneurship is widely seen as an important driver of structural economic transformation and economic development (Acs et al., 2009; Holcombe, 1998; Naudé, 2013). Literature advocating the link between entrepreneurship and development has mainly examined this relationship at the country or regional level. Recent discussions on entrepreneurship impacts have complemented and expanded the scope to emerging and developing economies where poverty remains a critical issue (Bruton et al., 2015b; Bruton et al., 2013a; Si et al., 2015; Tobias et al., 2013). Small and micro enterprises are major sources of employment and income (Li and Rama, 2015; Mead and Liedholm, 1998), especially for the poorest members of society (Gallardo and Raufflet, 2014; Temkin, 2009). The challenge for developing countries is to encourage and enhance entrepreneurship, particularly in its most productive or transformative forms (Baumol et al., 2007; Bruton et al., 2015b). Such entrepreneurial ventures with growth potential, offer opportunities for poor individuals and their communities to substantially improve their life situations. Transformative ventures are the opposite of the so-called “subsistence entrepreneurship” that provides little potential to significantly improve the entrepreneur’s life as well as his family’s and that of his local community (Bruton et al., 2015b). Subsistence ventures are usually small lifestyle-businesses, rarely hire employees from outside the immediate family, and generally do not experience much growth (Fischer, 2013; Liedholm, 2002; Mead and Liedholm, 1998).

The need for continued research in the transformative small business sector in developing economies is necessary in view of the growing interest from governmental and developmental policy makers and the increasing number of small business startups. Understanding entrepreneurial strategic actions and the organizational processes that entrepreneurs use to survive and prosper in such contexts of multiple barriers and challenges (i.e. informality, uncertainty and limited resources), is especially critical to our global understanding of how endogenous entrepreneurship could be enhanced. In the context of small and medium enterprises operating in developed economies, entrepreneurial orientation (henceforth EO) is suggested to help firms survive in a hostile environment (Covin and Slevin, 1989), and this conceptual perspective provides a useful framework for enterprises’ strategic decision making and capabilities (Lumpkin and Dess, 2001). Strategic management and entrepreneurship literature shows that firms with a strong EO achieve greater market access and higher profitability than firms with less or no EO (Green et al., 2008; Rauch et al., 2009). Consequently, a number of studies have typically focused on the causal relationships between EO and firm performance (Lechner and Gudmundsson, 2014; Lindsay et
al., 2014; Liu et al., 2011; Lumpkin and Dess, 2001; Messersmith and Wales, 2013; Moreno and Casillas, 2008; Rauch et al., 2009; Rodríguez-Gutiérrez et al., 2015; Tang and Tang, 2012; Verhees et al., 2011; Wiklund and Shepherd, 2005). In addition, some studies have included internal factors of business (Engelen et al., 2014; Wiklund and Shepherd, 2005) and its environmental dimensions (Shirokova et al., 2016; Wiklund and Shepherd, 2005; Adomako et al., 2016c) to explore the strength of EO-performance relationship. Moreover, the EO framework has also been readily applied to small firms in the formal sector in developing countries (e.g., Ginting, 2014; Gunawan et al., 2016; Lim and Envick, 2013; Ndubisi and Agarwal, 2014; Uddin et al., 2014), including Sub-Saharan Africa (e.g., Boso et al., 2013a; Boso et al., 2013b; Ibeh, 2003; Okpara, 2009; Alarape, 2013). These studies rely on the classical entrepreneurial orientation conceptualization and measurement (Covin and Slevin, 1989; Lumpkin and Dess, 1996; Miller, 1983), and have contributed to the generalization of the EO concept to new contexts. Despite the attention devoted to EO, research into EO of small businesses in the informal sector in developing countries has been scarce. This is surprising in view of the fact that the informal economy accounts for about half of the gross domestic product in these economies, and contributes to poverty reduction (World-Bank, 2013).

Our review of literature on the contextualization of EO with regard to specific contexts (Miller, 2011), revealed that it stops short of developing a full understanding of the attributes of entrepreneurial orientation of micro and small enterprises operating in informal economies in developing countries. In particular, we know little about the nature and the manifestation of this phenomenon in these contexts. Without such an understanding, researchers and practitioners may be capturing the phenomenon only partially, or measuring the wrong factors in their attempts to identify entrepreneurial-oriented firms (Eijdenberg, 2016). Last but not least, policy makers may encourage the wrong behaviours when designing programmes to strengthen entrepreneurial practice of small businesses operating within the informal economy.

Given the importance of small businesses operating in the informal sector, and due to the dramatic differences between the informal economy and the formal economy in the Western context, where the EO concept has been originally developed, it is important to ask the question: how does EO of small businesses manifest itself in the informal economy? Thus, the aim of this study is to explore the patterns of small firms’ EO within the informal economy in a developing country. A closer examination can advance our understanding of how EO is typically exhibited by small firms, which will, in turn, help to inform both entrepreneurs and communities how these enterprises can be managed more successfully.
By empirically examining the manifestation of EO, this study brings new insights to entrepreneurship research by showing that five behavioural patterns of entrepreneurial orientation are relevant to understand the manifestation of EO of smallholder entrepreneurs. Specifically, the findings show that three traditional dimensions - innovativeness, proactiveness and risk-taking - are present, thus these results do not seem to challenge the theoretical underpinnings of the construct. The two new context-specific dimensions that emerge are resource-acquisition capability and collaborative orientation.

The first section will focus on the theorization of the informal economy setting, its role in, and key challenges for small businesses operating within this context. The second section then introduces the logic of EO and its heterogeneous pervasiveness across differing contexts. In the third section, the research methods used to assess the manifestation of EO of small businesses operating in the informal economy are then described, including the research settings, data collection and analysis, followed by the presentation of the empirical results. Finally, a discussion of results, conclusions, and some academic and managerial implications are presented.

### 3.2 Informal economy and institutional and socioeconomic constraints to small business in the informal sector in developing countries

The informal economy comprises economic activities that operate outside of formal institutional boundaries, within informal institutional boundaries (Webb et al., 2009). Two competing and contrasting theoretical perspectives have been developed to explain the rationale behind the involvement of businesses in the informal economy. On the one hand, the neo-liberal perspective views the informal economy as a rational response of economic actors to the overregulation of the formal sector, so that they can avoid tax and thereby reduce costs and increase profits (De Soto, 1989). On the other hand, the political-economic perspective posits that the informal economy is a result of the voids left by formal institutions (Williams and Youssef, 2015), in such a way that the informal economy complements or compensates the formal economy (Zoogah et al., 2015). This is common in various sectors in developing countries, including agriculture where the majority of small agribusinesses such as smallholder producers and processors operate within the informal sector, but do connect with small and medium enterprises (SMEs) in the formal economy. The SMEs have the capability to buy from and collect important volumes of products from the informal sector and resell them at domestic and global marketplaces (Arnould, 2001). Despite the complementarity depiction revealed between the two sectors and the positive role of the informal economy in developing countries, small businesses operating in the
informal sector receive little or poor advice and support when starting up, and they are constrained by a host of factors.

While entrepreneurs all over the world have to deal with adversity, those in the informal sector in developing economies face dramatically different challenges and adverse environments (Koveos, 2015; Speakman and Rysova, 2015). An obvious peculiarity is that of adverse business institutional environments. Adversity measures the extent to which the environment is unfavourable to the purposes of the firm (Zahra, 1993), due to exogenous determinants such as precarious industry settings, intense competition, harsh and overwhelming business climates, or lack of opportunities (Covin and Slevin, 1989). This point of business environment adversity emerges very clearly from the literature on entrepreneurship in the informal sector within developing and emerging economies. Too much environment adversity is stressful, risky for economic activities, and often slows business growth because of heightened uncertainty. Little or non-adverse environments provide a safe setting for business operations due to their overall level of munificence and other factors such as wealth in investment or marketing opportunities (Covin and Slevin, 1989). Studies reveal a host of factors and challenges that constrain small businesses (see DeBerry-Spence and Elliot, 2012).

Another major point concerns the scarcity of resources. The socio-economic conditions of entrepreneurs within the informal economy are characterized by less status and power, and significant resource scarcity. Resource scarcity refers to limited access to key production factors such as technology, information, capital and knowledge (DeBerry-Spence, 2010; Fafchamps, 1994; Fafchamps, 1997; Henriques and Herr, 2007), as well as infrastructures (e.g., roads, communication networks and transportation systems) that facilitate access to the market (London et al., 2010). For example, the ability to obtain financial capital is highly dependent upon access to affordable credit. Generally, entrepreneurs have minimal savings and thus must incur debt in order to obtain necessary resources. Formal institutions providing credits, such as commercial banks rarely make loans to micro and small entrepreneurs who lack collateral. Microfinance institutions that do make loans, often charge prohibitively high interest rates (Fernando, 2006; Mitra, 2009; Agbeko et al., 2016). To cope with financial resource scarcity challenges, some entrepreneurs rely on informal institutions such as loan sharks: moneylenders who tend to dominate the local debt market and often charge even more exorbitant interest rates (Karmakar, 2000). To cope with resource scarcity, some entrepreneurs are able to ingeniously exploit traditional knowledge and technologies (Dia, 1996; Agbeko et al., 2017), for the growth of entrepreneurial businesses (Zoogah, 2012). Other small-scale entrepreneurs rely on network ties and experimental learning to facilitate the development and transformation of their enterprises (Dia, 1996; Rivera-Santos et al., 2015).
Together, institutional settings and socio-economic conditions of the informal sector in developing countries create highly adverse business environments for entrepreneurship. Strategic orientation to succeed in such contexts needs to be resilient to extreme resource scarcity, poor to non-existent infrastructures, unreliable support services and formal institutional voids (Cuervo-Cazurra and Genc, 2011).

Consequently, past research and theorizing suggest that small businesses in informal economies will use resource-coping strategies and informal institutions to facilitate, organize, and transact when incentivized to do so. What is less known, however, is which entrepreneurial behaviours have been developed over time by these small businesses that allow them to survive and grow. How might such contexts affect their attitudes and behaviours? The constraints and challenges they face might shape the attributes of EO of micro and small enterprises differently from what is known from entrepreneurship in a Western context.

Furthermore, there is at least one institutional rationale supporting EO as an impediment to firm survival and growth. Institutional theory emphasizes the influences of formal institutions which regulate and incentivize transactions, investments, and exchanges. These institutions facilitate productive activities through uncertainty reduction (Peng et al., 2009), and consequently shape entrepreneurial strategic behaviour and processes (Scott, 1995). However, small businesses in the informal economy are characterized by formal institutional voids, and the institutions therein are weak, or broken (Khanna and Palepu, 1997; Puffer et al., 2010; Mair and Marti, 2009). As a result, in these situations, entrepreneurs are forced to rely to a greater extent on informal institutions (Webb et al., 2015; Zoogah et al., 2015). Consequently, all of these observations suggest that small firms in the informal economy might make strategic decisions, and act in ways that are substantially different from those in the Western context, including those operating within the formal sector in developing countries.

### 3.3 Rationale of entrepreneurial orientation

Viewed literally, EO refers to the methods, practices and decision-making styles that business owners use to act entrepreneurially (Tang et al., 2008), such as the exploration and exploitation of new market opportunities (Lumpkin and Dess, 1996; Matsuno et al., 2002). EO was developed as a construct to capture the essence of entrepreneurship. It has largely been discussed in the context of larger organizations that are experiencing expansion (McDonald et al., 2015). The construct took its point of departure from the fact that organizations are forced to move away from mass production efficiencies, hierarchical organizations and bureaucratic structures that provide central...
control over activities, to a more flexible management and opportunity-seeking behaviour. Organizations facing difficult environments related to rapid change and competition are challenged to manage disruption created by phenomena such as the interdependent global economy, higher economic volatility, hyper-competition, and knowledge-based competition (Daft and Lewin, 1993).

Research on EO has focused on its manifestation through three primary underlying dimensions: innovativeness, risk-taking, and proactiveness (Miller, 1983). Innovativeness is the predisposition reflected in the tendency to engage in creativity and experimentation through the introduction of new products/services, as well as technological leadership in new product development (Lumpkin and Dess, 1996). Risk-taking involves the willingness to take bold actions by venturing into the unknown, borrowing heavily, and/or committing significant resources to ventures in uncertain environments (Lumpkin and Dess, 1996; Wiklund and Shepherd, 2003). Proactiveness is an opportunity-seeking, forward-looking perspective and a tendency to anticipate future needs and to pursue change ahead of the competition (Lumpkin and Dess, 1996). Building on Miller’s (1983) ideas, Covin and Slevin (1989, 1991) posited the existence of a continuum used to plot a firm’s strategic behavioural proclivities. The continuum ranges from more conservative to more entrepreneurial, with the entrepreneurial end of the spectrum evidenced by innovativeness, proactiveness, and risk-taking. Therefore, in firms confronting challenges and intense competitive environments, entrepreneurial orientation may represent an important strategy-making process. Later, Lumpkin and Dess (1996) introduced competitive aggressiveness and autonomy as additional dimensions of the EO construct. Competitive aggressiveness is the intensity of a firm’s effort to outperform rivals and is characterized by a strong offensive posture or aggressive responses to competition. Autonomy refers to independent actions undertaken by entrepreneurial leaders or teams directed at bringing about a new venture and seeing it come to fruition. In general, entrepreneurial-oriented firms outperformed their counterparts (Covin and Lumpkin, 2011; Wiklund and Shepherd, 2003). In sum, authors have captured the manifestation of EO as a firm’s strategic decision-oriented entrepreneurial behaviour in dynamic and competitive environments, particularly in the developed economies of the United States and Western Europe.

As knowledge regarding EO has expanded, researchers have drawn attention to developing and emerging economies (Bruton et al., 2008). Notwithstanding the importance of EO for firms in developed economies, there appears to be a lack of clarity as to whether the innovativeness, proactiveness and risk-taking attitudes and behaviours are actually relevant to the growth of small businesses in other contexts. Without questioning the theoretical underpinnings of EO,
construct has been readily applied to micro, small and medium sized firms in developing economies including those operating in the informal sector.

However, as has already been noted, it is not at all clear whether EO as conceptualized in firms in mature economies, is also applicable in other economic and institutional contexts. Although the environment is dynamic and competitive, several other key factors impinge on small business survival and growth in developing countries. These include, but are not limited to, extreme resource scarcity and the lack of adequate physical and institutional infrastructures. These challenges may interplay with the dynamic and competitive environments to shape the attitude and behaviour of entrepreneurs. Thus, firms may deliberately restrict or extend their exhibition of EO attitudes and behaviours to certain areas. Hence, the manifestation of EO within such a context of multiple stressors (competitive environments, resource scarcity and inadequate infrastructures) is not well established and raises the question about how EO should be conceptualized in these particular contexts.

### 3.4 Heterogeneous pervasiveness and the need to contextualize the understanding of the manifestation of EO

An emerging strand in entrepreneurship research recognizes that scholars failed to theoretically and empirically account for context when exploring entrepreneurial processes, including EO (Fletcher, 2006; Steyaert, 2011; Zahra et al., 2014). According to Welter (2011), context refers to the “circumstances, conditions, situations, or environments that are external to the respective phenomenon, and enable or constrain it” and can be viewed through multiple dimensions. It has been suggested that entrepreneurial actions have to be analysed in their specific contexts to grasp their full meaning (Holmquist, 2003). Entrepreneurial behaviours cannot be fully described and explored without knowing the extrinsic context that exists independent of the individual. For instance, Welter and Smallbone (2011) argued that the institutional context influences the nature and level of entrepreneurial behaviour. Hence, EO may be manifested differently across different contexts.

The pervasiveness of EO reflects the manner and degree to which EO attitudes and behaviours are manifested within or through specific contexts of organization, industry/sector or institutional setting. At the organizational level, the heterogeneous pervasiveness of the EO has been addressed through hierarchical and functional levels (Wales et al., 2011). Similarly, Morris (2011) believes that the manifestation of EO within the profit and non-profit sectors should be different given the difference in their motivations, processes and outcomes. However, to date,
Researchers have implicitly assumed that EO spreads homogeneously through institutional contexts, providing little or no justification to support this assumption (Eijdenberg, 2016; Le Roux and Bengesi, 2014; Lindsay et al., 2014; Roxas and Chadee, 2012). This paper questions this basic supposition and claims that EO may in fact be exhibited in different manners with respect to the composition of its dimensions as well as to the level of their exhibition across institutional settings. We believe that closer examination of the behavioural patterns of small businesses within specific institutional contexts can advance our understanding of how EO is typically manifested, which will, in turn, help to inform entrepreneurs how entrepreneurship can be managed more successfully.

In this study, our claim is based on the observation that entrepreneurs can manifest differing attitudes and behaviours, and thus the manifestation of EO may not be homogenous across institutional contexts for a number of reasons. First, differences in the manifestation of EO may occur as a result of small businesses facing differing environmental and market dilemmas. As Covin (1989) suggested, different degrees of environmental hostility may require varying degrees of EO to achieve performance. For example, in a technologically dynamic and competitive environment characterized by shortening product and business model lifecycles, the future profit from existing products or services is uncertain, and entrepreneurs need to constantly seek out new opportunities and to innovate. However, within an extreme resource-constrained and uncertain institutional environment, the priority may be to first increase the resilience of the firm, and then build a competitive advantage. Hence, the standard dimensions of proactiveness, innovativeness and risk-taking may become less relevant than behaviours such as adaptation to resource scarcity, through bricolage (Baker and Nelson, 2005) or effectuation process (Sarasvathy, 2001). Furthermore, while simultaneous changes are possible, the principle of strategic choice, which defines where a firm finds its unique strategic advantage for the future, suggests that entrepreneurs are rational decision makers who attempt to choose courses of action that solve their priority problems with minimum resources (Koerg, 1987). Entrepreneurial attitudes and the behaviours of small firms in the informal sector may be more oriented towards the tendency to build business activities that are resilient to extreme resource scarcity, poor to non-existent infrastructure, and unreliable formal institutional supports (Cuervo-Cazurra and Genc, 2011).

Similar evidence has been presented from other contexts, suggesting that different types of organization may prompt different manifestations of EO. Morris (2011), based on the difference in motivations, processes and outcomes between for-profits and non-profit organizations, suggested that their EO should be manifested differently. From a strategic
orientation perspective, differences in the manifestation of EO may also occur as a result of a firm’s choice to target global versus domestic levels (Gupta and Govindarajan, 1991; Birkinshaw et al., 1998), and organic growth versus growth through acquisitions (McKelvie et al., 2006). Furthermore, the heterogeneous pervasiveness of EO within an organization has been explored from hierarchical, functional and temporal perspectives. Across the functional and hierarchical levels, workers and subunits have differing goals, roles and responsibilities, and are thus differing in EO manifestation. For instance, the R&D function is more oriented toward creativity and new product development, whereas the accounting function is more concerned about the compliance with regulations. Due to the difference in goals these subunits of business may manifest EO in different ways.

In summary, EO as an expression of a means through which organizations change, adapt to survive and grow may vary substantially across institutional contexts. Developing an understanding of behavioural patterns that capture the manifestation of EO of small firms in the informal sector in developing economies, could be a valuable tool to extend the EO knowledge base.

3.5 Methods

In order to accomplish the endogenous understanding of the manifestation of small firms’ EO in the informal sector, this study took a pragmatic realist approach within this research. This approach is based on the epistemological principles of pragmatism that suggests that ‘truth’ is not about getting a correct ‘representation of reality in cognition’ but is an expression of an ‘an increase of the power to act in relation to an environment’ (Joas, 1993: , p. 21). The ontological aspects of this approach are based on the assumption that there are realities which exist in the social world, independently of our volition (Berger et al., 2002), the way they are observed or interpreted. The pragmatic realism stance is advocated as a research approach when dealing with how the organizational and managerial world works within the context in which it came into being, and it allows research to focus on relevant practical explanations (Watson, 2011). This approach can enhance our understanding of the manifestation of EO of small firms in specific settings, relying on experiences, views and understanding of the key actors (Patton, 2002), which become part of the entrepreneurship story itself (Anderson and Starnawska, 2008; Steyaert, 2005).

An inductive, qualitative research design has been adopted to collect and analyse data from small agribusinesses operating in fresh vegetables production. The study used this design because the pattern of behaviour that the micro and small enterprises use to survive and prosper in a context
of multiple barriers and challenges in the informal sector in developing countries, is not yet well known and therefore difficult to study using a deductive or prospective design (Worline 2004a). In addition, it is widely acknowledged that new research topics often benefit from a qualitative foundation (Edmondson and McManus 2007). We adopted a case study approach by following recommendations of Eisenhardt (1989) and Yin (1994). According to the works of these authors, case studies should be undertaken in situations where the researcher is interested in studying how processes unfold. This approach is indicated when it is necessary to carry out an in-depth probe (Noor, 2008), such as to understand, describe, and explain behaviours and attitudes, as is the case in this research.

3.5.1 Research setting

The selection of cases to study should be driven by the aim of better understanding the phenomena of interest (Buchanan, 2012). Since the potential of entrepreneurship in the agricultural sector in general, and high value crops (fruits and vegetables) industry in particular (Valdés and Foster, 2010; Wiggins et al., 2010) for poverty alleviation is widely acknowledged, an entrepreneurship case operating in this context has been sought out. The case selected for this study comprises the entrepreneurial businesses operating in fresh vegetables production in Benin, a developing country in Sub-Sahara Africa (SSA). At the time of data collection, vegetable production businesses (agropreneurship) were in operation in rural and peri-urban areas, representing a context where poverty is highest in developing countries. Agriculture is the most important economic sector, with approximately 60% of the workforce gaining their revenue from this industry (Zoogah et al., 2015; Eisenhardt, 1989). The sector contributes up to 80% to export revenues (Word Bank, 2014; SCRP-Benin, 2011). However, the socioeconomic condition of farmers in rural areas is characterized by a low status and a significant resource scarcity, and the rural area is dominated by the informal economy (Zoogah et al., 2015).

Secondly, high value crops such as vegetable crop production contributes to poverty reduction by providing employment and wages to labourers (Weinberger and Lumpkin, 2007). The production is more labour intensive than the production of staple crops, because it often requires more weeding, phytosanitary treatment and irrigation than the production of cereal crops. Moreover, labour demands also occur in the labour-intensive postharvest activities such as transportation, packing, sorting, grading, and cleaning. The additional labour requirements in the vegetable production business are met through hired labour, benefitting small farmers and landless
labourers (Maertens, 2006; Weinberger and Lumpkin, 2005). Greater employment opportunities result in higher incomes for poor people. The relative profitability and high value-added factors of vegetables as compared to cereals has been shown, and results in a substantial increase in producers’ revenue (Joshi et al., 2004). In addition, vegetable production has a comparative advantage under conditions of agricultural land scarcity and labour abundance, the typical situation in many countries in Sub-Saharan Africa. The market integration of vegetable producers has been shown to be higher than that of staple crop producers (Weinberger and Lumpkin, 2007).

Finally, due to the complexity that characterizes vegetable farms, the decision-making and entrepreneurial behaviour of their owner-managers is critical for the success of their business activities. Particularly, the need to use large amounts of inputs; the requirement of managerial skills; the requirements needed to integrate international and lucrative markets regardless of producer location (Swinnen and Maertens, 2007); the necessity for vertical coordination to deliver perishable products to markets or processing facilities in time; the need for access to future markets to withstand the price and supply fluctuations; and requirements for quality labour (Carter et al., 1995), should be entrepreneurially managed. Thus, vegetable production-basedagribusiness in SSA provides a particularly interesting context in which to study the entrepreneurial orientation of micro and small firms in informal sector in developing countries.

### 3.5.2 Data collection

Consistent with a typical case analysis, this study explored the entrepreneurial behaviours of agropreneurs using a qualitative technique to enhance the validity and reliability of findings (Noor, 2008). Data was collected through semi-structures interviews with vegetable farm owner-managers. This technique was used because of its flexibility to approach different respondents differently while still investigating the same topic (Noor, 2008). The criteria for the selection of a farm-firm were that (1) ownership and management is under the responsibility of an individual farmer, (2) the farmer is holding at least one vegetable farm and (3) the production is market-oriented.

Besides some guiding questions such as “What do you mean with that?” or “Could you please explain that a little more in detail?”, functional questions were used, based on established research guidelines for entrepreneurial behaviours of small firms (Nordqvist and Melin, 2010). Relevant questions included: “what are the main constraints to challenges of vegetables production business?”; “How do you cope with these constraints and challenges?”; “Do you generally take new initiatives/strategic actions ahead of your competitors?”; “Describe your farm business and your personal capabilities to take new actions (initiatives)”; “Do you generally invest when the
outcome is highly uncertain, or do you prefer to invest when less resource is at stake and you know the result fairly well?" and "Do you generally take actions that directly and aggressively challenge the positions held by your competitors?"

A stratified sampling was applied in order to identify and include the different strata of small businesses involved in vegetables production and their relative sizes. The final sample size consisted of 17 cases of small firms. The interviews were conducted with owner-managers throughout southern Benin. This region is known as a vegetable production area in Benin, and a large part of the country’s workforce gain their revenue from this activity (Word Bank, 2014; SCRP-Benin, 2011). The area offers products for various target markets: local markets and neighbouring countries (Nigeria, Togo and Ghana). Interviews were conducted from April to June 2015, and the average length of the interviews was approximately 40 minutes, following the guidelines of methodological research on how to pursue meaningful and valid qualitative research (Crouch and McKenzie, 2006).

### 3.5.3 Data analysis

Following the procedures described in Gioia et al. (2013), our data analysis consisted of four main phases. First, narrative case summaries were written for each interviewee to capture their overall experiences, practices, and perspectives. Each summary included information about the interviewee’s experiences of daily actions taken in their work, attitudes and understandings of entrepreneurship phenomenon. The summaries, together with the notes of observation, helped us to develop a clear understanding of the experiences and perspectives of the participants (Easterby-Smith et al., 2008).

Next, interview transcripts were analysed to develop themes. The goal of this second phase of our analysis was to code anything in the text of the interviews pertaining to the business of producers. The themes were generated by examining the content of the responses. While the summaries helped us to ground those actions reported in the experiences of individuals, the coding process allowed us to identify patterns that were representative of the entire set of interview data (Lee et al., 1999).

Ultimately, themes were organized into more abstract behavioural patterns, resulting in five umbrella categories of behaviour. The behavioural patterns thus generated were compared to previous dimensions of entrepreneurial orientation in the literature (Eisenhardt, 1989).
3.6 Results

As a first step, the interviews were analysed to capture which activities the interviewees associate most with actions taken during the entrepreneurial process. Throughout the answers and narratives of the respondents, the study attempted to identify the behavioural patterns that allowed agropreneurs to accomplish actions related to various entrepreneurial endeavours. An overview of the behavioural patterns that were identified across the discussion with agropreneurs, is provided in Table 3.1.

**Behavioural pattern 1: switching back and forth between production-oriented tasks and exploration activities**

The interviews provided an opportunity to capture actions in which entrepreneurs are frequently engaged. One key pattern that emerged from the interviews was the switching between two core tasks: production-oriented tasks and exploration activities. A category of farmers emphasized the importance of switching back and forth between production-oriented and other activities. One respondent told us:

“... you need to keep one eye outside the farmyard to know how things are on around”.

Some other activities mentioned related to investigating the current situation on production about a particular crop in other regions. Keeping an eye on the weather forecast is mentioned to be important as well.

Contrary, a second category emphasized the importance of allocating more time to production. For the producers in this category, the focus was on the development of high quality food production, the introduction of new varieties of crops, the use of good materials (including raw materials, inputs and equipment), the expansion of farm size, the diversification of the businesses, and the improvement of products. These represent critical activities of a good agropreneur. As mentioned by a respondent:

“... it is fantastic to know that the quality of your products [the absence of parasites attacks, lifetime of good physical appearance...], is attractive and the commercialization becomes easy as well as getting information from your customers.”

Taking a closer look at this example, allows us to find that the ambidextrous behaviour identified in the first category, is also present in the second category, but with an unequal dexterity.
### Table 3.1. Behavioural patterns

<table>
<thead>
<tr>
<th>Examples of coded actions</th>
<th>Behavioural patterns</th>
</tr>
</thead>
<tbody>
<tr>
<td>. Focus on high quality food production</td>
<td>Behavioural pattern 1: Switching back and forth</td>
</tr>
<tr>
<td>. Using good raw materials, inputs and equipment</td>
<td>between production-oriented tasks and others activities (BP1)</td>
</tr>
<tr>
<td>. Expand farm size</td>
<td></td>
</tr>
<tr>
<td>. Switch between production tasks and explorative actions</td>
<td></td>
</tr>
<tr>
<td>. Act quickly</td>
<td></td>
</tr>
<tr>
<td>. Engage in new projects</td>
<td>Behavioural pattern 2: Avoid becoming trapped in businesses that may turn uncompetitive (BP2)</td>
</tr>
<tr>
<td>. Adopt new technologies which ease the production and increase the productivity</td>
<td></td>
</tr>
<tr>
<td>. Enter new markets</td>
<td>Behavioural pattern 3: Engaging in resource acquisition (BP3)</td>
</tr>
<tr>
<td>. Need to progress and develop</td>
<td></td>
</tr>
<tr>
<td>. Involved in experimentation</td>
<td></td>
</tr>
<tr>
<td>. Engage in technical know-how and learning</td>
<td>Behavioural pattern 4: Building and maintaining collaborative relationships that support business activities (BP4)</td>
</tr>
<tr>
<td>. Search of financial resources</td>
<td></td>
</tr>
<tr>
<td>. Involvement in market information exploration</td>
<td></td>
</tr>
<tr>
<td>. Get market knowledge from customers</td>
<td></td>
</tr>
<tr>
<td>. Build and nurture relationships with other producers and producers organizations</td>
<td>Behavioural pattern 5: Involving in moderate risk-taking (BP5)</td>
</tr>
<tr>
<td>. Maintain close contacts with government advisory services and NGOs.</td>
<td></td>
</tr>
<tr>
<td>. Establish long-term relations with customers and intermediaries in the markets</td>
<td></td>
</tr>
<tr>
<td>. Take a moderated risk that make the business resilient to failure</td>
<td></td>
</tr>
<tr>
<td>. Ensure the longevity of the business</td>
<td></td>
</tr>
</tbody>
</table>
Behavioural pattern 2: avoid becoming trapped in a business (a type of crop production) that may turn uncompetitive

Results show that agropreneurs tend to be stuck in successful businesses. Unsurprisingly, for all of them investing in successful business is the default mode of action. Nevertheless, the majority of agropreneurs in our sample (about two-thirds) saw the benefit of stepping back and not getting stuck in the successful businesses, but engage in new projects. Accordingly, their actions included experimenting with new technologies to facilitate the production and increase the productivity, engaging in new products, and finding new markets. Ten of the 17 owner-managers emphasized the need to progress, ‘innovate’ and develop, which is often considered an advantage for big farms, as most interviewees point out:

“I think one of the strengths of large scale farms is that they are the first to try new technologies introduced here. And they are always the leaders in the production as well as on the markets.”

This study found out that agropreneurs tend to allocate a small part of a cultivated plot for experimenting with new crops to create new revenue streams. However, although agropreneurs seem to be open to trying new technologies, the portion of land allocated for this form of experimentation is relatively negligible. In general, the experimental site does not exceed 2 plots of 2*5 meters each per farmer.

Behavioural pattern 3: engaging in resource acquisition

Agropreneurs engaged in activities which sustained resource acquisition. When starting the farm businesses, some highlighted the few resources they owned at the beginning. All the agropreneurs interviewed mentioned the need to engage in resource acquisition processes. Resources frequently mentioned by respondents are related to technical know-how, financial resource, and market information. Actions are related to the development and nurturing of relationships with friends, colleagues, and potential micro-financing institutions.

“Yes, I agree with you that the unemployed local residents are potential labour we may use to expand the production. However, very often, we lack the cash required to pay for extra labour until we sell our crops. Other than that, we also need technical knowledge for new crops and access to high-quality inputs. Even when inputs are accessible, the price is not affordable for us ... Actually, it means that if you want to grow in your business, you have to be able to find solutions to these various needs.”
Chapter 3

While the engagement in resource acquisition is categorized as behavioural pattern 3, this behaviour appeared as a precondition of the others previously mentioned. Systematically, producers highlighted this endeavour from the initial state of their agropreneurial process, even if they have been consistently continuing it. For instance, for the initial “know-how” acquisition, some respondents indicated working as labour in vegetable farm-firms for some time, others mentioned learning from close relatives. At the growth stage of the entrepreneurial process, some agropreneurs planned to visit a colleague to search for new information.

**Behavioural pattern 4: building and maintaining collaborative relationships that support business activities**

Another key pattern that emerged from respondents’ answers was collaborative behaviour with a wide range of actors, including customers, suppliers, producers’ organizations, technical advisory organizations and even competitors. Often, agropreneurs meet or communicate rapidly with these actors which, over time, become part of their networks. For example, the relationship with governmental advisory services and NGOs favours information acquisition on latest technologies (technical lines of production, inputs, and equipment). Frequent contact with suppliers give them the opportunity to be informed about the availability of new inputs on the market. Calls to potential buyers help to provide information on market trends or the characteristics of products they may be willing to buy in the coming months. Distribution is done through long-term relations with customers or intermediaries in the markets. In this relationship, farmers assure supply and customers assure price. A producer expresses the context and specific behaviour of how business in their community is done as follows:

“In our village producers know each other and they also know the main buyers. So, in such a situation, I think we have to cooperate. Of course, there is a kind of hidden competition, but if we do not try to work together and give each other appropriate support in order to achieve high levels of productivity, and further develop collaboration to commercialize our products, then we will lose our bargaining power and ultimately, the business will shut down.”

**Behavioural pattern 5: involvement in moderate risk-taking**

From the respondents’ answers, it was found that the risk-taking is controversially used. Several producers (eleven of the agropreneurs interviewed) stress the need to take “moderate” risk to remain competitive, while others are rather risk-averse to ensure the longevity of the business.
According to the former group, a moderate risk refers to taking risks which would not be harmful to the sustainability of the firm in case of failure.

The latter group emphasized the need to be sure before engaging in new actions. This is because the businesses are still in a precarious balance. Those farmers tend to be risk averse and are often unwilling to adopt new practices if the outcomes are uncertain or the benefits take time to manifest themselves. The following interview excerpts highlight their thoughts:

“This year the extension agents introduced us to a new seed for tomatoes with high productivity. Good! They may be better informed than us about the production itinerary to reach high productivity, but sometimes the technologies introduced fail ... and when you experience a such failure two or three times successively, it is hard to recover and bounce back.”

Another producer added:

“We function by reinvesting, and when it takes too long to get the money back you are investing, it will be hard or impossible to sustain in our business.”

High risk aversion among these producers makes sense when considered in the economic context of informality. Most smallholder producers lack access to risk mitigation mechanisms, such as crop insurance and hedging. This pattern is partially an expansion of the behavioural pattern 2 described above where the experimenting field is a bare minimum of land available for the production. This implies that the resources engaged are also minimized.

3.7 Discussion

The goal of this chapter was to understand the EO of micro and small firms operating at the base of the economic pyramid in developing countries. Empirically, this study examined the attributes of entrepreneurial behaviour developed by small-scale firms to run and manage businesses effectively in the agricultural sector in Benin. The findings of this study reveal five main behavioural patterns with some commonalities with the conceptualization of EO in developed economies as well as context-specific components of the concept. These findings imply that some components used for EO conceptualization in developed economies are not relevant in the informal sector and therefore cannot be easily transferred to such contexts. Others components have relevance, but some adaption may be required. Finally, context-specific dimensions need to be added for a better conceptualization of the construct. In the following, we show the key findings (Table 3.1). Based on Lumpkin & Dess and (1996) and Miller, (1983), we further elucidate how entrepreneurial behaviours describe entrepreneurship in vegetable businesses by comparing and contrasting seemingly related or opposed dimensions. This discussion of findings highlights the main
dimensions of behavioural patterns of entrepreneurial behaviour of smallholder entrepreneurs in the informal sector, as well as the proactive, resource-acquisition orientation, collaborative behaviour and moderate risk-taking behaviours of farm firms.

**Switching back and forth between production-oriented tasks and other tasks, versus proactiveness EO dimension**

At an empirical level of discrete enactments performed by agropreneurs, we could identify whether an action is a production task (exploitation) or rather explorative in nature. Thus, following March (1991), the findings allowed us to distinguish explorative and exploitative behaviour. At a broad level, by extending the timeframe beyond a single action of production or pure productivism-orientation, it becomes evident that agropreneurs engage in a multiplicity of actions and activities including opportunity exploration. This represents a proactive behaviour, by taking initiative in improving current circumstances of business or creating new ones by challenging the status quo. Thus, the advantage of being able to switch back and forth between production tasks and other activities is partially in congruence with the findings of small-business literature. There, proactiveness as an opportunity-seeking behaviour, a forward-looking perspective (Lumpkin and Dess, 1996) or a first mover’s behaviour has been found to be beneficial for firms in formal sectors in developing countries (Boso et al., 2013a) and for microenterprises operating in emerging economies (Lindsay et al., 2014). Several farm-owner managers indicate that, being dynamic in both production and explorative activities is an important trait for an agropreneur, as the numerous positive evaluations in Table 1 for the behavioural pattern 1 show. In these impoverished contexts, people who engage in entrepreneurial activities manifest significant initiative and proactiveness in moving quickly in various activities. Only a few statements describe the lack of actions of agropreneurs to be reactive due to the high focus on production activities as is the case in traditional farming systems.

Through a proactive behaviour, agropreneurs are able to respond to changes in their environment (weather, markets, technology, “competition” with other farmers from neighbouring countries or remote regions of the country), and sustainability. It can be noted from anecdotal examples the interviewees gave us that some farmers seem to be quite successful in developing as ‘proactive agropreneurs’ as conceptualized above, for instance through an alertness on events.
**Avoiding becoming trapped in successful businesses versus Innovativeness EO dimension**

Several farmers indicate that being innovative is an important trait for a farm enterprise, as the numerous activity evaluations in Table 1 for progress, development, new markets entry, adoption of technologies, show. Constant progress and modernization within the business as well as the improvement in the number of businesses are important factors. This result is in line with prior micro- and small-business research, which considers innovativeness to be important in businesses (Le Roux and Bengesi, 2014). Farm owner-managers have strong incentives to act in the long-term interests of their enterprises. This state of affairs makes it more likely that they support innovation as a source of growth, wealth creation and also as a survival mechanism over time. However, since innovation occurs primarily through new combinations of resources, ideas and technologies, these smallholder agropreneurs typically have too few resources to truly invest in innovative products given the primitive economic conditions that confront them. Furthermore, the outcome of innovation processes is always uncertain, and these processes compete for stallholders’ scarce resources. This situation is likely to heighten the paradoxes facing agropreneurs.

**Navigating the tension between hostile environments and looking forward: Context-specific dimensions**

As mentioned previously, these results suggest that agropreneurs have to seek resources and develop collaborative ability in order to survive and prosper, given apparent resource constraints and the lack of formal institutional support. These results differ from those of Lumpkin and Dess (1996), who found that besides innovativeness and risk-taking behaviour, competitive aggressiveness and a tendency toward autonomous actions are the other important dimensions of entrepreneurial orientation.

Competitive aggressiveness which captures the idea of beating competitors to the punch, as suggested by Miller (1983), as well as autonomy which refers to the independent action of an individual or a team in bringing forth an idea and carrying it through to completion, seem to be problematic in poverty settings where non-economic resources such as social capital offer best chance of survival for micro and small firms. For example, most vegetable farm owner-managers consider resource acquisition as critical for their businesses. They have too few resources to invest, and the search for resources becomes a main activity in running the businesses. Agropreneurial behaviour related to intense focus on resource acquisition therefore makes sense to scaling up their businesses. By recognizing the existence of business environments that are highly resource constrained, entrepreneurship bricolage theory points to the need to acquire standard resources, or to make do in applying combinations of resources on hand (Baker and Nelson, 2005).
agropreneurs were typically juggling different roles in order to cope with the challenges they face, and remain open to newness and proactivity. They could pursue resource-mobilization roles by engaging in technical know-how and learning, in searches of financial resources and in market information acquisition.

There are, of course, occasions when competition is of relevance, as for example in the case of product-quality improvement. In this case, competition seems to be an important notion, but is usually not perceived in an aggressive manner. Often, competitors also know each other well or even have friendly connections or are organized in producers’ associations, but work individually on their farms. As a member of an association, the producer is a member of an organization that provides needed assistance through monitoring, group selling, assisting in finding markets, and social assistance. Furthermore, it is easy for the producer to access extension services and financial support through the association. Here, within the informal sector, farmers manage their enterprises within the institutional logics of embeddedness and networking which differ from the institutional logics of market and hierarchy underlying the entrepreneurial endeavour in mature economies (Pascucci, 2010), where aggressive competition is the modus operandi. The collaboration appears to be important to the entrepreneurial process of producers, because the resources needed for businesses and the transactions are basically passed to them through the relationships.

**Involvement in moderate risk-taking**

Taking risk is one of the terms diverging the opinions of the interviewees. The agropreneurs often estimate risk-taking to be necessary. In general, they referred to the common adage “nothing ventured, nothing gained”. Nevertheless, they emphasized the need to be moderate in risk-taking actions. There was no real evidence of great risks in the responses from agropreneurs, even though many of them believe that vegetable farming is riskier than traditional farming because of the perishable nature of products and the lack of storage facilities. These micro entrepreneurs run their businesses within an environment characterized by unsupportive policy and regulatory formal institutions, instable and unpredictable climate conditions, and asymmetric information in the market place. In addition, they operate with negligible financial resources. Both environmental conditions and resource scarcity situations lead to some being reserved and consequently risk averse, while others are willing to take moderate risks.

This dualistic thinking is also represented in the literature, which emphasizes that in a perceived high-risk business environment, few people are willing to attempt new initiatives, and those who are willing to do so are likely to generate more profit, enhancing the firm’s growth, if
their businesses succeed (Tang and Murphy, 2012). However, there are reasons to believe that risk avoidance is stronger in entrepreneurship in the informal sector because the owner-manager tends to have most wealth invested in the small firm, and thus bears the full financial burden of failed investments which might threaten the livelihood of the family. Consequently, necessary but risky strategic decisions and actions are postponed due to concerns about the safety of the family livelihood and the resilience of the enterprise – a capacity of the business to bounce back from unexpected, stressful and adverse situations (Beck et al., 2008; Armenakis and Harris, 2009). The situation is not the same in other types of firms in mature economies, where the motivation is more concerned with wealth creation, and the resource issue is not so challenging (Bruton et al., 2015b).

3.8 Conclusion

This qualitative research assessed the behavioural patterns, presenting descriptions of the general entrepreneurial practices. The verbatim comments of the owner-managers interviewed were used for a better understanding of the manifestation of the entrepreneurial orientation of small businesses in the informal sector in a developing economy context. Not only does the study provide support for the appropriateness of the three primary underlying dimensions, it does so in a way that illuminates and provides keen insights into actual small business practices as well as the rationale behind these practices – an approach which has hitherto been overlooked by researchers interested in EO of firms in this specific context.

Entrepreneurial orientation as conceptualized by Millers emphasizes the tendency to engage in creativity, experimentation (i.e. innovative), a forward-looking perspective to anticipate the future (i.e. be proactive), and the willingness to take bold action (i.e. taking the risk). Taking this into account, it was found that, to a large degree, some key behavioural patterns of small businesses in agriculture in Benin match these dimensions. From this point of view, the findings do not question the theoretical underpinnings of the EO construct. However, they shed light on the necessity to extend the dimensions of the construct to two new areas, although it is acknowledged that further ongoing studies are needed to support this assertion. Small firms specifically exhibit two critical additional behavioural patterns in the areas of resource building and collaboration. It is therefore useful to refine the definition of EO when talking about small business in the informal sector in developing economies, and extend the context-specific dimensions in order to be able to grasp the reality of the manifestation of EO within this context.

The findings presented here can make a positive contribution to the debate about the manifestation of EO in the small business sector. It can be concluded that the core of the “entrepreneurial orientation of small firms” lies in the handling of innovative actions along new
technology adoption, being proactive in both opportunity exploitation and exploration, acquisition of resources including competences which make up the ability of the firm to handle the challenges and lift out of stagnation, and in collaboration with external actors to get business stability and development. Due to the fact that a failure in risk-taking can be handled only to a very limited extent because of a lack of resilience, small entrepreneurs in the informal sector are very sensitive.

The entrepreneurial orientation in the informal sector in developing countries refers to small firm entrepreneurial behaviour comprised of five dimensions (encompassing innovativeness, proactiveness, resource-acquisition orientation, collaborativeness and moderate risk-taking). An entrepreneurial-oriented firm uses innovativeness as a general innovation orientation, an adoption of existing innovations that might improve businesses performance. An entrepreneurial-oriented small firm acts in a problem-focused way and proactively searches for new information while remaining largely open to the external environment. A small firm is motivated to engage in resource acquisition to lift the business out of stagnation and engage in a growth process. An entrepreneurial-oriented firm develops relationships and communications with actors to fill the limited resources available. This is not to say that an entrepreneurial-oriented firm will not be concerned with competition. However, entrepreneurial-oriented firms would be unlikely to engage in aggressive competition and would rather favour quality improvement and collaboration with others actors, including competitors.

Our contribution goes further than the identification of core EO dimensions by adding a manifestation of EO in the informal sector. Although much work still needs to be done, our conceptualization adds to efforts towards the systematic development of a theory of EO in the specific context of the informal economy. On the basis of this conceptualization, it is possible –on the basis of various theories and methods- to generate scientific statements. Our results have implications for a more realistic assessment of EO of small firms in the informal sector. Within the field of small business entrepreneurship, decisions and processes in micro and small enterprises are still of interest.

These results also have direct implications for the effectiveness of entrepreneurship of micro and small firms in the informal economy in developing countries. The adoption of EO as conceptualized by Miller seems not sufficient to capture the phenomenon in informal economies in developing countries. The emphasis on the importance of the five dimensions of Lumpkin and Dess (1996), may wrongly suggest that competitive aggressiveness and a firm’s autonomy are relevant for these firms at this stage. Integrating context-specific dimensions into Miller’s original dimensions would be a better option. Given that entrepreneurs operate with negligible resources
and within collectivistic social systems (Hofstede and Hofstede, 2001; Schwartz, 2006), it is important to consider both resource mobilization and integration as responses to resource scarcity (Baker et al., 2003), as well as collaborative behaviour in order to acquire a minimum of these resources.

Besides adding to the body of work on small business EO, the findings of this study will be useful as an insight for policy makers, practitioners, and researchers interested in small businesses operating within this context. Owner-managers may reappraise their entrepreneurial strategic orientations within the context of their aims and objectives by employing or benchmarking the strategies in their entrepreneurial activities. They may also want to adapt the strategies in their current and future businesses.
This chapter is based on: Yessoufou, A.W., Blok V. and Omta S.W.F. (2017). "Overcoming the one size fits all: Contextualizing and validating entrepreneurial orientation of small firms in poverty settings in developing countries": Under revision in the International Small Business Journal.
Developing Measures for Small Business Entrepreneurial Orientation

This chapter is based on: Yessoufou, A.W., Blok V. and Omta S.W.F. (2017). "Overcoming the one size fits all: Contextualizing and validating entrepreneurial orientation of small firms in poverty settings in developing countries"; Under revision in *the International Small Business Journal*
4.1 Introduction

The literature puts forward that the phenomenon of an entrepreneurial orientation (EO) represents a driving force of effectiveness upon which all organizations can be positioned (Wales, 2016). More than three decades after Miller’s (1983) seminal work regarding EO which provided clarity regarding this fundamental construct, there is still an increasing interest in EO. The construct remains intensively and extensively examined in the literature (Covin and Lumpkin, 2011; Wales et al., 2011). Furthermore, because EO is considered a cross-culturally sensitive strategic orientation (Wales, 2016), the relevance of this construct to theory and practice in non-Western contexts has also been recognized. For example, there is a very recent emerging focus on EO in developing and emerging economies (e.g., Le Roux and Bengesi, 2014; Adomako et al., 2016b; Okpara and Kabongo, 2009; Boso et al., 2013a; Boso et al., 2013b; Gupta and Batra, 2016) other than China, where most of studies on the construct have been conducted (Wales et al., 2013a).

Despite the increasing research regarding EO research in developing and emerging (henceforth D&E) economies (Gupta and Batra, 2016), a number of issues on the impact of the context on this strategic orientation has received limited attention in the literature (Johns, 2006). While EO was originally conceived as a cross-culturally sensitive and universally valid concept, the entrepreneurial propensities evidenced in the Western context may not be equally effective in a non-western context such as poverty settings in D&E economies (Randerson, 2016). More importantly, from the behavioural perspective, the behavioural patterns considered to be entrepreneurial may vary according to the context which firms operate in. For example, in a context of extreme resource scarcity, a bricolage behaviour may be more relevant than risk-taking behaviour. Similarly, when the business environment is highly uncertain (Sarasvathy, 2001), effectuation may be a decisive entrepreneurial behaviour. Thus, adopting entrepreneurial behavioural patterns developed in Western contexts to understand entrepreneurship in non-Western environments, particularly in poverty settings of D&E economies - the underdeveloped part known as the base of the pyramid (BoP), is problematic.

Indeed, there are dramatic differences between the institutional environments BoP and Western contexts (Zoogah et al., 2015; Lee and Peterson, 2001). On the one hand, in Western contexts, most businesses operate within the boundaries of the formal institutional environment, and formal institutions that incentivise, regulate activities, and offer a great potential for value creation (Webb et al., 2014). On the other hand, scholars reported that BoP entrepreneurs are forced to operate within informal institutional boundaries (Webb et al., 2015; Zoogah et al., 2015).
4.1 Introduction

The literature puts forward that the phenomenon of an entrepreneurial orientation (EO) represents a driving force of effectiveness upon which all organizations can be positioned (Wales, 2016). More than three decades after Miller’s (1983) seminal work regarding EO which provided clarity regarding this fundamental construct, there is still an increasing interest in EO. The construct remains intensively and extensively examined in the literature (Covin and Lumpkin, 2011; Wales et al., 2011). Furthermore, because EO is considered a cross-culturally sensitive strategic orientation (Wales, 2016), the relevance of this construct to theory and practice in non-Western contexts has also been recognized. For example, there is a very recent emerging focus on EO in developing and emerging economies (e.g., Le Roux and Bengesi, 2014; Adomako et al., 2016b; Okpara and Kabongo, 2009; Boso et al., 2013a; Boso et al., 2013b; Gupta and Batra, 2016) other that China, where most of studies on the construct have been conducted (Wales et al., 2013a).

Despite the increasing research regarding EO research in developing and emerging (henceforth D&E) economies (Gupta and Batra, 2016), a number of issues on the impact of the context on this strategic orientation has received limited attention in the literature (Johns, 2006). While EO was originally conceived as a cross-culturally sensitive and universally valid concept, the entrepreneurial propensities evidenced in the Western context may not be equally effective in a non-western context such as poverty settings in D&E economies (Randerson, 2016). More importantly, from the behavioural perspective, the behavioural patterns considered to be entrepreneurial may vary according to the context which firms operate in. For example, in a context of extreme resource scarcity, a bricolage behaviour may be more relevant than risk-taking behaviour. Similarly, when the business environment is highly uncertain (Sarasvathy, 2001), effectuation may be a decisive entrepreneurial behaviour. Thus, adopting entrepreneurial behavioural patterns developed in Western contexts to understand entrepreneurship in non-Western environments, particularly in poverty settings of D&E economies - the underdeveloped part- known as the base of the pyramid (BoP), is problematic.

Indeed, there are dramatic differences between the institutional environments BoP and Western contexts (Zoogah et al., 2015; Lee and Peterson, 2001). On the one hand, in Western contexts, most businesses operate within the boundaries of the formal institutional environment, and formal institutions that incentivise, regulate activities, and offer a great potential for value creation (Webb et al., 2014). On the other hand, scholars reported that BoP entrepreneurs are forced to operate within informal institutional boundaries (Webb et al., 2015; Zoogah et al., 2015)
because the formal institutions therein are weak, or broken (Khanna and Palepu, 1997; Puffer et al., 2010; Mair and Marti, 2009).

Owing to the differences in institutional environments between the BoP and the Western contexts, scholars should provide a contextualized definition of entrepreneurial tendencies and tools which are useful for capturing the phenomenon. The use of conceptual definitions, theoretical frameworks, and empirical measures originally developed in Western contexts to conduct research in BoP in D&E economies can be misleading. Put simply, there is a lack of, and thereby need for, greater engagement with contexts when generalizing the construct of EO to D&E economies, particularly the BoP. Whereas incorporating additional features or simply adapting EO dimensions to particular contexts is argued to be beneficial (George and Marino, 2011), previous studies conducted on the topic of EO in developing countries (Ginting, 2014; Gunawan et al., 2016; Lim and Envił, 2013; Ndubisi and Agarwal, 2014), including Sub-Saharan Africa (e.g., Boso et al., 2013a; Boso et al., 2013b; Ibeh, 2003; Okpara, 2009), have relied on the classical conceptualization by Miller/Covin and Slevin (1989). Entrepreneurial-orientation contextualization may allow researchers to highlight the various micro-processes, including the context-specific behaviours (Sarasvathy and Venkataraman, 2011; Ucbasaran et al., 2001; Zahra and Wright, 2011), to provide insight into the practices and their underlying mechanisms (Zahra et al., 2014).

We address this gap and develop a conceptual framework of small firms’ EO based on the extreme context of BoP informal sector in BoP in Sub-Saharan Africa. As a natural laboratory (Burgess and Steenkamp, 2006), this context offers opportunities for EO contextualization in a resource-constrained and uncertain institutional environment characterised by informal institutions. The main proposition is that such contextualized EO and an empirically tested measurement model is needed. Through a contextualization approach, the conceptualization and operationalization will enable future studies to advance their understanding of the implications of such a construct in relation to other existing entrepreneurial constructs and outcome variables (e.g., firm performance). In addition, this will also provide useful managerial implications in terms of a clear framework of EO to policymakers that are willing to promote locally initiated entrepreneurship in the BoP contexts.

In order to define the concept, develop and test a measurement model for OE, this study uses empirical research (qualitative, as well as quantitative) on entrepreneurial practices of agricultural entrepreneurs (agropreneurs), and integrates it with the existing literature on EO. The paper is organized as follows: First, we analyse the poverty settings in D&E economies for entrepreneurship...
research to illustrate how they differ from Western contexts, and discuss the challenges to apply constructs to such contexts. Second, a three-stage research design for the conceptualization of small firms’ EO in poverty settings, and scale development are introduced. Next, data analysis and empirical results are presented. Finally, we conclude with a discussion section, regarding the implications, and suggestions for further studies.

4.2 Poverty settings in D&E economies

Research on business in D&E economies has mainly focused on geographies such as Africa (Zoogah et al., 2015), Asia (Ansari et al., 2012; Bruton et al., 2008; Hill and Mudambi, 2010; Iakovleva et al., 2011), Latin America (Martinez and Kalliny, 2012), and the Middle East (Zahra, 2011). However, the underdeveloped areas of these regions (BoP) have their own distinctiveness. BoP context has been known for its special social, economic and institutional environments, which are dramatically different from other contexts in D&E economies (Zoogah et al., 2015). BoP contexts are characterized by a notable weakness in or absence of formal institutions needed for production and transaction (North, 1990). For example, formal economic institutions such as labour market and banking institutions, regulative systems, such as property rights (De Soto, 2000) and legal mechanisms (Kistruck et al., 2011; Webb et al., 2010) that incentivize and regulate production and transaction in urban centres, are missing. Economic entities such as small enterprises embedded in the local communities rely to a greater extent on informal institutions for providing complementary, substitute mechanisms for their activities (Webb et al., 2014). These informal institutions consist of family ties for operational support regarding labour, financial resources (Webb et al., 2015), social capital (Babah Daouda et al., 2016; Ingenbleek, 2014), business networks (Boso et al., 2013a; Boso et al., 2013b), and informal savings schemes (Dia, 1996), or traditional credit or trust systems.

The socioeconomic conditions of entrepreneurs at the BoP are characterized by low status and power, and a significant resource scarcity. Resource scarcity refers to limited access to key production and transaction factors such as technology, information, capital and knowledge (DeBerry-Spence, 2010; Fafchamps, 1994; Fafchamps, 1997; Henriques and Herr, 2007). For the growth of their entrepreneurial businesses, some entrepreneurs cope with the resource scarcity challenge by harnessing indigenous knowledge (Dia, 1996), traditional technologies related to agriculture, and service through ingenuity (Zoogah and Beugré, 2012). Other small-scale entrepreneurs rely on network relationship and experimental learning to facilitate the development and transformation of their enterprises (Dia, 1996; Rivera-Santos et al., 2015). Together, these typical characteristics of BoP contexts can have considerable impact on the way entrepreneurs
4.3 The problems of applying a construct and its measures to a new context

Key to the process of theory testing is the consistent use of clearly defined focal constructs that can be reliably measured and tested with a high degree of validity in order to ensure the correspondence between phenomena of interest and what is really measured (Peter, 1981). Reason for this is that constructs are abstract theoretical representations, thus unobservable by nature (Edwards and Bagozzi, 2000). The primary purpose of a construct is to delineate a domain of the attributes of a phenomenon that can be operationalized and measured. Thus, a clear definition with a shared understanding is regarded to be the foundation for any scientific inquiry. For example, in mainstream entrepreneurship research, most of the constructs are embedded in a positivist paradigmatic posture in which phenomena are seen as empirical objects independent of human consciousness, and are driven by universal natural laws with well-defined descriptive properties (Guba and Lincoln, 1982). According to this perspective, the context is minimized or removed from the analysis (Hjorth et al., 2008). As a result, both theoretical and empirical studies do not generate full support of the existence of contexts-specific practices, revealing the simplicity of a one-size fits-all approach. This is problematic, particularly for behavioural constructs such as EO because the entrepreneurial context influences entrepreneurs’ behaviours (Welter and Smallbone, 2011). The behaviours considered to be entrepreneurial may vary according to the dimensions of entrepreneurial context (see Zahra et al., 2014).

Disregarding this basic procedure of contextualizing entrepreneurial behaviours when conducting research on EO in a new context, such as the BoP, which differs from the Western context where the construct has originally been developed, comes with several limitations. First, there is the problem of a construct bias researchers may encounter when assessing the application of a construct to contexts (Van de Vijver and Tanzer, 2004). Construct bias implies that the conceptualization of the construct measured is not identical (Ingenbleek et al., 2013) in both the contexts where the construct has been developed, as well as in the new contexts in which the generalizability is being tested (Craig and Douglas, 2005; Kumar, 2000).

Second, in borrowing constructs without ensuring that they fit the situations under investigation, or the settings within which the research is conducted, may lead to measurement bias. A measurement bias often leads to misleading results, given the differences in the underlying constructs (Cavusgil and Das, 1997). In addition, it may attenuate the precision of estimators,
reduce the power of statistical tests of hypotheses, and provide misleading results (Van de Vijver and Tanzer, 1997).

One of the most incisive treatments to address these challenges is through a theoretical contextualization. This perspective suggests that, to advance both local and global theoretical knowledge (Meyer, 2007; Zoogah, 2008), research should abstract indigenous experiences and practices into general knowledge rather than importing exogenous theories into distinctive new contexts. In doing so, research can take several paths. One stream may adapt an extant construct to fit better a new context or completely refine the construct. George and Marino (2011) suggest viewing EO as a family of research articulated around the Miller’s (1983) three dimensions, and performing conceptual adaptation through two distinct mechanisms: intension and extension of the construct. A concept’s extension refers to the set of entities or cases to which the concept is applied, whereas a concept’s intension refers to the set of meanings or attributes encompassed by a concept (see, Sartori, 1970; Chimezie and Osigweh, 1989). These two mechanisms of adaptation reflect a “law of inverse variation” (Collier and Mahon, 1993). Thus, when a construct’s extension increases, its generalizability to new contexts increases, its intension or specificity decreases, and vice-versa. Consequently, through an adaptation based on the inverse variation law of construct’s intension or extension, researchers can build constructs capable of moving to a more abstract or specific level (i.e., general to specific or alternatively). When a construct moves down to a specific level (construct’s intension), it is characterized by more attributes in such way that it becomes more precise and better fits the contexts, but its generalizability to other contexts is reduced (George and Marino, 2011).

Since the behaviours exhibited as entrepreneurial can vary according to the context, this study takes a contextualized approach (Welter, 2011b; Zahra, 2007; Zahra et al., 2014) and draws upon the construct’s intension (George and Marino, 2011) to reconceptualise the EO of small firms operating in the informal sector in developing countries.

4.4 Conceptual review of EO and contextualization

Figure 4.1 details the research design in a three-stage process. After a review of the EO construct, the first stage is a conceptual process involving the proposition of dimensions for EO.

4.4.1 Original conceptualization of EO

The EO construct can be traced back from the strategic decision-making literature (Miles et al., 1978; Miller and Friesen, 1982; Mintzberg, 1973). The historical roots of the EO construct have...
been addressed in a number of recent studies including Basso et al. (2009), Covin and Wales (2012), and Miller (2011). Originally developed in order to analyse entrepreneurial companies on the firm level and generally used in that manner, the construct has proven to be applicable to the individual level as well (Gupta et al., 2015; Kollmann et al., 2007; Goktan and Gupta, 2015). Because many different units or levels of analysis can manifest entrepreneurship, EO levels can vary considerably across individuals, SMEs and large organizations. Individual entrepreneurial orientation (IEO) is conceived as a holistic assessment of individual proclivity towards entrepreneurship (Basso et al., 2009) and both EO and IEO comprise the same dimensions (Goktan and Gupta, 2015; Bolton and Lane, 2012).

A variety of dimensional combinations have been constructed in past research (Wales et al., 2013a). A three-dimensional view has been originally conceived by Miller (1983), and later expanded by Covin and Slevin (1989). This perspective presents EO as a combination of innovativeness, risk-taking, and proactiveness. Miller’s definition has provided the basis for a significant number of research projects in the entrepreneurship literature. Much of this research has sought to extend the EO construct by maintaining Miller’s three-component conceptualization. However, there are two main deviations from Miller’s conceptualization, namely the use of two dimensions rather than three, and the employment of a five-dimensional conceptualization. The approach of Lumpkin and Dess (1996) adds competitive aggressiveness and autonomy to the original three-dimension of Miller/Covin and Slevin (1989).

![Three-stage process of construct development and validation](image)

**Figure 4.1.** Three-stage process of construct development and validation

4.4.2 Contextualizing EO in small firms in poverty settings
As mentioned above, a poverty setting in developing economies provides a particularly relevant context to examine EO divergence since its socioeconomic, regulative and cultural institutional environments differ dramatically from the Western context. Whereas entrepreneurs all over the world have to deal with risk, adversity and other challenges, those in poverty settings face a significantly different challenges such as an extreme resource scarcity and a high level of uncertainty (Speakman and Rysova, 2015). The context is also marked by debilitating formal institutional voids, uncertain institutional environments, and the relative lack of market-based institutions and facilitating rules. Some coping strategies may therefore be more relevant for firms to survive and even sustain. Networking may be one of the best solutions for these firms. Indeed, networking is crucial to the entrepreneurial process regarding small firms or start-ups (Butler and Hansen, 1991; Johanson and Mattsson, 1987), because the information needed to start a business is passed to entrepreneurs, basically through the existing social networks of friends (Birley, 1986; Butler and Hansen, 1991) and family members (Khavul et al., 2009). Furthermore, financial and technical supports are also provided by members of the network. Thus, collaborative behaviour is of strategic importance. The networks enable small firms to create value and overcome individual-level and larger situational constraints and manage the uncertainties (Stam et al., 2014). Within the network, the logic of exchange differs from the economic logic of market and hierarchy. The logic of exchange in networks is more collaborative rather than aggressive competition. Hence, defining and measuring the EO of small businesses with competitive, entrepreneurial-oriented ones will not provide researchers and managers with relevant information. Therefore, integrating those behaviours considered to be entrepreneurial within such specific context matters. A small firm’s EO conceptual domain should also encompass specific dimensions related to resource mobilization to cope with resource scarcity, and collaboration with other stakeholders within or close to their environments.

We therefore put forward that the EO would be better captured through a conceptual adaptation approach by adding the specific behaviours or components of EO that small firms rely on in poverty settings to the original dimensions. In the light of the conceptual, methodological approach suggested by Sartori (1970) for concept travelling, we create discrete categories of the EO construct. We surmise that the EO of a small business in poverty settings may be conceived, depending on the situational environment and personal characteristics of its owner-manager. In addition to the standard dimension proposed by Miller (1983), the EO of small businesses would thus be intrinsically linked to their collaborative and resource mobilization capabilities. We therefore propose the inclusion of collaborativeness and resource mobilization orientation as two new additional dimensions to the original dimensions of EO identified by Miller (1983). Table 4.1
Chapter 4

summarizes the definitions of the conceptual domain of EO. However, some researchers have suggested that collaborative and resource mobilization orientation are antecedents to entrepreneurial behaviour rather than its essential components. To address this issue, we offer paths to clarify the inclusion of the two new dimensions in a small firm EO.

Table 4.1. Definitions of conceptual domains of small firms EO

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovativeness</td>
<td>A willingness to introduce newness and novelty through experimentation and creative processes aimed at developing new products and services or processes</td>
</tr>
<tr>
<td>Proactiveness</td>
<td>A forward-looking perspective feature of a person that has the foresight to search for new information and anticipation of the future</td>
</tr>
<tr>
<td>Risk taking</td>
<td>Taking decisions and action without certain knowledge of probable outcomes, some undertakings may also involve making substantial resource commitments in the process of venturing forward</td>
</tr>
<tr>
<td>Collaborativeness</td>
<td>A willingness in relationships and communication with actors to fill the limited resources available</td>
</tr>
<tr>
<td>Resource acquisition orientation</td>
<td>To engage in resource mobilization which make up the ability to handle challenges and engage in the growth process.</td>
</tr>
</tbody>
</table>

4.4.3 The role of resource acquisition and collaborative behaviour

We propose the inclusion of resource mobilization and collaborative behaviour as two context specific dimensions that are relevant to understanding EO in poverty settings. However, EO studies have not yet investigated these two dimensions as elements of EO. Through analysing resource requirements and considering what existing resources are available, firms can decide which resources they need to acquire from the environment, and the methods to be used. In this sense, resource acquisition is defined as the process by which firms acquire resources from the internal and external environment. Firms or individuals acquire additional resources in a variety of ways. They can (1) attract resources through their intangible ones, (2) purchase other resources with their financial resources, and (3) develop or accumulate resources internally (Brush et al., 2001). First, firms can develop new resources internally by combining and configuring existing resources in novel ways. Internal resource development processes as an aspect of resource acquisition developing the firm’s resource stock in a way that it offers exclusive advantages to the firm (Barney, 1991). Second, Sirmon et al. (2008) suggest that entrepreneurial-oriented firms can acquire resources from external factor markets. Resource purchase is the process through which firms buy target resources (e.g., patents, licenses, technology resources, equipment, recruiting employees) with their initial financial resources (Barney, 2001). Finally, Bowman and Collier (2006) posit a third route to resource acquisition through alliances and network relationships. The literature on strategic networks suggests that a firm can draw on relationships to gain access to a pool of resources that would otherwise be difficult to get hold of (Hughes and Morgan, 2007). To this end,
entrepreneurs can use external relationships to attract resources and change the constraints affecting the firm (Pfeffer and Salancik, 2003).

At the BoP level resource acquisition is arduous for micro and small firms. The reasons why entrepreneurs are likely to face greater difficulty in resource acquisition through purchasing or developing internal resources are due to two related issues. Small firms are inherently resource poor, and because their businesses are embedded in a weak institutional environment, BoP entrepreneurs are drawing upon informal institutions as substitute mechanisms for organizing and transacting (Zoogah et al., 2015). Thus, the acquisition of resources held by others within an informal arrangement is the most accessible to entrepreneurs (Webb et al., 2014). However, resource dependence perspective suggests that when firms or individuals establish relationships in order to gain access to those resources that they lack, asymmetric dependencies are created among them, and, the greater one individual’s dependence on another, the greater the power imbalance between them (Pfeffer and Salancik, 2003; Emerson, 1962; Mitchell et al., 1997). In this way, the relationship between a small firm and supporters can be viewed as a power relationship. The issue in this relationships for BoP entrepreneurs is that the power that results from the relationships may confer bargaining power to resource suppliers, which, if abused during negotiations, may enable supporters to extract exorbitant prices, or develop opportunistic behaviour.

Due to a lack of formal institutions, actors in BoP settings exhibit relatively social embeddedness in order to fill the formal regulative gaps (De Soto, 2000) and prevent against malpractices or opportunism (Hitt et al., 2000). Embedded ties or collaboration creates long-term social contacts. That means the actors have continuing relationships that helps to maintain the status quo and limits actions that might disrupt a traditional order (Licht et al., 2005; Schwartz, 2006). Various studies highlight these social interactions and network relationships in poverty settings (Chikweche and Fletcher, 2010; Viswanathan et al., 2010). Thus, through embeddedness in traditional ties, including professional groups, members come to view themselves as collective group entities, and emphasize mutual solidarity and reciprocity rather than rivalry (Schwartz, 1992). Thus, in such a context, the concept of competition tends to be meaningless or may have a more negative connotation. By contrast, collaborative orientation of entrepreneurs is taken to imply a positive form of working that could yield opportunities and mutual benefits for all actors. It is more like strategic collaboration to guarantee mutual benefits and responsible behaviours. Thus, collaborative orientation or collaborativeness from an EO perspective refers primarily to a strategic collaboration, and a means of tackling malpractices.

Second, a majority of existing scales on inter-organizational relationships focuses on resource dependence-level of collaboration. As noted earlier, the type of collaborative behaviour suggested...
by EO of small firms in BoP settings is primarily strategic, that is, concerned with having the possibility to counterbalance the bargaining power of resource suppliers rather than simply addressing the resource scarcity issue. Based on our review, it appears that none of extant scales adequately assessed collaborative behaviour from an EO perspective. In the next section, we draw on the insight from existing scales and experts’ views to propose an EO–based resource acquisition behaviour and collaborativeness scale and report results from empirical tests of the proposed scale.

4.5 Empirical base: operationalization methodology

As a construct, the proposed EO of small firms in poverty settings conceptually describes the phenomenon, but this construct is unobservable (Edwards and Bagozzi, 2000). In order to obtain a reliable and valid scale, we followed a standard scale development and validation procedure recommended by MacKenzie et al. (2011). This procedure consists of a two-stage process and mixed-method approach. In stage two, after the re-conceptual definition and before quantitative operationalization of the construct, an initial qualitative study was performed to corroborate the robustness of the developed conceptualization, as well as providing an initial list of scale items related to different sub-dimensions of EO. Afterwards, a quantitative study was used. We empirically measured the construct by applying indicators which represent observed scores or quantified records (Edwards and Bagozzi, 2000). Then, we addressed the measurement issues through the content adequacy and the validity of the construct, because they pertain to the degree of correspondence between constructs and their measures. Content adequacy and the construct validity are necessary conditions for theory development, refinement and testing (Peter, 1981).

4.6 Content Adequacy

The content adequacy refers to the degree in which the approach used to measure a construct reflects the theoretical domain of that construct (Schriesheim et al., 1993), and it is a way to estimate content validity. Content adequacy is achieved by clearly and rigorously defining the construct, followed by specifying the content domain relevant to measuring it, then drawing a representative set of items, and finally testing how these perform empirically (Lumpkin et al., 2009). In stage two (Figure 4.1), we employed a content-adequacy assessment method developed by (Schriesheim et al., 1993), which is increasingly employed to demonstrate content validity in organizational (e.g., Carlson et al., 2006; Liden and Maslyn, 1998; Williams et al., 2002) and entrepreneurship research (e.g., Lumpkin et al., 2009).
4.6.1 Measurement model

Once the conceptual framework had been established, we ensured that the measurement model was consistent with that framework. The present study, based on a confirmatory factor analysis perspective viewed the EO construct through the lens of four measurement specifications: (A) reflective unidimensional model (Covin and Slevin, 1989) and multidimensional specification that includes (B) five-factor, (C) reflective second-order, (D) and formative second-order models, to explore the structure of the construct (George, 2011). Figure 4.2 shows the representation of the measurement specifications.

![Diagram of Measurement Models](image)

**Figure 4.2.** Four types of measurement models based on a confirmatory factor analysis perspective.
4.6.2 Item generation

To generate an adequate pool of items reflecting the dimensions of EO construct, we conducted a literature review targeting items that are cross contextually valid, and gathered and developed a pool of items, so-called etic items (Kumar, 2000; Steenkamp and Baumgartner, 1998). Next, context-specific items, so-called emic items (De Jong et al., 2009; Kumar, 2000; Steenkamp, 2005) were generated. Two focus group discussions were conducted with experts in the sectors to develop these emic items. The first session was aimed at generating relatively new items. The focal question was: what activities, practices and actions are reflected in each of the five dimensions. The meaning of each dimension or category was explained to the participants beforehand. This resulted in a pool of 27 items reflecting the various facets and meanings of the construct. Our intention of generating a large sample of items was to ensure a sufficient breadth of content and an adequate pool of items within each of the theoretical components. Whereas a small number of items may provide a more parsimonious measurement scale, a large number has an advantage due to the ability to average specific errors and to increase reliability and enable finer distinction between subjects (Churchill, 1979).

Second, we added the adapted pool of etic items initially retained from the literature to emic items generated. We went through several rounds of rigorous editing to reduce the large pool of items to a manageable number. We deleted those items that were ambiguous, repetitive, and with loaded meaning. We requested four experts, including an academic, to rank each item in terms of its relevance to the particular component of the construct. We deleted those items that were deemed irrelevant. This left us with 35 items.

4.6.3 Content validity

We designed a questionnaire to collect the data on each dimension investigating the construct in Likert-type statements. Participants indicated their agreement or disagreement on a five-point scale. We adapted five pebbles with different sizes as a graphical representation of the five-point scale, because of concrete and pictographic thinking of low-literate people in rural areas in developing countries (e.g., Gau et al., 2012; Ingenbleek et al., 2013). To assess how each of the items would be understood in a field setting, we conducted a pilot study of the questionnaire with ten farmers. We administered the questionnaires and interviewed the participants to understand which items were confusing, ambiguous, irrelevant, or otherwise difficult to answer. Based on their feedback, we deleted seven items. Finally, we had 28 items capturing various aspects of the construct.
Data collection was conducted through interviews. The respondents were selected using a stratified sampling approach (Koenig and Shepherd, 2001), using the following criteria: acreage under vegetable production in 2009, and trading with local, regional or international market buyers. Other factors also contributed to the selection criteria: being knowledgeable about the subject matter, and willing and able to communicate with the researcher (Campbell, 1955). The data were collected between April 2015 and February 2016. We surveyed 240 producers.

Data analysis was conducted in two phases. First, exploratory factor analysis (EFA) was conducted to guide the selection of reduced items. We used principal component analysis (PCA) with oblique rotation (Promax) which permits factors to demonstrate correlation, which is desirable in the construction of a scale because theoretical constructs would normally have a certain amount of overlap amongst them (Conway and Huffcutt, 2003). Then, we dropped any items that loaded on multiple factors and/or had low loadings. Second, the latent factor structure was assessed based on confirmatory factor analysis (CFA). Next, the assessment of the overall measurement model fit to the data based on the chi-square statistic, the comparative fit index (CFI), the root mean square error of approximation (RMSEA), the standardized root mean square residual (SRMR), and the Akaike’s information criterion (AIC) have been carried out. Finally, we compared the competing models of EO based on their overall measurement model fit to the data.

4.7 Validity assessment

Construct validity addresses the issue of what property or properties account for the variation in a test or scale, or which constructs account for variation in a test performed (Bluedorn et al., 1999). Construct validity reflects “the correspondence between a construct and a measure taken as evidence of the construct” (Edwards and Greenberg, 2003). To address this question, in stage three (Figure 4.1), we investigated the link or vertical correspondence between the construct and its indicators by evaluating, using three criteria: reliability, convergent validity, and discriminant validity (Schwab, 2005). All indicators were examined in a CFA model, using the R- statistical package and maximum likelihood estimation method. The fit of the measurement model was judged by employing the chi-Square statistic, with its associated degrees of freedom, together with several traditional approximate fit indices. We employed the best fit model to conduct the assessment. A summary of statistics and methods applied to assess the validity are presented in Table 4.2.

Regarding the discriminant validity, in addition to the Fornell-Larker criterion and the chi-square difference test, we assessed this validity by calculating the heterotrait-monotrait (HTMT) ratio recently introduced by Henseler et al. (2015), and claimed by Voorhees et al. (2016) as the
best assessment of discriminant validity in variance-based structural equation modelling (SEM). For Voorhees et al. (2016) in some situations where they expected or suspected a discriminant validity problem, the AVE-SV and cross loadings did perform poorly to detect these kind of issues. The HTMT test requires the calculation of a ratio of the average correlations between constructs to the geometric mean of the average correlations within items of the same constructs (see, Henseler et al., 2015). The key criterion for the HTMT test has to do with whether the HTMT ratio approaches 1.0. A value close to one would be interpreted as a discriminant validity violation. Although the exact HTMT ratio that would trigger a discriminant validity violation is open to some interpretation, (Henseler et al., 2015) suggest the threshold of 0.85 (HTMT.85) based on Clark and Watson’s (1995) recommendations, and 0.90 (HTMT.90) based on Gold and Arvind (2001). The HTMT.85 is a conservative criterion while HTMT.90 is more liberal. HTMT below 0.90 indicates a discriminant validity using the liberal criterion and HTMT below 0.85 indicates a discriminant validity using a conservative criterion. Based on all possible pairs of sub-constructs, we computed the HTMT ratio and compared them to HTMT.85. Finally, we performed a statistical validity test of HTMT (HTMT inference). The bootstrapping procedure allowed for the construction of confidence intervals for the HTMT, in order to test the null hypothesis (H0: HTMT ≥ 1) against the alternative hypothesis (H1: HTMT < 1). A confidence interval containing the value one (i.e., H0 holds) indicates a lack of discriminant validity. Conversely, if the value one falls outside the interval’s range, this suggests that the two constructs are empirically distinct.

Because we have multiple sub-constructs for EO, and therefore a need to apply multiple tests to pairs of constructs, we controlled the inflation of Type I errors resulting from the multiple testing problem (Rupert, 2012), by adjusting the upper and lower bounds of the confidence interval (CI) in each test to maintain the familywise error rate at a predefined z level (Anderson and Gerbing, 1988). We used the Bonferroni adjustment to assure that the familywise error rate of HTMT inference does not exceed the predefined z level in all the six tests. The Bonferroni approach is considered to be suitable in the context of variance-based SEM techniques (Gudergan et al., 2008) and a conservative approach to maintain the familywise error rate at a predefined level (Holm, 1979; Hochberg, 1988). The implementation is that HTMT inference is more conservative in terms of its sensitivity to assess discriminant validity.
The HTMT test requires the calculation of a ratio of the average correlations between constructs to the geometric mean of the average correlations within items of the same constructs (see, for example, Henseler et al., 2015). The key criterion for the HTMT test has to do with whether the HTMT ratio approaches 1.0. A value close to one would be interpreted as a discriminant validity violation.

For Voorhees et al. (2016) in some situations where they expected or suspected a discriminant validity violation, the best assessment of discriminant validity in variance-based structural equation modeling (SEM) is the square root of the average variance extracted (AVE). A value of this statistic of the likelihood ratio test is the exact fit of a specified model of a population (MacCallum et al., 1996). If chi-square is "non-significant" (i.e., p-value > alpha), this indicates that the model fits the data relatively well. If the chi-square is "significant" (i.e., p-value < alpha), the model does not fit the data well.

### Table 4.2. Statistics and methods applied for validity assessment

<table>
<thead>
<tr>
<th>Methods for construct Validity assessment</th>
<th>Assessment criteria</th>
<th>Explanation and thresholds for acceptability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall fit of the measurement model to the data</td>
<td>Chi-square statistic of the likelihood ratio test</td>
<td>Chi-square statistic of the likelihood ratio test is the exact fit of a specified model of a population (MacCallum et al., 1996). If chi-square is &quot;non-significant&quot; (i.e., p-value &gt; alpha), this indicates that the model fits the data relatively well. If the chi-square is &quot;significant&quot; (i.e., p-value &lt; alpha), the model does not fit the data well.</td>
</tr>
<tr>
<td></td>
<td>Comparative Fit Index (CFI)</td>
<td>The CFI is an incremental index that describes the relative improvement in the fit of the model in comparison with the fit of the independence model. Thus, this index overcomes sample size effects (Bentler, 1990). CFI values closer to 1.0 indicates a better fit (Acceptable fit: CFI &gt; .90; good fit: CFI &gt; .95).</td>
</tr>
<tr>
<td></td>
<td>Root mean square error of approximation (RMSEA)</td>
<td>The RMSEA is a parsimony index that assesses if the specified model reasonably approximate the data (as opposed to assessing if it is an exact fit). This criterion adjusts for the model degrees of freedom (MacCallum et al., 1996). RMSEA values closer to 0.0 indicating a better fit (Acceptable fit: RMSEA &lt; .08; good fit: RMSEA &lt; .05).</td>
</tr>
<tr>
<td></td>
<td>SRMR (SRMR)</td>
<td>SRMR values closer to 0.0 indicate a better fit (acceptable fit: SRMR &lt; .08; good fit: SRMR &lt; .05).</td>
</tr>
<tr>
<td></td>
<td>AIC (Akaike’s information criterion)</td>
<td>AIC is a predictive fit index that measures model fit based on the model’s capacity to be replicated in future samples. This criterion considers the model degrees of freedom and allows for a comparison of different non-nested measurement models; lower values indicate a better fit (Akaïke, 1974).</td>
</tr>
<tr>
<td>Reliability</td>
<td>Item reliability</td>
<td>Item reliability measures the strength of the linear relationship between an indicator and its latent factor (Bagozzi &amp; Baumgartner, 1994, p. 402). It is examined using the R2 value that is associated with each indicator to factor equation. Acceptable item reliability: R2 &gt; .4.</td>
</tr>
<tr>
<td></td>
<td>Construct reliability</td>
<td>Construct reliability refers to the degree to which a set of measures are consistent with their measurement (Hair et al., 2010). Acceptable construct reliability &gt; .6.</td>
</tr>
<tr>
<td></td>
<td>Average variance extracted (AVE)</td>
<td>Average variance extracted (AVE) measures the amount of variance in a set of indicators that is accounted for by the latent factor in the model (Fornell and Larcker, 1981). Acceptable average variance extracted &gt; .5.</td>
</tr>
<tr>
<td>Convergent validity</td>
<td>Standardized factor loadings</td>
<td>Factor loadings with the theoretically predicted sign, an estimate above .5 (acceptable convergence) or above .7 (good convergence), and statistical significance constitute evidence of convergence (Carlson and Herdman, 2012).</td>
</tr>
<tr>
<td>Discriminant validity</td>
<td>Fornell-Larcker criterion</td>
<td>The AVE for a factor is compared with all squared correlations of this factor with other factors in the overall measurement model. If the average variance extracted is greater than the squared correlations in all cases, this result is a strong indicator of discriminant validity (Fornell and Larecker, 1981; Gefen and Straub, 2005).</td>
</tr>
</tbody>
</table>
significant correlations among at least some of the variables. The KMO statistic was .850, which was highly significant at p< 0.0001 showing that correlation matrix has significant correlations among at least some of the variables. The KMO statistic was .850, which is acceptable to consider a factor solution accounting for 60% of the total variance (Hair et al., 2010). The rotated factor loadings and the breakdown of items in factors appear in Table 4.3.

As proposed in defining and conceptualizing the underlying dimensions of EO, the eigenvalues (1.0) and scree plots suggested to extract five factors after subsequent iterations following deletion of cross-loaded items. The total variance explained for these factors ranged from 31.7 to 71.98%, showing that derived factors explain more than half of the variance. Despite that there is no absolute threshold to decide on the number of factors extracted, as a rule of thumb in social science it is acceptable to consider a factor solution accounting for 60% of the total variance (Hair et al., 2010). The rotated factor loadings and the breakdown of items in factors appear in Table 4.3. Bartlett’s test of Sphericity was highly significant at p< 0.0001 showing that correlation matrix has significant correlations among at least some of the variables. The KMO statistic was .850, which demonstrates the appropriateness of data for factor analysis at all acceptable levels, exceeding the critical value of .50. Besides, none of the values in measures of sampling adequacy diagonals is less than the critical value of .50 either.
Table 4.3. EFAs for entrepreneurial orientation construct

<table>
<thead>
<tr>
<th>Factors</th>
<th>Corresponding statements</th>
<th>Factor loading</th>
<th>Variance explained</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge acquisition orientation</td>
<td>I regularly focus to know the requirements for growth in my business</td>
<td>.869</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I learn to know my internal business needs (e.g., know- how about production and transaction)</td>
<td>.846</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I always learn from strengths and weaknesses, opportunities and threats of my businesses</td>
<td>.842</td>
<td>31.73</td>
<td>0.90</td>
</tr>
<tr>
<td></td>
<td>I always keep focus on understanding what are my personal needs and objectives</td>
<td>.764</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I regularly learn about how to appreciate and maximize the relationship with advisory supporting services</td>
<td>.722</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk-taking</td>
<td>When a new method of production or a new technology is introduced to the market, I will wait until other establishments try them to make sure that they are not of high risk. It is only then that I follow that method or technology (R)</td>
<td>.973</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I do not take any action in the market, unless I make sure it won’t be risky at all (R)</td>
<td>.963</td>
<td>48.07</td>
<td>0.97</td>
</tr>
<tr>
<td></td>
<td>I prefer to apply methods and procedures which have already been tested in the marketplace and that they are not too risky (R)</td>
<td>.962</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovativeness</td>
<td>I always try to apply new production methods and technologies in the performance of my activities.</td>
<td>.861</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I have been changing our marketing strategies during the last 5 years to keep a higher rate of customer satisfaction and growth in sale</td>
<td>.845</td>
<td>58.42</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I always look for new ideas and techniques</td>
<td>.793</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I always keep focus on investing in the way to keep pace with the modern agricultural market and industry.</td>
<td>.641</td>
<td>31.73</td>
<td>0.81</td>
</tr>
<tr>
<td>Collaborativeness</td>
<td>There are specific clients to whom I sell my production</td>
<td>.878</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I enjoy selling my production to particular customers and hope to maintain our relationship with other producers</td>
<td>.767</td>
<td>65.58</td>
<td>0.70</td>
</tr>
<tr>
<td></td>
<td>I do have a strong sense of cooperation with other producers</td>
<td>.705</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I can easily predict the action of competitors and set my strategies accordingly</td>
<td>.907</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proactiveness</td>
<td>I respond more rapidly to the changes happening in the market than our competitors do.</td>
<td>.771</td>
<td>71.25</td>
<td>0.77</td>
</tr>
<tr>
<td></td>
<td>I am able to predict future demands and the necessary changes of products</td>
<td>.755</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.8.2 Confirmatory factor analysis

Before comparing the competing models, an unrestricted exploratory five-factor model was tested. An unacceptable fit of the unrestricted model would prevent further tests of more restricted models (Mulaik and Millsap, 2000; Jöreskog, 1967). We ran a five-factor model. We used chi-square and conventional criteria for three fit indices that are widely used in the literature (e.g., Hair et al., 2010).
The five-factor unrestricted model was defined as follows: (a) there were five common factors: innovativeness, proactiveness, risk-taking, collaborativeness and knowledge-acquisition orientation; (b) a marker item was chosen for each factor (for simplicity, we chose the first item of each factor), and the marker variable’s loading on the factor that was designed to measure was freely estimated (Mulaik and Millsap, 2000); and (c) error terms associated with each item were uncorrelated. To identify the model, the variances of the factors were set to 1. The result showed average to good fit with the data. The chi-square statistic associated with the structure of the underlying relationship is significant (chi-square = 281.236, p value = 0.000). The Comparative Fit Index (CFI) is 0.952. The Tucker Lewis Index (TLI) is 0.943. The Root Mean Square Error of Approximation (RMSEA) has a value of 0.006, which falls fairly outside the acceptable range of .05 or less.

However, there was substantial scope for improving the model fit and its parsimony. Hence, two poorly performing items were identified, and deleted one by one from the scale as they showed small size on the loadings of the knowledge-acquisition factor. Moreover, one problematic factor was also identified. The risk-taking factor showed a negative covariance with the collaborativeness factor. In addition, this factor shared a low common variance with innovativeness and proactiveness. We therefore deleted this factor. Every single deletion was followed up with a re-estimation of the model, which produced significant incremental fit every time. Finally, 15 items and a four-factor measurement model were retained which showed a good fit with the data as we can see in Table 4.3 (chi-square = 165.681, df = 84, p value = 0.000, CFI = 0.944, TLI = 0.930, GFI = 0.912, RMSEA = 0.068).

### 4.8.3 Comparison of the competing models

Table 4.4 shows CFAs for four competing models: (a) unidimensional factor model (b) unrestricted four-factor model, (c) reflective second-order, and (d). Thus, we compared the nested models. First, the unidimensional factor model hypothesized that the entrepreneurial orientation could be explained by only one dimension. As can be seen from the Table 4.4, the unidimensional model shows a poor fit (chi-square = 675.532, df = 90, p value = 0.000, CFI = 0.597, TLI = 0.530, GFI = 0.614, RMSEA = 0.176).

Second, a reflective second-order factor model which hypothesized that the entrepreneurial orientation could be explained by first-order factors - innovativeness, proactiveness, and knowledge acquisition- the results show a good fit (chi-square = 167.434, p value = 0.000, CFI = 0.944, TLI = 0.932, GFI = 0.911, RMSEA = 0.067). The chi-square difference test between the unidimensional model and the reflective second-order model was significant, \( \Delta \text{chi-square} = \)
508.098, Δdf=4, p < .001 (Table 4.4), indicating that reflective second-order fit the data better than the unidimensional model.

Finally, the results of the formative second-order model which hypothesized that the entrepreneurial orientation is an algebraic or aggregate of its four reflective first-order factors showed an adequate fit (chi-square = 378.213, df= 166, p value = 0.001, CFI = 0.9815, TLI = 0.815, GFI = 0.824, RMSEA = 0.0104). The chi-square difference test between the reflective and formative second-order models was not significant, Δchi-square = 210.779, Δdf= 80, p < 0.001 (Table 4.4). However, there was an improved in the chi-square value and the fit indices were fairly similar. We employ the four factor model to examine the reliability, convergent validity, and discriminant validity.

Table 4.4. Summary of fit statistics for the hypothesized models

<table>
<thead>
<tr>
<th>Model</th>
<th>Chi-square</th>
<th>df</th>
<th>CF</th>
<th>TL</th>
<th>GF</th>
<th>RMS</th>
<th>AVE</th>
<th>Reflective vs. Unidimensional Δchi-square</th>
<th>Δdf</th>
<th>Reflective vs. Formative Δchi-square</th>
<th>Δdf</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unidimensional Model (Model A)</td>
<td>675.532</td>
<td>90</td>
<td>97</td>
<td>3</td>
<td>14</td>
<td>0.176</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unrestricted four-factor model (Model B)</td>
<td>165.681</td>
<td>84</td>
<td>44</td>
<td>3</td>
<td>12</td>
<td>0.068</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflective second-order model (Model C)</td>
<td>167.434</td>
<td>86</td>
<td>44</td>
<td>32</td>
<td>11</td>
<td>0.067</td>
<td></td>
<td>508.098*</td>
<td>4</td>
<td>210.779</td>
<td>80</td>
</tr>
<tr>
<td>Formative second-order model (Model D)</td>
<td>378.213</td>
<td>6</td>
<td>15</td>
<td>15</td>
<td>24</td>
<td>0.104</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.8.4 Constructs reliability and variance extracted

As shown in Table 4.5, all factors in the four-factor model demonstrate evidence of reliability regarding the two criteria. Factor reliability came out to be ranged from 0.78 to 0.90 higher than the acceptable value of 0.6 (Bagozzi and Yi, 1988). The average variance extracted (AVE) came out to be ranged from 0.49 to 0.65 higher than the acceptable value 0.4 as recommended by Hair et al. (2010).
Table 4.5. Construct reliability and extracted variance

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimension</th>
<th>Construct Reliability</th>
<th>Average Extracted Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unrestricted four-factor model (Model B)</td>
<td>Innovativeness</td>
<td>0.81</td>
<td>0.52</td>
</tr>
<tr>
<td></td>
<td>Proactiveness</td>
<td>0.78</td>
<td>0.56</td>
</tr>
<tr>
<td></td>
<td>Collaborativeness</td>
<td>0.74</td>
<td>0.49</td>
</tr>
<tr>
<td></td>
<td>Knowledge-acquisition orientation</td>
<td>0.90</td>
<td>0.65</td>
</tr>
<tr>
<td>Reflective second-order model (Model C)</td>
<td>Innovativeness</td>
<td>0.81</td>
<td>0.52</td>
</tr>
<tr>
<td></td>
<td>Proactiveness</td>
<td>0.78</td>
<td>0.56</td>
</tr>
<tr>
<td></td>
<td>Collaborativeness</td>
<td>0.74</td>
<td>0.49</td>
</tr>
<tr>
<td></td>
<td>Knowledge-acquisition orientation</td>
<td>0.90</td>
<td>0.64</td>
</tr>
<tr>
<td>Formative second-order model (Model D)</td>
<td>Innovativeness</td>
<td>0.81</td>
<td>0.52</td>
</tr>
<tr>
<td></td>
<td>Proactiveness</td>
<td>0.79</td>
<td>0.56</td>
</tr>
<tr>
<td></td>
<td>Collaborativeness</td>
<td>0.74</td>
<td>0.49</td>
</tr>
<tr>
<td></td>
<td>Knowledge-acquisition orientation</td>
<td>0.90</td>
<td>0.66</td>
</tr>
</tbody>
</table>

4.8.5 Convergence validity

Convergent validity is tested by determining whether the measures in a scale converge or load together on a single construct in the measurement model. First, as shown in Table 4.3, all Cronbach’s alpha values greatly exceed the cut-off of 0.7 recommended by Nunnally (1970), indicating good internal consistency (Cohen et al., 2009). Next, all factor loadings of the items on their respective constructs were high, ranging from .064 to 0.96; thus higher than the cut-off value of 0.70 (Fornell and Larcker, 1981). Finally, the good fit indices produced from CFA of the four-factor model, the magnitude and direction of loading for the four latent variables (Table 4.3) provide additional evidence of the four constructs convergent validity.

4.8.6 Discriminant validity

For the discriminant validity, we verified whether the scales developed to measure the constructs are effectively measuring different constructs. In the fields of management information systems (Ringle et al., 2012), marketing (Hair et al., 2012a), and strategic management (Hair et al., 2012b), a number of studies using variance-based structural equation modelling usually rely on two approaches to establish discriminant validity (Henseler et al., 2015). These two approaches are cross-loadings or item-level discriminant validity (Chin, 1998), and the average extracted variance versus shared variance method known as Fornell and Larker’s (1981) criterion. We followed the
following procedure. First, using cross-loadings method, “discriminant validity is shown when each measurement item correlates weakly with all other constructs except for the one to which it is theoretically associated” (Gefen and Straub, 2005). An examination of the loadings (Table 4.6) shows that all items load highly on their respective constructs, far exceeding the recommended value of 0.5. Second, Fornell and Larker (1981) suggest that discriminant validity is established if a latent variable accounts for more variance in its associated indicator variables than it shares with other constructs in the same model. Applying this method of average-extracted variance and shared variance (AVE-SV), each construct’s average variance extracted is compared to its squared correlation with other constructs. The square root of AVE for each construct is larger than any correlation value among sub-dimensions of EO (Table 4.6), showing that all constructs share greater variance with their own measures than with other measures (Fornell and Larcker, 1981; Gefen and Straub, 2005).

**Table 4.6. Squared correlation coefficient matrix and AVEs (diagonal values)**

<table>
<thead>
<tr>
<th></th>
<th>Mean (SD)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Innovativeness</td>
<td>0.52</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Proactiveness</td>
<td>0.68</td>
<td>0.56</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Collaborativeness</td>
<td>0.47</td>
<td>0.45</td>
<td>0.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Knowledge-acquisition orientation</td>
<td>0.41</td>
<td>0.48</td>
<td>0.36</td>
<td>0.66</td>
<td></td>
</tr>
</tbody>
</table>

The results of the bootstrapping HTMT inference as can be seen in Table 4.7, showing that the value one (1) falls outside of the confidence intervals in all of the tests. This result provides further support for the conceptualization of small holder EO as composed of four separate and distinguishable dimensions.

**Table 4.7. HTMT and bootstrapping confidence intervals (alpha = 1%)**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Innovativeness</td>
<td>0.58</td>
<td>CI.99 [0.51 ; 0.66]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Proactiveness</td>
<td>CI.99 [0.44 ; 0.61]</td>
<td>0.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Collaborativeness</td>
<td>CI.99 [0.39 ; 0.56]</td>
<td></td>
<td>CI.99 [0.28 ; 0.44]</td>
<td></td>
</tr>
<tr>
<td>4. Knowledge-acquisition orientation</td>
<td>CI.99 [0.35 ; 0.51]</td>
<td>CI.99 [0.35 ; 0.51]</td>
<td>CI.99 [0.35 ; 0.51]</td>
<td></td>
</tr>
</tbody>
</table>

CI.99 = Confidence interval at 99%
Chapter 4

4.9 Discussion and conclusion

The BoP context in D&E economies raises questions regarding the generalizability of mainstream entrepreneurship theories and practices in such EO. We first discussed the challenges researchers face when transferring theoretically grounded constructs to a setting different from where the constructs were originally developed. We then provide ways to remedy these challenges through construct adaptation. Building on the dramatic differences between the Western and BoP contexts, we adopted a contextualized approach to EO of small firms operating within and near to BoP contexts in D&E economies. We conceptualized EO as a multidimensional construct and developed scales to measure the dimensions. Data from this study provided support for the content validity of a four dimension scheme encompassing innovativeness, proactiveness, collaborativeness, and knowledge-acquisition orientation. The findings imply that in addition to the more general characteristics of innovativeness and proactiveness, context-specific dimensions – knowledge-acquisition orientation and collaborativeness – should be present for a firm to be entrepreneurially oriented at the BoP level. These two dimensions should be a primary concern in BoP settings as well as innovativeness and proactiveness. However, our data do not support risk-taking as a dimension of EO in poverty settings. The most likely explanation for this finding stems from our qualitative study, in which several informants mentioned being risk averse, while others were willing to take only moderate risks. What may explain this, is that there is no room for high risk-taking in this context. Small firms from BoP contexts are more lifestyle enterprises because they are focusing more on income generation for the household or family, and do not have a growth orientation as primary goal. In these contexts risk is not risk of bankruptcy, but of a death and despair because there is no capital available with which entrepreneurs can take relatively high risks (Banerjee and Duflo, 2008). Furthermore, because business venturing is associated with risk-taking activities, small firms already have positive attitudes toward risk-taking. Thus, an explanation for our findings could be a matter of risk management (Herranz et al., 2015), rather than being completely averse to risk-taking. Small firms from BoP contexts require minimal risk-taking (Fletcher, 2010) to make enterprises resilient to unexpected stressful and adverse situations (Beck et al., 2008; Armenakis and Harris, 2009).

Given the importance of knowledge acquisition and collaborative behaviours, there are few studies that address their contribution to entrepreneurial behaviour of small firms. One explanation could be that entrepreneurship research has tended to pay less attention to the context in investigating EO, focusing instead on general and abstract definitions of the construct.

A contextualised perspective, by contrast, suggests that decision-making and behavioural actions are situated processes. Few existing studies address this issue. This paper therefore makes
an important contribution by revealing these two dimensions of EO regarding small firms in the BoP. Moreover, the paper theoretically examines the role of these new additional dimensions and provides a first step towards developing a psychometrically measure for the construct. From a wider perspective, this study responds to the urgent call for more contextualization on entrepreneurship research (Welter, 2011; Zahra, 2007; Zahra et al., 2014).

Specifically, this study contributes to research on EO measurement in three ways. First, regarding the conceptual level of the construct, we clarify the EO construct in poverty settings. Construct clarity encompasses definitions, semantic relationships, contextual conditions, and coherence (Suddaby, 2010). We offer the theoretical framework and dimensions of EO, which capture essential characteristics, avoid circularity, and are parsimonious. Although this framework is simple, it provides an understanding of the coping strategies entrepreneurs develop within hostile and resource-scarce environments in which they normally operate.

Second, regarding the link between the conceptual and operational levels of the validity, we establish the content and the construct validity of EO measures. We develop a set of EO indicators. In addition, we test the construct validity based on the four EO dimensions. We, thus, contribute to the establishment of a link between the conceptual and operational levels. We empirically confirm that context-specific dimensions should be included when measuring EO and its dimensions. Additionally, we propose a scheme that measures the dimensions in a parsimonious manner, and thus extend the EO, which is an important construct in strategic management research, to BoP settings in D&E economies.

Third, we reveal the potential measurement models that can be used to test the relationships with other variables. The study contributes by shedding light on an inconsistent use of the EO conceptualization and measurement in poverty settings. The new four-dimensional EO measurement scheme, may be employed in future empirical studies, and thus may increase the rigour and relevance of the EO construct regarding entrepreneurship research.

Although we systematically collected and analysed the data, these data reflect the agricultural sector in one country; therefore, the findings may be sector and country specific. Future research mainly relies on cross-sectional data, panel data may reveal different structures of entrepreneurial orientation.

In summary, we encourage further quantitative research regarding strategic and operational management of bottom-up entrepreneurship in poverty setting in D&E economies. Such research should take careful account of the limitations inherent to borrowing constructs from the mainstream entrepreneurship research. Specifically, empirical researchers addressing relationships
between EO and other variables in their work are encouraged to use the four-dimensional EO measurement scheme, for which we provide a framework.
Entrepreneurial Orientation and Business Performance: The Role of the Entrepreneur's Networking Capabilities
Creating jobs and sustainable source of income in high productivity sectors is one of the key challenges most developing countries face. Micro and small enterprises (MSEs) can generate income, employment (Sigalla and Carney, 2012; D et al., 2013; Ansari et al., 2012; Tobias et al., 2013; Alvarez and Barney, 2013), and potentially contribute to raise the living standards of individuals and households (Bennett, 2010; D et al., 2013; Kimhi, 2010; Tamvada, 2010). This transformational potential of local MSEs is an opportunity to pull out millions of people from the vicious circle of poverty. However, MSEs can play this role only if their owners are able to sustain their business over time, and if the number of MSEs grows.

To assess the performance of small firms, a growing number of studies have used entrepreneurial orientation (EO) as a construct that determines strategy-making practices (Anderson et al., 2009). In recent research, the influence of EO on performance received increased attention in business sciences (Wales et al., 2013b; Rauch et al., 2009; Lumpkin, 2011). It is assumed that EO leads to higher performance (Lee et al., 2001) and several research studies confirm the positive effect of EO on firm performance (Rauch et al., 2009). However, other studies find an insignificant relationship between the two constructs (Stam and Elfring, 2008), or even a negative effect of EO on performance. The emerging consensus from such inconsistencies in the findings is that the EO-performance relationship depends on the context in which a firm operates (Lumpkin and Dess, 1996; Covin and Lumpkin, 2011).

With regard to the external context, the linkage between EO and MSEs performance has been widely studied in mature economies such as Western Europe and Northern America (e.g., Stam and Elfring, 2008; Wiklund and Shepherd, 2003), in emerging economies such as China and India (e.g., Gupta and Batra, 2016; Tang and Tang, 2012; Zhao et al., 2011) and even in the formal sector in developing countries (e.g., Adomako et al., 2016a; Boso et al., 2013a). Nonetheless, key-knowledge gaps remain concerning the EO-performance relationship, particularly in informal economies in developing countries where MSEs operate with negligible resource and face formal institutional voids (Mair and Marti, 2009).

To address this gap, this study extends research on the influence of EO on small-firm performance to a context where firms face multiple constraints related to difficulties in accessing resources and enjoying formal institutional environments.
5.1 Introduction

Creating jobs and sustainable source of income in high productivity sectors is one of the key challenges most developing countries face. Micro and small enterprises (MSEs) can generate income, employment (Sigalla and Carney, 2012; D et al., 2013; Ansari et al., 2012; Tobias et al., 2013; Alvarez and Barney, 2013), and potentially contribute to raise the living standards of individuals and households (Bennett, 2010; D et al., 2013; Kimhi, 2010; Tamvada, 2010). This transformational potential of local MSEs is an opportunity to pull out millions of people from the vicious circle of poverty. However, MSEs can play this role only if their owners are able to sustain their business over time, and if the number of MSEs grows.

To assess the performance of small firms, a growing number of studies have used entrepreneurial orientation (EO) as a construct that determines strategy-making practices (Anderson et al., 2009). In recent research, the influence of EO on performance received increased attention in business sciences (Wales et al., 2013b; Rauch et al., 2009; Lumpkin, 2011). It is assumed that EO leads to higher performance (Lee et al., 2001) and several research studies confirm the positive effect of EO on firm performance (Rauch et al., 2009). However, other studies find an insignificant relationship between the two constructs (Stam and Elfring, 2008), or even a negative effect of EO on performance. The emerging consensus from such inconsistencies in the findings is that the EO-performance relationship depends on the context in which a firm operates (Lumpkin and Dess, 1996; Covin and Lumpkin, 2011).

With regard to the external context, the linkage between EO and MSEs’ performance has been widely studied in mature economies such as Western Europe and Northern America (e.g., Stam and Elfring, 2008; Wiklund and Shepherd, 2003), in emerging economies such as China and India (e.g., Gupta and Batra, 2016; Tang and Tang, 2012; Zhao et al., 2011) and even in the formal sector in developing countries (e.g., Adomako et al., 2016a; Boso et al., 2013a). Nonetheless, key-knowledge gaps remain concerning the EO-performance relationship, particularly in informal economies in developing countries where MSEs operate with negligible resource and face formal institutional voids (Mair and Marti, 2009).

To address this gap, this study extends research on the influence of EO on small-firm performance to a context where firms face multiple constraints related to difficulties in accessing resources and enjoying formal institutional environments.
MSEs in informal economies in developing countries face universal liabilities of newness and smallness, and an additional underdeveloped market institution that may impede their endeavours to convert EO into enterprise growth. These ventures experience a dramatic resource scarcity – in financial capital, technology, skills (Beck and Demirgue-Kunt, 2006; DeBerry-Spence and Elliot, 2012; Toledo et al., 2010) - inefficient organizational conditions (Maksimov, Wang, & Luo, 2017), limited access to lucrative markets (Word Bank, 2008), and a lower quality and legitimacy of products produced with their slack resources (Faber and Roelsema, 2001). Furthermore, the formal institutional environment that supports a market economy and facilitates economic exchanges between key actors is underdeveloped in these contexts (Mair et al., 2012).

As it might be expected, Mead and Liedholm (1998) observed lower rates of survival among MSEs operating in these settings. The high rates of failure are the outcome of a lack of growth, which is especially important to enable smaller firms to achieve economies of scale and create wealth to buffer against the liabilities related to resources and supporting institutional frameworks. Thus, growth orientation becomes a fundamental purpose of MSEs. The difficulty for these firms, however, is how they can invest in and leverage their EO to enable the growth despite the extreme resource limitation and the underdeveloped formal institutional environment. This leads to our first research question: How entrepreneurial orientation does relate to business performance?

An emerging strand of research recognizes that, while network relationships are universally important for small firms, these are more crucial for those operating in the informal sector in developing economies (Khavul et al., 2009; Khayesi et al., 2014; Viswanathan and Rosa, 2010). Relevant works in this area suggest that firms operating in these contexts have to rely on social capital, since formal resources are almost nonexistent (Zoogah et al., 2015). Social capital is needed to fill the voids left by the weak institutional environment (Webb et al., 2014). Moreover, the ability of enterprises to engage and mobilize resources embedded in their networks, facilitate the achievement of their operations and transactions as well as of their strategic objectives. In the context of resource constraints and the challenges related to the underdeveloped institutional framework, it can be expected that it is important for MSEs operating in the informal sector to benefit from the resources available within their networks that may help them to leverage EO and reap their full benefits. Hence, the second question leading this study is: To what extent and in what ways do entrepreneurial orientation and networking capability development interact in realizing business performance in small firms?

In addressing the two research questions, this chapter relies on empirical data collected from MSEs in vegetable production farmers in rural areas in Benin, a developing country in Sub-
Saharan Africa. In so doing, we make three contributions to the literature. First, we extend research about the EO-performance relationship beyond its traditional focus on mature Western economies and the formal sector in developing countries, taking a step towards extending the generalizability of this relationship in the informal sector in a developing-economy context. Second, we cast additional light on how specific entrepreneur’s networking capability influences the relationship between EO and firm performance. Finally, we offer an empirical contribution when situating our research in MSEs in the informal economy, which have fewer resources and supporting institutional frameworks as impediments that may undermine the effectivity and efficiency of EO-focused strategy.

5.2 Theory and hypotheses

5.2.1 EO and firm performance

The EO concept is rooted in strategic management research (Basso et al., 2009; Miller, 2011) and has been defined in a variety of ways in previous research (Covin and Wales, 2012). An emerging consensus is that entrepreneurship is more than simply a singular activity such as an innovative economic or social business, but is rather an overall strategic posture (Covin and Lumpkin, 2011). A succinct, encompassing and representative definition is offered by Anderson and colleagues (2009), for whom EO concerns the decision-making practices, managerial philosophies and strategic behaviours of an entrepreneurial firm. Together, these attributes of EO represent an organizing structure through which knowledge is gathered, combined and embodied in products, processes, and operational activities (Wiklund and Shepherd, 2005). Although new opportunities are systematically recognized through a continuous process of knowledge gathering, the combination process does not happen automatically, and this is where EO enters into the game (De Clercq et al., 2013).

EO enables firms to leverage knowledge by proactively seeking out new opportunities, innovatively extracting superior value, and by accepting risks to undertake new businesses. Thus, innovativeness, proactiveness and risk-taking postures become crucial to understand the manifestation of EO (Lumpkin and Dess, 1996). Innovativeness is often considered to be an important factor in supporting and encouraging new ideas or products, as well as experimentation and creativity and facilitating growth (Covin and Lumpkin, 2011; Wiklund et al., 2009). Proactiveness is rooted in people’s need to control and manipulate the environment (Bateman and
Chapter 5

Proactive firms seek to position themselves as anticipating changes in the entrepreneurial process or in the external environment and taking an active role in shaping them. In sum, the role of EO is that it enables firms to seize and pursue new opportunities.

Conceptually speaking, prior research suggests that EO should lead to higher levels of growth (Covin and Lumpkin, 2011). While it is reasonable to expect such relationship, in practice the results are mixed. A meta-analysis of 51 studies conducted by Rauch et al (2009) highlights a generally positive and moderately large ($r=.242$) correlation between EO and firm performance. However, there are some research studies in which the positive impact of EO on performance is not supported (Wiklund and Shepherd, 2005). Thus, the relationship between EO and performance is not straightforward. It is suggested that the performance implications of EO are context specific and depend on the internal resources and capabilities of the firm (García-Villaverde et al., 2013; Lundmark and Westelius, 2014), as well as on the characteristics of the external environment (Lumpkin and Dess, 2001) such as the institutional context in which firms operate.

In addressing the influence of external environment on the EO-performance relationship, researchers have drawn attention to developing and emerging (D&E) economies, as these institutional contexts question the applicability of theories originated from mature economies (Bruton et al., 2008). In contrast to emerging economies, in which the link between EO and firm performance displays a curvilinear relationship (e.g., Su et al., 2011; Tang and Tang, 2012; Wales et al., 2013b), the majority of studies conducted in contexts of small businesses operating within the formal sector in developing economies show a linear and positive EO-performance relationship (e.g., Adomako et al., 2016a; Boso et al., 2013). Despite the varied support of previous studies for the contention that EO is monotonically beneficial to the performance of small firms in the formal sector in developing countries, we believe that in the informal sector, EO may exert beneficial effects on performance of small firms only up to a specific point. Above the level of the turning point, the marginal costs of EO may increase more quickly than the marginal benefits, and therefore the performance associated will decline, _ceteris paribus._
Crant, 1993). Proactive firms seek to position themselves as anticipating changes in the entrepreneurial process or in the external environment and taking an active role in shaping them. In sum, the role of EO is that it enables firms to seize and pursue new opportunities. Conceptually speaking, prior research suggests that EO should lead to higher levels of growth (Covin and Lumpkin, 2011). While it is reasonable to expect such a relationship, in practice, the results are mixed. A meta-analysis of 51 studies conducted by Rauch et al. (2009) highlights a generally positive and moderately large (r=.242) correlation between EO and firm performance. However, there are some research studies in which the positive impact of EO on performance is not supported (Wiklund and Shepherd, 2005). Thus, the relationship between EO and performance is not straightforward. It is suggested that the performance implications of EO are context specific and depend on the internal resources and capabilities of the firm (García-Villaverde et al., 2013; Lundmark and Westelius, 2014), as well as on the characteristics of the external environment (Lumpkin and Dess, 2001) such as the institutional context in which firms operate.

In addressing the influence of the external environment on the EO-performance relationship, researchers have drawn attention to developing and emerging (D&E) economies, as these institutional contexts question the applicability of theories originated from mature economies (Bruton et al., 2008). In contrast to emerging economies, in which the link between EO and firm performance displays a curvilinear relationship (e.g., Su et al., 2011; Tang and Tang, 2012; Wales et al., 2013b), the majority of studies conducted in contexts of small businesses operating within the formal sector in developing economies show a linear and positive EO-performance relationship (e.g., Adomako et al., 2016a; Boso et al., 2013). Despite the varied support of previous studies for the contention that EO is monotonically beneficial to the performance of small firms in the formal sector in developing countries, we believe that in the informal sector, EO may exert beneficial effects on performance of small firms only up to a specific point. Above the level of the turning point, the marginal costs of EO may increase more quickly than the marginal benefits, and therefore, the performance associated will decline, ceteris paribus.

**Figure. 5.1.** Rationale for an inverse U-shaped relationship between entrepreneurial orientation and business performance in informal economies

To understand this phenomenon, we illustrate our theoretical foundations with a graph (see Figure 5.1). While the potential marginal benefits of EO linearly increase, the marginal costs tend to escalate rapidly with the adoption and implementation of higher levels of EO, resulting in an exponential cost curve. In subtracting marginal from the potential marginal benefits, we can distinguish two zones. Within the first zone, the marginal benefits outweigh the marginal costs, and the difference between them is positive. However, the second zone features the opposite phenomenon. This modification of the difference between the marginal benefits and the marginal costs predicts an inverted U-shaped relationship between EO and firm performance.

At low to moderate levels of EO, the potential marginal benefits are likely to outweigh the associated marginal costs. Immediate outcomes of implementing EO are an increase in new potential opportunities recognized by small firms (Lumpkin and Dess, 1996). The broader pool of new opportunities produced through the adoption and implementation of EO is likely to enhance a firm’s competitive capability and ultimately leads to growth. In addition, when the levels of implementations of EO are low and moderate, the processes of the search for new opportunities are less aggressive and risky (Helfat, 2007). As such, new opportunities will be fewer in number, and firms may pursue a more focused number of them. Although low in quality and quantity, the
new opportunities generated can be less speculative, less resource intensive and thus, more manageable for resource and capabilities-constrained small firms to achieve potential benefits and performance. The proper implementation of low levels of EO and the beneficial impact would be less problematic (Lumpkin and Dess, 1996) within these contexts, since firms are able to accord their resources and capabilities with the level of resources required by low and moderate EO. Furthermore, opportunities or incremental innovations generated may not require a rigorous formal institutional framework to protect them, and simple and traditional mechanisms to be developed by firms may be enough to secure these opportunities (Zoogah and Beugré, 2012). Hence, the low and moderate levels of EO may strategically fit the resources and capabilities of small firms who limit the resource expenditure by focusing on those that are potentially beneficial and require low investments.

However, at high levels of EO, the marginal costs are likely to outweigh the marginal benefits in small firms for several reasons. First, small firms with high EO tend to embrace more radical innovation, new product development and new market entry (Covin and Slevin, 1989). These processes require significant investments in resources and capabilities, which may prove challenging to sustain or fully exploit given the additional tax each effort places upon a small firm’s already thinly stretched resources. Thus, the level of resources and capabilities required to become much more serious is high, and small firms are not able to meet such requirements caused by a high level of EO. A proper implementation of EO may become problematic for firms already facing limited resources and capabilities. In order to accord with the level of EO, firms may need to engage in other activities, which will place additional costs upon them.

Second, while a high level of EO will result in small firms developing and pursuing high-value entrepreneurial opportunities, these may be compromised by the weakness of formal institutional frameworks in such a way that small firms may need a large expenditure of resources to reap the potential benefits of EO. For example, firms need to commit large additional resources to mitigate the uncertainties arising from opportunistic behaviours. Often, proactive and innovative firms need to make additional investments in time and money to resolve conflicts of property rights and contract violations due to the inefficiency of the judiciary system (De Soto, 1989, Lyon, 2000). As a result, the higher levels of EO may lead to an escalation in resources committed to support new opportunities and market initiatives. Thus, the marginal costs are likely to exceed the marginal benefits when small firms decide to adopt and implement high levels of EO in the informal sector.
Taken together, the preceding arguments suggest that the performance of EO initiatives will increase up to a certain point (turning point) and then decrease. Low and moderate levels of EO are likely to have positive performance implications, whereas higher levels of EO are likely to have a negative impact on small firm performance in informal economies in developing countries. Therefore, we propose the following hypothesis:

\textit{H1: The relationship between EO and performance will be inverse U-shaped in small firms in informal economies in developing countries.}

### 5.2.2 EO and network capability

This study further refines the outcome benefits of EO by addressing the question of whether the strategic fit of this posture is conditioned by the levels of the firm's network capability (henceforth NC). We posit that the NC will mitigate the inverse U-shape relationship between EO and performance by increasing the positive effect of low levels of EO and by reducing the negative effect of high of EO in informal economies in developing countries. In so doing, we consider the importance of the resources embedded in the network relationship and the entrepreneur's ability to gain access to various resources held by other actors (Figure 5.2).

For entrepreneurs operating within a resource-constrained environment, social capital is a relevant, productive resource comparable to financial capital and/or human resources. Indeed, the unimaginable constraints of extreme resource scarcity (Toledo-López et al., 2012), poor infrastructure (DeBerry-Spence and Elliot, 2012), unreliable support services and institutional gaps (Webb et al., 2015), make small firms in the informal sector potentially dependent on social capital to be able to function (Finkelstein, 1997; Pfeffer and Salancik, 2003). According to Zoogah et al. (2015) the institutional environment in the informal sector in developing countries often restricts firm's access to formal external resources; hence entrepreneur's social capital, derived from his or her informal network ties, can help to overcome resource constraints. For example, Viswanathan et al. (2014) argue that structural social capital in poverty settings provides critical help for entrepreneurs in the early stage of entrepreneurship to access markets through referrals. In sum, social capital serves as the organizing and transacting principle within informal economies (Webb et al., 2014), and can help entrepreneurs’ survival in their business and sustain their enterprises (Zoogah et al., 2015).

The rationale behind the social capital theory is that investments in social relations generate credibility or goodwill available to individuals and enterprises that can be accessed, mobilized and
used to achieve a number of goals, such as performance (Adler and Kwon, 2002). Accordingly, social capital creates value by endowing well-connected actors with privileged access to resources (Bourdieu, 1986), and the quality of an individual's network determines the extent to which they can gain access to credibility or goodwill (Burt, 1992; Coleman, 1988). Thus, expanding personal networks is one way to increase social capital (Baron and Markman, 2000), because building good connection does not simply happen effortlessly. Individuals and firms have to develop the skills to be able to prosper in external network settings. It is also essential for individual entrepreneurs and firms to successfully develop and utilize relationships and gain access to this resource held by other actors (Kale et al., 2002). Thus, network management represents an essential development activity for individuals and firms, because it represents competencies that allow firms to efficiently make use of social capital available within networks.

From the dynamic capabilities perspective (Teece et al., 1997), the concept that aims at capturing an individual’s or firm’s network management is network abilities or capabilities (Ferris et al., 2005; Thornton et al., 2013). A networking capability (NC) refers to a firm's ability to develop, build strong, beneficial alliances and coalitions, and make use of these relationships to gain benefits (Kale et al., 2002; Parida et al., 2017; Ferris et al., 2005). The relevance of such an ability may be high for entrepreneurial-oriented firms, particularly those operating in resource-constrained and informal economies in developing countries, where the role of social networks is vital for entrepreneurship development (Viswanathan et al., 2014; Webb et al., 2014; Zoogah et al., 2015).

Although previous studies explored the extent to which NC strengthens the influence of EO-performance relationship (Walter et al., 2006), and the moderating role of NC in increasing the optimal levels of small-firm performance in a curvilinear EO-performance relationship (Wales et al., 2013b) in a context of developed economy, we extend these works to informal economies, we expect NC to reshape the potential inverted U-shaped relationship between EO and small-firm performance in this new context.

Walter et al. (2006: 546) defined NC as “ability to initiate, maintain, and utilize relationships with various internal contacts and external partners”, and conceptualized the construct with four distinct but mutually reinforcing dimensions: coordination, relational skills, partner knowledge, and internal communication. It can be assumed that firms with a high NC can use network relationships more effectively in their ability to access and use external resources than other firms. We posit that NC plays an influential role in reducing the marginal cost and potential failures associated with the adoption and implementation of high levels of EO in the context of micro and small firms in the informal sector in developing economies.
First, NC decreases the production costs of entrepreneurial-oriented firms. A key benefit of NC comes with the complementary resources and capabilities developed together with partners. In a context where the resources are limited and the information is scarce because no data are published to help a business understand its target market, high NC improves access to a pool of complementary resources and market information. Many actors already working with the target market will have qualitative knowledge and skills to be shared. Moreover, the NC supports entrepreneurs to leverage existing logistics networks. Furthermore, NC also facilitates access to external affordable, financial, and production resources (Acquaah, 2007; Adler & Kwon, 2002; Sheng et al., 2011). For instance, firms can share the cost of extending access to financial products and services in hard-to-reach contexts. Thus, firms who have a high NC are better positioned to generate information, knowledge, and resources that are not available in an open market.

Second, NC reduces transaction costs (Williamson, 1991) for entrepreneurially oriented firms. According to Williamson’s transaction cost theory, the magnitude of the transaction costs is determined by key factors such as level of uncertainty, bounded rationality and the connectedness. With high NC, firms can develop stronger business relationships that allow for context-specific resources such as trust and solidarity. Thus, serving as a governance instrument underlying relationships between partners. Similarly, solidarity influences actors to comply with the behavioural norms of the group (Adler and Kwon, 2002). Thus, trust and solidarity are particularly advantageous, as they increase cohesiveness and reduce transaction costs that are due to opportunistic behaviour (Tsai and Ghoshal, 1998).

In sum, the ambition to deploy a high level of EO at a relatively low cost depends largely on cooperating with business and non-business partners. It is likely that network capability enables small firms not only to gain access to affordable resources necessary to engage in EO strategy, but also to synchronize with different external partners and attain mutual benefits at lower operational and transaction costs, thereby lowering the marginal costs associated with increasing levels of EO. NC is thus a fundamental construct that facilitates entrepreneurial-oriented firms to enhance their performance. Therefore, we propose the following hypothesis:

H 2: Relational skills positively moderate the inverse U-shaped relationship in such a way that (a) the inverted U-shaped relationship will be flatter in small firms with high relational skills than in small firms with low relational skills, and (b) the turning point will be shifted to higher values
**Chapter 5**

**H 3:** Partner knowledge positively moderates the inverse U-shaped relationship in such a way that (a) the inverted U-shaped relationship will be flatter in small firms with high partner knowledge than in small firms with low partner knowledge, and (b) the turning point will be shifted to higher values.

**Figure 5.2.** Conceptual framework

### 5.3 Methods

#### 5.3.1 Study context

This study represents a new context of an application within the strategic management literature, as it focuses on small businesses in an institutional context with quite specific characteristics, that distinguish it from other applications considered previously in the literature. The businesses concerned belong to the agricultural sector in informal economies in developing countries. We used a sample of agropreneurs (entrepreneurial fresh vegetable producers) in Benin (West Africa). As most of the countries in the region, Benin is an agriculture-based country. Agriculture and agribusiness together account for nearly half of GDP, and approximately 75 percent of agriculture-related firms are micro enterprises operating in the informal sector, and serving both domestic and global markets. The agribusiness sector plays a critical role in jump-starting economic transformation through the development of agro-based ventures that bring income and poverty reduction in this region (World-Bank, 2013). Despite these opportunities and the potential for growth in agribusiness, the socioeconomic conditions of producers in rural areas are characterized by low status and a significant resource scarcity. The business is dominantly informal (Zoogah et
al., 2015) and there is a paucity of institutional framework to promote economically, socially and environmentally sustainable forms of entrepreneurial business (Dia, 1996). Small agribusinesses in Benin are, therefore, a significant case example to examine how entrepreneurial orientation and network capability have supported or impeded the business performance of entrepreneurs.

This sampling context provided several advantages. First, focusing on a single business within industry limited potential confounding effects due to industry factors. Unlike general small business studies that often cover many industries and thus differ enormously in terms of regulation, institutions, guidance and support, the single sector of agribusiness provides at least some control for that. Second, due to their limited size and low structural complexity, business performance in these firms is, to a large extent, dependent on the decision-making behaviour of their owner-managers. This direct link between the individual and the firm makes it easier to investigate the relationship between the entrepreneur’s behaviours and small business success.

5.3.2 Data collection

Given that the setting of this study represents a different context, the constructs used in our model are likely to be influenced by the typical features of the new context (e.g., Viswanathan and Rosa, 2010). Some studies recommend to identify and validate measurement instruments that fit well with the new contexts before the survey (e.g., Ingenbleek et al., 2013). Following these recommendations, we conducted the data collection in two instances. We began with a pre-study to develop and validate a measurement of variables in our model, then we conducted a large survey among small agribusinesses involved in the vegetable production to test our hypotheses.

5.3.3 Pre-study

The aim of the pre-study is to overcome the limitations of etic approach -universalist tendencies- in terms of a lack a sense of contextualization, (Tatli and Özbilgin, 2012), by identifying both conceptually and empirically measures that fully capture the phenomena under investigation. This situation leads to adopting a combination of an etic approach and emic approaches - sensitive to context - by using both cross-context valid measures (etic items) and context-specific items (emic items) to collect the data for the purposes of this study. Following this approach, the items used were specifically developed following the standard process for measurement development and validation (Bagozzi et al., 1991). We began with a literature review to better understand the case
study context and to identify potential cross-context valid items. Next, a qualitative research consisted of interviews (N= 12) with experts in the sector, and focus groups (N= 3) with producers to identify specific measures. The interviews and focus group discussions were developed based on questions related to behaviours and attitudes developed to remain competitive, to achieve success, the constraints they face and the ability to overcome them, particularly the ability to network with other actors. We combined the results from the literature review and the qualitative research to develop the content of the measures for EO, NC and business performance. The measures developed were reviewed by academic and sector experts in order to validate their content. Finally, a pilot test through a small-scale survey and interview of ten small firms was conducted, and a refinement of items retained was performed prior to the large scale survey.

5.3.4 Survey

The purpose of this study is to explain the effect of EO and NC on the performance of the small business in the informal economy in developing countries. Data were collected from the owner-managers of vegetable farms through face-to-face interviews. To account for potential differences among firms the respondents were selected using a stratified sampling approach (Koenig and Shepherd, 2001). The list of all the villages in the four production regions of the study was prepared with the help of the local staff of the Ministry of Agriculture. The production areas (villages) were differentiated into two categories based on their distance to the main road. Two to five production areas were selected from each category. The respondents were selected using the following criteria: acreage under vegetable production in 2009, and trading with local, regional or international market buyers. Other factors also contributed to the selection criteria: being knowledgeable about the subject matter, and willing and able to communicate with the researcher (Campbell, 1955). The data set includes responses from 240 smallholder owner-managers.

5.3.4 Measurement and validation of constructs

The constructs used in this study are scales comprised of multiple items that have been developed from the pre-study, then validated following Bagozzi et al’s. (1991) validation process.
Chapter 5

124

study context and to identify potential context valid items. Next, a qualitative research consisted of interviews (N= 12) with experts in the sector, and focus groups (N= 3) with producers to identify specific measures. The interviews and focus group discussions were developed based on questions related to behaviours and attitudes developed to remain competitive, to achieve success, the constraints they face and the ability to overcome them, particularly the ability to network with other actors. We combined the results from the literature review and the qualitative research to develop the content of the measures for EO, NC and business performance. The measures developed were reviewed by academic and sector experts in order to validate their content. Finally, a pilot test through a small-scale survey and interview of ten small firms was conducted, and a refinement of items retained was performed prior to the large scale survey.

5.3.4 Survey

The purpose of this study is to explain the effect of EO and NC on the performance of the small business in the informal economy in developing countries. Data were collected from the owner-managers of vegetable farms through face-to-face interviews. To account for potential differences among firms the respondents were selected using a stratified sampling approach (Koenig and Shepherd, 2001). The list of all the villages in the four production regions of the study was prepared with the help of the local staff of the Ministry of Agriculture. The production areas (villages) were differentiated into two categories based on their distance to the main road. Two to five production areas were selected from each category. The respondents were selected using the following criteria: acreage under vegetable production in 2009, and trading with local, regional or international market buyers. Other factors also contributed to the selection criteria: being knowledgeable about the subject matter, and willing and able to communicate with the researcher (Campbell, 1955). The data set includes responses from 240 smallholder owner-managers.

5.3.4 Measurement and validation of constructs

The constructs used in this study are scales comprised of multiple items that have been developed from the pre-study, then validated following Bagozzi et al’s. (1991) validation process.

**Entrepreneurial orientation**

The operationalization of EO is based on three original dimensions (innovativeness, proactiveness and risk-taking) from the literature and two context-specific dimensions (collaborativeness and resource-acquisition orientation). We selected four items from the literature for each of the three original dimensions. We changed the wording in some items based on feedback from experts. We also added the context-specific items developed as inputs for the scale. As with the previously validated three dimensions, we refined and pre-tested the measures during the pre-study. All items were based on a five-point Likert scale (ranging from 1 = “Strongly disagree” to 5 = “Strongly agree”). To examine the validity of the EO measure, we conducted exploratory factor analyses (EFA) and confirmatory factor analyses (CFA), as suggested by Tang et al. (2007). First, we conducted EFA on the items with the principal component method and oblique rotation and we assessed the reliability of items. We dropped any items that loaded on multiple factors or that had low loading. Next, we assessed the dimensionality of the construct. The items retained from the EFA were reassessed using CFA. A Four-factor measurement model (excluding the factor related to risk-taking) with 15 items was retained which showed a good fit to the data (Chi-square = 165.681, df =84, p value = 0.000, CFI = 0.944, TLI = 0.930, GFI = 0.912 , RMSEA = 0.068). Finally, discriminant validity was assessed and confirmed following the validation processes of Fornell and Larcker (1981) and Henseler et al. (2015).

**Network capabilities**

Measures of NC were adapted from Walter et al. (2006) to assess small business owner-managers’ abilities to connect with external business and non-business partners. Due to the small size of firms, only the two dimensions related to external inter-organizational relationships have been retained in this study: relationship skills and partner knowledge. Five-item scales were used to measure relationship skills and partner knowledge. Each item was measured using a five-point scale (ranging from 1 = "Strongly disagree" through 5 = “Strongly agree”). The EFA revealed that each of the two dimensions of the NC load on a single factor with reasonably high loadings, ranging from 0.71 to 0.90.
Chapter 5

Performance

Consistent with prior small business research in developing economies, performance was measured by perceived indicators by asking respondents to indicate whether their expectations for their business have been met over the past three years on a five-point scale across three performance indicators, namely, growth in sales, profitability, and productivity. We used subjective measures of performance because in developing economies the owners or managers of small businesses are reluctant to disclose objective financial data during surveys (Alegre and Chiva, 2013; Tang et al., 2012). In addition, perceptual performance measures have been shown to be valid, reliable and effective because the owner’s or manager's perception of the firms’ performance outcomes ultimately shapes their strategic decision making and managerial action (Alegre and Chiva, 2013).

Control variables

In line with the literature, the variation in the performance of small firms can also potentially be explained by several exogenous variables (e.g., Adomako et al., 2016b; Anderson and Eshima, 2013; Wang, 2008; Wiklund and Shepherd, 2005; Yiu et al., 2007). In order to account for these external factors, our study includes relevant control variables that may influence the research model: business size, business age, education level of owner-manager (e.g. Delmar 1997) and access to reliable financial resources and markets (Becchetti and Trovato, 2002; Toledo et al., 2010), have been found to influence firm growth. The owner-manager’s age was included to control for the potential increase in experience affecting the business growth. In addition, the study controlled for gender given that venture size differs between male and female entrepreneurs, with women generally involved in lower growth and small-scale businesses (Cassar, 2006). We used the farm size as a proxy for business size. We measured small-business experience and age as the number of years the small business has been in operation. Various types of training help the owner-managers to enhance business performance. Those who have received formal education are more likely to have better capabilities in searching and processing information. We measured education level with a five point scale (1 = no education, 2 = primary school, 3 = middle school, 4 = high school, 5 = university level). Small-business access to financial resources was measured with indicators that assess whether owner-managers had received financial support during the last five years previous to the interviews. The access to market was controlled by using four items developed during the pre-study. All items of access to resources and markets were based on a five-point Likert scale (ranging from 1 = "Strongly disagree" to 5 = "Strongly agree").
5.4 Results
Table 5.1 summarizes the descriptive statistics and correlations of all variables in our models. Hierarchical ordinary least squares (OLS) regression analysis was used to test the research hypotheses. Table 5.2 lists the regression results for all models. The fit statistics reported at the bottom of Table 5.2 indicate the joint significance of the variables in the empirical models, and suggest that the fitted models have explanatory power. Finally, the multicollinearity condition index ranging from 13.73 to 13.94 is within limits and does not raise concerns about the presence of multicollinearity (Greene, 2003). First, we entered the control variables in model 1 and found that some of the control variables, age, access to finance and access to market, have a positive influence on business performance. Other control variables, such as gender, education and business size, do not significantly impact business performance.

Next, we added the main effects in model 2. These include the linear term, the quadratic term of EO (EO-squared) to test for the proposed inverted U-shaped relationships between EO and business performance and the dimensions of network capability. We found a positive relationship between EO and business performance in model 2 ($\beta = 0.62, p < 0.01$), and a strong support for Hypothesis 1, which predicted an inverse U-shaped relationship between EO and business performance. In general, an inverted U-shaped hypothesis is examined using the significance levels for the squared term of the variable of interest. A negative and significant coefficient would demonstrate an inverted U-shaped relationship. The results of the regression in model 2 support an inverted U-shaped relationship ($\beta = -0.198, p < 0.01$). Together EO, EO-squared and the dimensions of NC explain additional variance in business performance ($\Delta R^2$-squared adjusted = 0.60) as compared to model 1.

Finally, in model 3, we included the interactions of the dimensions of NC with EO and EO-squared to test the hypotheses 2 and 3, which proposed that the dimensions of network capability positively moderate the curvilinear relationship between EO and business performance in such a way that (a) the inverted U-shaped relationship will be flatter in small firms with high NC than in small businesses with low NC, and (b) the turning point will be shifted to higher values (that is, to the right side). Organizational research has examined the flattening effect using significant levels of the coefficient of the interaction between the squared term of the variable of interest (EO squared) and the moderator. Specifically, when this coefficient is positive and significant, the flattening of inverted U-shaped occurs. Our findings offer support for the flattening effect of relational skills ($\beta = 0.59, p < 0.01$) on nonlinear effects of EO. However, we did not find that partner knowledge has a significant flattening effect on the inverted U-shaped relationship.
### Chapter 5

#### Table 5.1. Correlation Matrix

<table>
<thead>
<tr>
<th>Construct</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>1.00</td>
<td>-0.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>0.00</td>
<td>0.435*</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td>0.00</td>
<td>0.07</td>
<td>0.357*</td>
<td>-0.05</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business size</td>
<td>0.161*</td>
<td>0.12</td>
<td>0.168*</td>
<td>0.257*</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EO</td>
<td>-0.02</td>
<td>0.04</td>
<td>0.06</td>
<td>-0.01</td>
<td>0.154*</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relational skills</td>
<td>0.01</td>
<td>-0.05</td>
<td>-0.04</td>
<td>-0.03</td>
<td>0.175*</td>
<td>0.619*</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner knowledge</td>
<td>0.10</td>
<td>0.10</td>
<td>0.06</td>
<td>0.05</td>
<td>0.144*</td>
<td>0.10</td>
<td>-0.11</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to finance</td>
<td>0.00</td>
<td>-0.05</td>
<td>0.04</td>
<td>0.11</td>
<td>0.219*</td>
<td>0.418*</td>
<td>0.381*</td>
<td>0.248*</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to market</td>
<td>0.09</td>
<td>-0.08</td>
<td>-0.01</td>
<td>0.00</td>
<td>0.07</td>
<td>0.291*</td>
<td>0.165*</td>
<td>-0.03</td>
<td>0.387*</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Performance</td>
<td>-0.007</td>
<td>0.057</td>
<td>0.054</td>
<td>-0.068</td>
<td>0.099</td>
<td>0.857*</td>
<td>0.578*</td>
<td>0.101</td>
<td>0.346*</td>
<td>0.257*</td>
<td>1.00</td>
</tr>
</tbody>
</table>

#### Table 5.2. Results of Hierarchical Regression with Business performance as dependent Variable

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-0.025</td>
<td>0.004</td>
<td>0.024</td>
</tr>
<tr>
<td>Age</td>
<td>0.004*</td>
<td>0.002</td>
<td>0.002</td>
</tr>
<tr>
<td>Education</td>
<td>0.013</td>
<td>-0.001</td>
<td>0.002</td>
</tr>
<tr>
<td>Experience</td>
<td>-0.008**</td>
<td>-0.004*</td>
<td>-0.004**</td>
</tr>
<tr>
<td>Business size</td>
<td>0.020</td>
<td>-0.012</td>
<td>-0.005</td>
</tr>
<tr>
<td>Main Effects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EO</td>
<td>0.593***</td>
<td>0.685***</td>
<td></td>
</tr>
<tr>
<td>EO_squared (H1)</td>
<td>-0.190***</td>
<td>-0.298***</td>
<td></td>
</tr>
<tr>
<td>Relational skills</td>
<td>-0.050</td>
<td>-0.128***</td>
<td></td>
</tr>
<tr>
<td>Partner knowledge</td>
<td>0.008</td>
<td>-0.007</td>
<td></td>
</tr>
<tr>
<td>Moderation effects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EO x Relational skills</td>
<td>0.087</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EO_squared x Relational skills (H2)</td>
<td>0.621***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EO x partner knowledge</td>
<td>0.039</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EO_squared x Partner knowledge (H3)</td>
<td>0.021</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-0.136</td>
<td>0.023</td>
<td>0.011</td>
</tr>
<tr>
<td>F</td>
<td>5.78</td>
<td>55.27</td>
<td>45.44</td>
</tr>
<tr>
<td>R-Squared</td>
<td>0.17</td>
<td>0.76</td>
<td>0.78</td>
</tr>
<tr>
<td>Adjusted R-Squared</td>
<td>0.140</td>
<td>0.742</td>
<td>0.780</td>
</tr>
<tr>
<td>Multicollinearity</td>
<td>13.73</td>
<td>13.94</td>
<td>13.94</td>
</tr>
</tbody>
</table>

Note: standardized coefficients are reported

*P<.1

**P<.05

***P<.01
Table 5.2. Results of Hierarchical Regression with Business performance as dependent Variable

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Controls</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-0.025</td>
<td>0.004</td>
<td>0.024</td>
</tr>
<tr>
<td>Age</td>
<td>0.004*</td>
<td>0.002</td>
<td>0.002</td>
</tr>
<tr>
<td>Education</td>
<td>0.013</td>
<td>-0.001</td>
<td>0.002</td>
</tr>
<tr>
<td>Experience</td>
<td>-0.008**</td>
<td>-0.004*</td>
<td>-0.004**</td>
</tr>
<tr>
<td>Business size</td>
<td>0.020</td>
<td>-0.012</td>
<td>-0.005</td>
</tr>
<tr>
<td>Access to finance</td>
<td>0.157***</td>
<td>0.001</td>
<td>0.005</td>
</tr>
<tr>
<td>Access to market</td>
<td>0.123**</td>
<td>0.014</td>
<td>0.031</td>
</tr>
<tr>
<td><strong>Main Effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EO</td>
<td>0.593***</td>
<td>0.685***</td>
<td></td>
</tr>
<tr>
<td>EO_squared (H1)</td>
<td>-0.190***</td>
<td>-0.298***</td>
<td></td>
</tr>
<tr>
<td>Relational skills</td>
<td>-0.050</td>
<td>-0.128***</td>
<td></td>
</tr>
<tr>
<td>Partner knowledge</td>
<td>0.008</td>
<td>-0.007</td>
<td></td>
</tr>
<tr>
<td><strong>Moderation effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EO x Relational skills</td>
<td>0.087</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EO_squared x Relational skills (H2)</td>
<td></td>
<td>0.621***</td>
<td></td>
</tr>
<tr>
<td>EO x partner knowledge</td>
<td>0.039</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EO_squared x Partner knowledge (H3)</td>
<td>0.021</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>-0.136</td>
<td>0.023</td>
<td>0.011</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>5.78</td>
<td>55.27</td>
<td>45.44</td>
</tr>
<tr>
<td><strong>R-Squared</strong></td>
<td>0.17</td>
<td>0.76</td>
<td>0.78</td>
</tr>
<tr>
<td><strong>Adjusted R-Squared</strong></td>
<td>0.140</td>
<td>0.742</td>
<td>0.780</td>
</tr>
<tr>
<td><strong>Multicollinearity Condition Number</strong></td>
<td>13.73</td>
<td>13.94</td>
<td>13.94</td>
</tr>
</tbody>
</table>

Note: standardized coefficients are reported
*P<.1
**P<.05
***P<.01

5.4.1 Robustness checks the inverted U-shaped relationships

Figure 5.3 displays the plot depicting the influence of EO on business performance. In order to verify the robustness of our findings regarding the inverted U-shaped relationship between EO and business performance, we performed several robustness tests (Blanchflower, 2007; Lind and Mehlum, 2009). We began with the regression equation used in model 3 for the inverted U-shaped relationship between EO and performance (equation 1)

\[
\text{Business Performance} = \beta_0 + \beta_1 EO + \beta_2 EO^2 \quad (1)
\]
Next, as found in model 2, a significant and negative $\beta_2$ indicates an inverted U-shaped relationship. Although necessary, this condition alone is not sufficient (Lind and Mehlum (2010)). Additional step procedures are needed to confirm the quadratic relationship. First, the turning point ($\frac{-\beta_1}{2\beta_2}$), obtained by taking the first derivation of Equation 1 and setting it to zero, needs to be located well within the data range. Second, the slope at the low end ($\frac{-\beta_1}{2\beta_2} \times EO_{low}$) of the data range of independent variable must be positive and significant, and the slope at the high end ($\frac{-\beta_1}{2\beta_2} \times EO_{high}$) must be negative and significant.

The results of all these checking displays in Table 5.3 provide additional confidence in the robustness of the inverted U-shaped relationship between EO and business performance.

![Figure 5.3](image_url)

**Figure 5.3.** The plot of the inverted U-shaped relationship between EO and business performance.
Next, as found in model 2, a significant and negative \( \beta \) indicates an inverted U-shaped relationship. Although necessary, this condition alone is not sufficient (Lind and Mehlum (2010). Additional step procedures are needed to confirm the quadratic relationship. First, the turning point \((-\frac{\beta_1}{2\beta_2})\), obtained by taking the first derivation of Equation 1 and setting it to zero, needs to be located well within the data range. Second, the slope at the low end \((-\frac{\beta_1}{2} + \beta_2\text{EO}_\text{L})\) of the data range of independent variable must be positive and significant, and the slope at the high end \((-\frac{\beta_1}{2} + \beta_2\text{EO}_\text{H})\) must be negative and significant. The results of all these checking displays in Table 5.3 provide additional confidence in the robustness of the inverted U-shaped relationship between EO and business performance.

### Table 5.3. Slopes at the end of data range data range

<table>
<thead>
<tr>
<th>Test description</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slope at the high end of data range ((\beta_1 + 2\beta_2\text{EO}_\text{H}))</td>
<td>0.62 (0.977)****</td>
</tr>
<tr>
<td>Slope at the low end of data range ((\beta_1 + 2\beta_2\text{EO}_\text{L}))</td>
<td>-0.37 (10.26)****</td>
</tr>
<tr>
<td>Estimated turning point ((-\frac{\beta_1}{2\beta_2}))</td>
<td>1.56</td>
</tr>
</tbody>
</table>

Note: \(\text{EO}_\text{L}\) and \(\text{EO}_\text{H}\) represent the EO at the low and high end of data range.

Robust Standard errors in parentheses, and *** denotes the significance at the 1% level.

#### 5.4.2 Magnitude of the moderating effect of NC on the inverted U-shaped relationship

To understand the nature of the interactions, many studies followed the graphing method outlined by Cohen et al. (2003) to form the figures to illustrate the moderating effects. However, recently, Haans et al. (2015) have questioned whether this approach of graphical representation commonly used to test the magnitude of the moderating effect is sufficient. According to these authors, although the plot approach comes along with an illustration, it doesn’t represent a formal test. Thus, in this study, in order to formally test whether a shift in turning point occurs and to provide more insights, a robust check was performed. We based this check on equation 2 which integrates the NC as moderator of the inverted U-shaped.

**Business Performance** = \(\beta_0 + \beta_1\text{EO} + \beta_2\text{EO}^2 + \beta_3\text{EOxNC} + \beta_4\text{EO}^2\text{NC} + \beta_5\text{NC}\) (2)

\[
\frac{d(\text{Business Performance})}{d(\text{EO})} = \beta_1 + \beta_3\text{NC} + 2\beta_4\text{EO} + \beta_5\text{NC} \quad (3)
\]

\[
\text{EO}^* = -\frac{\beta_1 - \beta_3\text{NC}}{2(\beta_2 + \beta_4\text{NC})} \quad (4)
\]

\[
\frac{d\text{EO}^*}{d\text{NC}} = \frac{\beta_4\beta_5 - \beta_3\beta_4}{2(\beta_2 + \beta_4\text{NC})^2} \quad (5)
\]

We took the first derivation of business performance with respect to EO (equation 3). The turning point \(\text{EO}^*\) obtained by setting it to zero for the first derivation, now depends on the moderator (see equation 4). The derivative of this turning point with regard to NC illustrates how the turning point shift occurs. As the denominator is strictly greater than zero, the direction of shift depends...
on the sign of the numerator ($\beta_4 - \beta_3$). The results of all these checks are summarized in Table 5.3 and provide robust support for hypothesis 2b.

5.5 Discussion and Conclusion

The purpose of this study is to examine the relationship between entrepreneurial orientation and business performance, and whether the network capability of small firms operating in the informal sector in a developing economy can reduce the costs related to EO, and thus enhance the business performance. The results of the analysis have some interesting implications for the understanding of small-business development within a specific context of the informal sector.

First, unlike previous research conducted in developing economies which suggested a linear and positive effect of EO on performance (e.g., Adomako et al., 2016b; Boso et al., 2013; Roxas et al., 2016), our study finds that it is rather an inverted U-shaped linkage in small firms operating in the informal sector in a developing economy. For small businesses, our results suggest that increasing levels of EO appear beneficial up to a given point, after which positive returns cease and business performance begins to decline. Hence, EO cannot be increased indefinitely as a means of enhancing the business performance of small firms within the informal sector. Prior research conducted in emerging and developed economies has uncovered a potential curvilinear relationship between EO and performance, and two reasons were used to explain this phenomenon. On the one hand, in the context of emerging economies (e.g., China and India), the curvilinear relationship between EO and performance is suggested to be a result of institutional environment constraints (Tang et al., 2008) that firms face and the size-related liabilities (Su et al., 2011). On the other hand, in developed economies, the newness liabilities are put forward to explain the inverted U-shaped relationship between EO and performance (Wales et al., 2013b). Although these previous research results have generated significant insights into the curvilinear EO–performance linkage, they are all based on single-burden settings; no research has examined this relationship with small businesses in developing economies that often experience multiple burdens.

Overall, through the integration of resource scarcity and institutional environment constraints, this paper deepens our understanding, and provides a more comprehensive picture of the relationship between EO and business performance of small businesses operating within this particular context. The implication, therefore, is that only low and moderate levels of the entrepreneurial orientation of small firms facing this situation can enhance business performance
in developing economy settings. While stronger EO is crucial for increasing the potential benefits, it also carries the risk of inflation in costs necessary to reap the full performance created. That is, the positive influence of EO on business performance does not hold indefinitely (it reaches a maximum level and then declines). This new insight implies that by failing to account for a negative influence of high levels of EO for business performance in a context of both resource scarcity and weak institutional environment, studies may research a premature or perhaps overly optimistic view of the EO-business performance relationship when firms report high levels of EO.

Second, the results also reveal that social processes outside the firm, in the form of the network capability, further maximize the business by flattening and shifting the turning point of the inverted U-shaped to higher levels. Thus, the optimal level of EO appears to vary as a function of small-business network capability. As a result, exclusive reliance on entrepreneurial orientation may not be sufficient for business success. This finding suggests that the level of EO must be managed based upon the actual level of networking capability of the firm. This novel contribution to the strategic-orientation literature by the current study indicates that the ability to develop and make use of external relationships increases the benefits that small businesses are able to reap from the effort of implementing higher levels of EO in the informal sector in a developing economy. Hence, these results offer interesting extensions to the work on the role of relational skills for small firms experiencing newness liabilities (Lans et al., 2015). As stated in the section on theory, it is unlikely that the access to structural and relational social capital may happen spontaneously, firms may need to build and develop them. The results from our research further develop and add credence to the previous findings on the critical role of relational skills in the early stage of entrepreneurial process firms (Kreiser et al., 2013; Baron and Markman, 2000; Lans et al., 2015), in established firms (Baron and Markman, 2000; Walter et al., 2006), and particularly for small businesses operating with limited resources in resource-poor and weak institutional settings, by showing that the network skills facilitate the effect of EO on business performance.

The study’s findings have practical implications which generate actionable insights for small-business managers with limited resources, operating within a weak institutional environment. It would be reasonable for owners and managers to recognize that, while being entrepreneurial and trying to anticipate the future needs of the markets is important to remain competitive, they should wisely adopt an integrative approach by also developing and cultivating relationships with people external to their small enterprises. This insight is particularly important to learn, develop and exploit the network capability to enable firms to capture the full performance created by investing in entrepreneurial orientation.
There are policy implications too. Governments, development agencies and social ventures are increasingly engaged in the development of the small-business sector in developing countries. This study suggests that network capability, and particularly the relational skills are important in translating entrepreneurial-orientation strategy into higher growth. This is because entrepreneurs with sound relational skills are more able to evaluate and select better connections that can facilitate access to affordable resources and bypass the constraints left by the weak institutional environment. Therefore, policy makers in developing countries may wish to pay greater attention to not only focus on activities or interventions that improve the entrepreneurial orientation of small firms, but also focus on developing their network capability.

5.6 Limitations and directions for future research

Besides significant contributions and implications, this study also has some limitations. First, the results of our study are based on a case pertaining to the agricultural sector. It will be important to explore whether other sectors in developing economies show similar patterns. Second, the cross-sectional data used in the study may discount any causal statements being supported by empirical findings. Thus, a longitudinal approach is required in future studies. Future research should also continue to investigate the means through which small firms in developing economies may facilitate higher levels of EO. For instance, specific types of resources or additional capabilities that serve to influence the turning point of the inverted U-shaped relationship between EO and business performance.
There are policy implications too. Governments, development agencies and social ventures are increasingly engaged in the development of the small-business sector in developing countries. This study suggests that network capability, and particularly the relational skills are important in translating entrepreneurial-orientation strategy into higher growth. This is because entrepreneurs with sound relational skills are more able to evaluate and select better connections that can facilitate access to affordable resources and bypass the constraints left by the weak institutional environment. Therefore, policy makers in developing countries may wish to pay greater attention to not only focus on activities or interventions that improve the entrepreneurial orientation of small firms, but also focus on developing their network capability.

5.6 Limitations and directions for future research

Besides significant contributions and implications, this study also has some limitations. First, the results of our study are based on a case pertaining to the agricultural sector. It will be important to explore whether other sectors in developing economies show similar patterns. Second, the cross-sectional data used in the study may discount any causal statements being supported by empirical findings. Thus, a longitudinal approach is required in future studies. Future research should also continue to investigate the means through which small firms in developing economies may facilitate higher levels of EO. For instance, specific types of resources or additional capabilities that serve to influence the turning point of the inverted U-shaped relationship between EO and business performance.
Locally-driven entrepreneurship is a powerful tool to lift poor people out of poverty at the Base of the Pyramid (BoP) (Nichter and Goldmark, 2009; Mano et al., 2012; Grimm et al., 2012; Amin and Islam, 2015; Li and Rama, 2015). Local entrepreneurs are not only able to create economic value for themselves, but also to provide economic and social value for the community at large, raising millions of people out of extreme poverty (Kimhi, 2010; Tamvada, 2010; Bruton et al., 2013b; Ayyagari et al., 2014). In addition to the recognition of this importance of local entrepreneurship for poverty alleviation, studies provided evidence that entrepreneurial traits and skills are strongly related to business setup and success. The access to production and transition resources is also important for business development. Guided by the evidence from various studies, external parties, such as development actors of governmental or nongovernmental organizations, have provided small-scale enterprises with training, counseling, access to microfinance and access to markets to foster and strengthen local ventures (Cho and Honorati, 2014). However, the literature on development-oriented entrepreneurship leaves open important questions surrounding the underlying dynamics of bottom-up entrepreneurship in developing countries (e.g., Kiss et al., 2012; Webb et al., 2013; Bruton et al., 2013b), as well as the strategic orientations local entrepreneurs take to cope with challenges, develop their businesses and grow.

To contribute to the field of development-oriented entrepreneurship, this thesis explored the bottom-up process by which small enterprises in BoP settings create value and innovate, which was seen as underlying the development of small-scale entrepreneurship behind the scenes. The following research objective was formulated:

Unveil and improve the understanding of the entrepreneurial process in poverty settings and the strategic orientations that have been developed to be effective.

This thesis focused on the case of smallholder farmers who have started and integrated vegetables production activities into their farms, thereby generating new sources of income, and established agribusiness as an activity that goes beyond traditional staple food production. The development of agribusiness activities by these smallholder farmers represents a shift from the specialized economic activities such as handicrafts, fishing, hunting, gathering and the primary agricultural production of conventional staple crops for subsistence, towards the diversification of high-value crops such as fruits and vegetables.
6.1 Introduction

Locally-driven entrepreneurship is a powerful tool to lift poor people out of poverty at the Base of the Pyramid (BoP) (Nichter and Goldmark, 2009; Mano et al., 2012; Grimm et al., 2012; Amin and Islam, 2015; Li and Rama, 2015). Local entrepreneurs are not only able to create economic value for themselves, but also to provide economic and social value for the community at large, raising millions of people out of extreme poverty (Kimhi, 2010; Tamvada, 2010; Bruton et al., 2013b; Ayyagari et al., 2014). In addition to the recognition of this importance of local entrepreneurship for poverty alleviation, studies provided evidence that entrepreneurial traits and skills are strongly related to business setup and success. The access to production and transition resources is also important for business development. Guided by the evidence from various studies, external parties, such as development actors of governmental or nongovernmental organizations, have provided small-scale enterprises with training, counseling, access to micro finance and access to markets to foster and strengthen local ventures (Cho and Honorati, 2014). However, the literature on development-oriented entrepreneurship leaves open important questions surrounding the underlying dynamics of bottom-up entrepreneurship in developing countries (e.g., Kiss et al., 2012; Webb et al., 2013; Bruton et al., 2013b), as well as the strategic orientations local entrepreneurs take to cope with challenges, develop their businesses and grow.

To contribute to the field of development-oriented entrepreneurship, this thesis explored the bottom-up process by which small enterprises in BoP settings create value and innovate, which was seen as underlying the development of small-scale entrepreneurship behind the scenes. The following research objective was formulated:

*Unveil and improve the understanding of the entrepreneurial process in poverty settings and the strategic orientations that have been developed to be effective.*

This thesis focused on the case of smallholder farmers who have started and integrated vegetables production activities into their farms, thereby generated new sources of income, and established agribusiness as an activity that goes beyond traditional staple food production. The development of agribusiness activities by these smallholder farmers represents a shift from the specialized economic activities such as handicrafts, fishing, hunting, gathering and the primary agricultural production of conventional staple crops for subsistence, towards the diversification of high-value crops such as fruits and vegetables.
In the following section, the main findings and conclusions will be briefly presented by answering the different research questions. In the subsequent section, the main theoretical contribution of this thesis is discussed in the light of the contributions to the literature. Next, we continue with the implications of the present study. This chapter ends with limitations, and avenues for future research.

6.2 Main findings and conclusions
Chapter 2 primarily aims to understand the dynamics under which poor people develop their entrepreneurial businesses, by addressing the following research question:

**Research Question 1:** How does the entrepreneurial process unfold and what are the main stages of this process?

Guided by a multi-layered conceptualisation which transcends individual agent and structural-level analyses of entrepreneurship, chapter 2 brought the model of the entrepreneurial action of small businesses to light and revealed that three subprocesses are driving the development of entrepreneurship in BoP. First, it highlights that entrepreneurial action often emerges from challenging situations and disruptive events experienced by individuals. Second, the relationship between these triggers and entrepreneurial action development is contingent upon individual factors: personal motivations and the willingness to structure uncertainty. Finally, to pursue the entrepreneurial action initiated, the adaptation to resource-scarce conditions and the ability for networking are crucial factors that enable the creation of entrepreneurial value.

**Research Question 2:** How does entrepreneurial orientation as a strategic practice and critical element of the entrepreneurial process of small firms manifest itself in BoP?

By exploring the entrepreneurial process in the BoP context, chapter 2 suggested that micro processes such as networking capability and strategic orientation were important for entrepreneurial opportunity exploitation. The strategic-orientation factor was further studied in chapter 3 by focusing on the practices of the entrepreneurial orientation of agropreneurs. To answer research question 2, chapter 3 inductively examined the behavioural patterns of agropreneurs. This chapter brought new insights to the entrepreneurial orientation (EO) of small firms operating within the BoP, by showing that three traditional dimensions – innovativeness, proactiveness, and risk taking – are necessary but not sufficient to capture the manifestation of EO. The chapter further observed that two new context-specific dimensions emerged: resource-acquisition capability and collaborative orientation. Finally, chapter 3 offered a conceptual definition of the construct of EO of small firms at the BoP based on the five dimensions revealed...
(encompassing innovativeness, proactiveness, resource-acquisition orientation, collaborativeness and risk taking). An entrepreneurial-oriented firm uses innovativeness as a general innovation orientation, and adopts existing innovations that might improve business performance. An entrepreneurial oriented small firm acts in a more problem-focused way and searches proactively for new information while remaining largely open to the external environment. A small firm is more motivated to engage in resource acquisition to lift businesses out of stagnation and engage in growth processes. An entrepreneurial oriented firm develops relationships and communications with actors to fill the limited resources available. This is not to say that an entrepreneurial oriented firm will not be concerned with competition.

**Research Question 3:** How can the manifestation of the entrepreneurial orientation of entrepreneurs be measured?

Chapter 4 described the development of a clear, specific measurement of the EO and its dimensions identified in chapter 3, by examining the reliability, convergent validity and discriminant validity of the dimensions of entrepreneurial orientation and the proper measurement model of the construct. Data obtained from a survey in the agropreneurship sector provided support for convergent and discriminant validity of four, rather than five, EO dimensions in addition to the more general characteristics of innovativeness and proactiveness. The context-specific dimensions knowledge acquisition and collaborative behaviour should be present for a firm to be entrepreneurial oriented at the BoP level. Both second-order reflective and second-order formative specifications are suitable measurement models for the construct.

**Research Question 4:** How do entrepreneurial orientation and networking capabilities interact in realizing business performance in small firms?

Based on the contextualized measurement scales developed in chapter 4, Chapter 5 revealed a complex and two-sided relationship between EO and business performance. The chapter demonstrated an inverted U-shaped relationship between EO and business performance. The findings suggested that increasing levels of EO appear beneficial up to a point, after which positive returns cease, and business performance begins to decline. Hence, EO cannot be increased indefinitely as a means of enhancing the business performance of small firms within the informal sector. The chapter further showed that the social processes outside the firm, in the form of network capability development, further maximize the business by flattening and shifting the turning point of the inverted U-shaped to higher levels.
In short, the key message of this thesis is two-fold. First, the enactment of the locally-driven entrepreneurship at the BoP level and the process of entrepreneurial action that appears to challenge conventional entrepreneurial models. Second, because of the severe constraints related to resource scarcity, poor infrastructure, unreliable support services and formal institutional gaps, EO as well as connecting with various parties are of particular importance to the outcome of the locally driven entrepreneurial process at the BoP. With respect to connecting with external parties: the social processes outside the firm, in the form of the networking capability, reduces the severe constraints and thus improves the performance of the firm. With respect to EO: On the small business level, stronger EO is critical to increasing the potential benefits. However, it also carries the risk of inflation in costs necessary to reap the full performance created. Increasing EO in tandem with networking promotes the success of BoP entrepreneurial process.

6.3 Research findings in a broader perspective
This section articulates how the four empirical studies summarized above contribute to the two research problems identified in the general introduction (chapter 1) of this thesis. The conclusions are discussed in relation to the broader scientific debate by focusing on several cross-cutting issues. These issues relate to three areas in current scientific literature: the kind of entrepreneurship at the BoP, the manifestation of EO, and entrepreneurial performance. In this section, the main findings of this thesis summarized above are discussed in the light of these issues.

The BoP entrepreneurship
This thesis contributes to a more grounded positioning of BoP entrepreneurship in scientific literature by theorizing this type of entrepreneurship. This proposition is based on the following line of reasoning. One of the key assumptions in this thesis is that existing small businesses at the BoP in D&E economies provide an interesting context for studying entrepreneurial processes, because these processes may unfold differently from the types of entrepreneurial processes known in Western contexts.

Some scholars question this assumption by stating that micro and small firm owner-managers in D&E economies are clearly different from true entrepreneurship due to their focus on survival, small size and low productive businesses (Mead and Liedholm, 1998; Tybout, 2000). As Shane (2009: 143) puts it "...if you want to find countries where there are a lot of entrepreneurs, go to Africa or South America". Most of the enterprises are oriented on subsistence and offer little
in terms of the potential to significantly improve economic performance of the owner-managers (Bruton et al., 2015b). We disagree with regard to the concepts such as push and pull, necessity and opportunity entrepreneurship, used in some studies to justify BoP entrepreneurship as inferior. These are descriptors, and it is wrong to ascribe causality to them with regard to the nature of locally-driven businesses. Consequently, BoP enterprises have been wrongly construed as marginal small businesses with no entrepreneurial future. Although their nature does affect size and growth, BoP enterprises are entrepreneurial. When viewed through their dynamics, these businesses are a different form of entrepreneurship. Unfortunately, the small business literature does not really support the scientific debate on their entrepreneurial processes. Until recently, work on entrepreneurship phenomenon in D&E economies has been predominantly focusing on the ‘what question’ – factors that hinder or enable entrepreneurship. Literature mainly focuses on the unfavourable individual level difficulties (e.g., Bloom et al., 2010; Brahn and Zia, 2011; Mano et al., 2012) and environmental circumstances (DeBerry-Spence, 2010; DeBerry-Spence and Elliot, 2012; Fafchamps, 1997; Henriques and Herr, 2007; Khavul et al., 2009; London et al., 2010; Mead and Liedholm, 1998) surrounding entrepreneurship within this context.

This thesis contributes to entrepreneurship theory (e.g., Morrison, 2000; Morrison et al., 2003; Adekunle, 2008) in settings of poverty in D&E economies by starting to elaborate on the ‘how and why question’ to guide the subsequent question on the ‘what’. It unveils how poor people develop their entrepreneurial activities by providing the trigger path and a three-stage model of the entrepreneurship process at the BoP. The thesis offers new theoretical ground on the emergence of entrepreneurial actions, and unpacks each phase of the process and intervening dimensions, highlighting which characteristics are most relevant in determining the shift from one phase to the next.

The thesis also adds to the entrepreneurship literature by suggesting a more complicated path to entrepreneurial actions. In his attempt to synthesize the elements and facets of entrepreneurship, Anderson (2000) depicted a process which combines self and circumstances. The entrepreneurial process is viewed as the creation or extraction of value from the environment. The background of the entrepreneur (abilities, competencies, knowledge and soft personal characteristics) configures the process. Our thesis points to two refinements of this general model. A key point appears to be that looking only at the entrepreneurial event such as the creation of a new business and personal background that shapes the process, is too limited. The micro processes such as the circumstances or contexts within which individuals are embedded in are important as well to understand the emergence of entrepreneurial action. This includes the individual willingness...
to transform uncertainty into structured uncertainty by moving from a situation where there are too few alternatives available to one in which there are many (Weick, 1995). In this regard, the thesis provides a comprehensive picture of the path to entrepreneurial actions at the interplay of challenging circumstances, disruptive events that may have threatened the way of life of individuals, and the willingness to structure the uncertainty.

**Manifestation of EO**

Another way in which our study adds to previous research is by shedding light on the contextualized practices of the EO of resource-constrained small firms operating within the BoP. So far, entrepreneurship and strategic management literature (e.g., Boso et al., 2013a; Boso et al., 2013b; Ibeh, 2003; Okpara, 2009; Alarape, 2013), have gradually entered the theoretical debate on EO in the study of small business and entrepreneurship relying on Miller's (1983) conceptualization. Nevertheless, current strategic management literature on small firms operating from D&E economies does not really provide a starting point for contextualizing this entrepreneurial behaviour which is context dependent (Welter and Smallbone, 2011). It seems to be unattractive for researchers because "theorizing context" implies that researchers must challenge their well-known and preferred research paradigms and concepts (Welter, 2011; Zahra and Wright, 2011). A theoretical contextualization can assist in framing adequate research questions and designs, to obtain a full picture of a phenomenon. This thesis extends the generalization of EO to the new contexts of BoP in developing countries by contextualizing the construct. We are in agreement with previous research that has found that innovativeness and proactiveness are critical dimensions of EO construct (Lumpkin and Dess, 1996; Miller, 1983). We would point out, however, that two other context-specific dimensions – knowledge-acquisition orientation and collaborativeness - must be present for a firm to be entrepreneurial in the settings of poverty in D&E economies.

**Business performance**

A third way in which our thesis contributes to entrepreneurship literature is by providing insights into the relationship between EO and business performance. The results of the quantitative survey study presented in chapter 5 suggested that the relationship between EO and business performance is an inverted U-shaped model. The majority of the previous research conducted in D&E economies has modeled the relationship between the two variables as linear, while our model considers a quadratic regression. The results of this study suggest that in only reporting on the linear term in the modelling of EO-performance relationships in a context of resource limitations
inherent in firms operating in a resource-constrained and weak institutional environment, does not display the full picture of the relationship between EO and business performance. Furthermore, by providing insights into the role of entrepreneur's networking capabilities for business performance, this thesis contributes by recognizing that entrepreneurial small firms should adopt an integrative approach by also developing and cultivating relationships with people external to their small enterprises. This insight is particularly important in order to learn, develop and exploit network capabilities to enable firms to capture the full performance created by investing in entrepreneurial orientation.

6.4 Implication for research

The thesis has important implications for future entrepreneurship research in poverty settings. First, entrepreneurship theories that address variations in EO at the BoP level could consider the four EO dimensions as an entity (second-order reflective and formative), or only concentrate on selected dimensions. This implication is further underscored by our evaluation of reliability and validity of each dimension of EO. Second, empirical researchers addressing relationships between EO and other variables in their work are encouraged to use the four-dimensional EO measurement scheme, for which the validity has been established. However, they should be aware of the challenges related to the selection of the conceptual model. The model specification adopted must be consistent with the questions that drive research. For example, if the aim of the study is to better understand the antecedents of firms' EO, then the second-order reflective model is appropriate. A formative conceptual model can be adopted when the antecedents are already known – they are the dimensions of the EO themselves.

6.5 Implications for entrepreneurs and policymakers

Next to theory, this thesis also has interesting implications for practice. In this regard, we noted that the entrepreneurs studied in this thesis greatly appreciated to have had the opportunity to reflect on their behaviour. As a result, they obtained further insights into the nature of their job. Accordingly, a self-assessment tool and benchmarks would add real value for entrepreneurs, especially if some performance measures were included.

The results also have important practical implications for the growth of small businesses in Benin and other developing countries with similar contextual characteristics. The entrepreneurial-orientation dimensions revealed in this thesis could help to identify areas of strengths, and areas
that needs improvement when an entrepreneurial-orientation strategy is needed. On the one hand, the results from this thesis suggest the crucial roles that entrepreneurial orientation and networking-capability development have for the achievement of business performance. Small firms operating within BoP in D&E economies often lack tangible resources to build up advanced technologies, to produce superior products for markets etc. For such firms, EO and networking-capability development could enable them to overcome limitations in tangible resources and the weakness of formal institutional environment. On the other hand, the results also show that the entrepreneurial orientation of small business is not infinitely and positively correlated with their business performance. It would seem prudent for entrepreneurs to recognize that, when not accompanied by a favourable institutional environment, increasing levels of EO can become less beneficial, and even harmful to business performance. Moreover, entrepreneurs would be wise to increase EO in tandem with their networking capabilities to optimally enhance their business performance.

Until recently, a range of policy activities supported small-scale enterprises and prospective firms in D&E economies. Some relieve capital market constraints, others improve management skills and business practices, while others reduce and ease formalization procedures. The results of this thesis provide policymakers and entrepreneurship promotion support organizations with insights concerning focus areas in order to better facilitate improvements in the small firm’s business performance. Policymakers and interventions that initiate programmes to promote locally driven entrepreneurship, can benefit from an understanding of the bottom-up process of entrepreneurship, entrepreneurial practices and firm or individual level capabilities. It may help to develop interventions for BoP entrepreneurs that also take into account the dynamics of these forms of enterprise and entrepreneurs’ orientation and capabilities related to business performance. Policymakers can also ensure that sufficient measures and resources be committed to building supportive business, an institutional environment, particularly for small-scale enterprises and thereby help them to fully benefit from their entrepreneurial orientation and entrepreneurial endeavours.

6.6 Research limitations and directions for future research

This dissertation is only a first step in exploring locally-driven entrepreneurship at the BoP and opens new avenues for future research. Since each chapter already provides directions for further research specific to the empirical chapters, we would like to restrict the discussion here to general directions for future research on entrepreneurship at the BoP. There are considerations that one needs to take into account when interpreting the findings in this thesis. First, in providing a process-
based view of entrepreneurship at the BoP, the studied case pertains only to agribusiness, and this case was selected from a single country, Benin. Although economic sectors in BoP share several characteristics, they remarkably vary in the type of activities conducted. Our insights into the entrepreneurial process model generated raise the question of generalizability, concerning the extent to which our findings apply to other sectors and industries. Thus, the generalizability of the findings may benefit from further research in other sectors, industries, and D&E economies.

Second, the studies conducted in this thesis (chapters 2 and 3) would benefit from further research that critically examines, tests, and extends the developed propositions, frameworks, and conclusions. Larger data sets are needed so that control variables can be better tested, and replication with data of other sector and industries could further improve our understanding of entrepreneurship at the BoP.

Third, the thesis used both qualitative and quantitative approaches for data collection through a cross-sectional design. Still, longitudinal research would validate our findings and allow further analysis of the causal claims made in this dissertation. Moreover, as mentioned earlier, we only explored the economic and owner-manager’s personal performance. We did not explore the sustainable and social dimensions of firm performance, that capture the extent to which owner-managers take the social and environmental factors into consideration (Morris et al., 2006; Gundry and Welsch, 2001), in terms of certain specified indicators and stakeholders’ satisfaction. Originating in the context of large enterprises, the notions of corporate social responsibility and sustainable development are now applied to the small business context (Raymond et al., 2013). In the pursuit of economic growth, it is important to understand how and to which extent BoP entrepreneurship takes social and environmental factors into consideration.

Finally, further research is also called for with regard to the validity of entrepreneurship and management theories in the BoP, other than the ones discussed in this thesis. Other theories such as those on resource-based view, entrepreneurial learning, and innovations theories may also require contextualization to the BoP. In addition to this, it would be interesting to go beyond the progress in acknowledging situational boundaries for entrepreneurship -contextualization of entrepreneurship theories - to identify “entrepreneurship theories of BoP context” (see chapter 2), and from a dynamic perspective to understand and analyse the effects BoP has on entrepreneurship and the ways entrepreneurship influences the BoP. Such thinking implies a “two-way relationship” between entrepreneurship and BoP context. That is how contextual factors influence the nature and extent of entrepreneurship and how entrepreneurship impacts its contexts.
References
References


Banerjee AV and Duflo E. (2008) What is middle class about the middle classes around the world? The Journal of Economic Perspectives 22: 3-41A.


References


Chen S and Ravallion M. (2008) The developing world is poorer than we thought, but no less successful in the fight against poverty.


References


References


References


Karnani AG. (2008a) Employment, not microcredit, is the solution.


Miles MB and Huberman AM. (1994) *Qualitative data analysis: An expanded sourcebook*: sage London.

Miles MB, Huberman AM and Saldana J. (2013) *Qualitative data analysis: A methods sourcebook*: Sage London.


References


References


References


Summary
Summary

Given that entrepreneurship is increasingly essential to expanding employment, wealth creation and poverty reduction in developing and emerging (D&E) countries, small-scale entrepreneurship has recently become an important field of study and a tool for policymakers. However, there are some practical and theoretical issues regarding the promotion of local entrepreneurship. The dynamics of entrepreneurship are considered to be universal, and the prevailing conceptualization focuses on an individualistic and goal-oriented process which is determined by competencies related to alertness, recognition, and resource mobilization for the exploitation of opportunities, followed by business growth. The majority of intervention activities based on this conceptualization of entrepreneurship is from the perspective of Western and advanced economies, despite considerable evidence from prior studies that highlight dramatic differences between developed economies of the United States and Western Europe, and BoP contexts in D&E countries. Given such differences, more study and data are needed from the BoP contexts. Rather than making assumptions, the type of entrepreneurship in the BoP and the underlying mechanisms need to be theoretically and empirically examined. Considering this gap in knowledge, this thesis posed the following general research question:

How does entrepreneurship emerge and evolve in BoP settings and what kinds of entrepreneurial behaviour have been developed, and to what extent are these behaviours related to business performance?

The thesis aspired to answer this general research question by means of four empirical studies. A process-perspective and multi-method approach were adopted to investigate the bottom-up entrepreneurship.

Chapter 2 took a first step in answering the general research question by focusing on the dynamics of the entrepreneurial action. Even though entrepreneurship is seen as a strategy in combating poverty, the process that leads to entrepreneurial action in a BoP context is still unclear. In response to this gap, Chapter 2 answers the following research question:

Research question 1 (Chapter 2): How does the entrepreneurial process unfold and what are the main stages of this process?

In this chapter, the study illustrated the possibilities a multi-layered perspective offers to understand the complexity of entrepreneurship in poverty settings. Based on five focus group discussions and 36 in-depth interviews with vegetable farmers in Benin, the study examined the entrepreneurship of poor people. We learned that entrepreneurial action is the nexus of individual and exogenous...
Summary

Given that entrepreneurship is increasingly essential to expanding employment, wealth creation and poverty reduction in developing and emerging (D&E) countries, small-scale entrepreneurship has recently become an important field of study and a tool for policymakers. However, there are some practical and theoretical issues regarding the promotion of local entrepreneurship. The dynamics of entrepreneurship are considered to be universal, and the prevailing conceptualization focuses on an individualistic and goal-oriented process which is determined by competencies related to alertness, recognition, and resource mobilization for the exploitation of opportunities, followed by business growth. The majority of intervention activities based on this conceptualization of entrepreneurship is from the perspective of Western and advanced economies, despite considerable evidence from prior studies that highlight dramatic differences between developed economies of the United States and Western Europe, and BoP contexts in D&E countries. Given such differences, more study and data are needed from the BoP contexts. Rather than making assumptions, the type of entrepreneurship in the BoP and the underlying mechanisms need to be theoretically and empirically examined. Considering this gap in knowledge, this thesis posed the following general research question:

How does entrepreneurship emerge and evolve in BoP settings and what kinds of entrepreneurial behaviour have been developed, and to what extent are these behaviours related to business performance?

The thesis aspired to answer this general research question by means of four empirical studies. A process-perspective and multi-method approach were adopted to investigate the bottom-up entrepreneurship.

Chapter 2 took a first step in answering the general research question by focusing on the dynamics of the entrepreneurial action. Even though entrepreneurship is seen as a strategy in combating poverty, the process that leads to entrepreneurial action in a BoP context is still unclear. In response to this gap, Chapter 2 answers the following research question:

Research question 1 (Chapter 2): How does the entrepreneurial process unfold and what are the main stages of this process?

In this chapter, the study illustrated the possibilities a multi-layered perspective offers to understand the complexity of entrepreneurship in poverty settings. Based on five focus group discussions and 36 in-depth interviews with vegetable farmers in Benin, the study examined the entrepreneurship of poor people. We learned that entrepreneurial action is the nexus of individual and exogenous
factors in complex relationships. Based on this, we elaborated on the characteristics of the process model of entrepreneurial action. The study provides a process-based view of entrepreneurship at the BoP, suggesting a need for consistency between individual, behavioural strategies, and contextual elements.

Chapter 3 takes a closer look at the micro-process of entrepreneurial orientation (EO) as strategic behaviour that small businesses operating at the BoP use to thrive. The purpose of this chapter is to examine the behavioural patterns of entrepreneurs in order to understand the manifestation of the EO of small business. The following research question was addressed:

**Research question 2 (Chapter 3): How does entrepreneurial orientation as a strategic practice and critical element of the entrepreneurial process of small firms manifest itself?**

To answer this research question, an inductive qualitative approach was adopted, and in-depth interviews have been conducted with entrepreneurial businesses operating in fresh vegetable production in Benin. The study confirmed the appropriateness of innovativeness, proactiveness, and risk-taking dimensions. The results identify two new context-specific dimensions that provide a better understanding of the manifestation of small businesses EO within this particular context.

Based on the findings in Chapter 3, Chapter 4 offers further insights into the measurement scales for the contextualized small business EO. Academic research lacks a clear and specific definition and rigorous measurements of the construct within poverty settings in D&E economies. This led to the following research question:

**Research question 3 (Chapter 4): How can the manifestation of the entrepreneurial orientation of entrepreneurs be measured?**

Chapter 4 took an inside-out approach sensitive to the context and offered a conceptualization of small business EO in BoP in D&E economies. The study’s findings provided evidence of four separate dimensions of the EO construct in BoP settings: innovativeness, proactiveness, collaborativeness and knowledge-acquisition orientation. The results suggested that all four dimensions significantly contribute to the overarching EO as second-order reflective or second-order formative constructs. The study provides an initial contribution to the clarification of EO of small firms operating at the BoP by defining and validating indicators for each dimension. Thus, this chapter provides essential groundwork for future research to explore different strategic
patterns of entrepreneurial behaviours, as well as practical guidance for studies exploring the role of EO in other strategic capabilities and outcome variables such as firms’ performance.

Chapter 5 took the next step by bringing small business EO into the discussion regarding business performance and the role of entrepreneur’s networking capabilities on the EO-business performance relationship.

Research question 4 (Chapter 5): How do entrepreneurial orientation and networking capabilities interact in realizing business performance in small firms?

Chapter 5 examined the nature of the relationship between EO and small-firm performance. The results from a sample of 240 owner-managers of vegetable farms indicated an inverted U-shaped relationship between EO and small-firm business performance. Drawing upon social capital and network capability theories, the study provides insight into how the owner-manager’s network capabilities can contribute to increasing the optimal levels and business performance-related returns from EO.

Together, the four empirical studies contribute to a better understanding of the entrepreneurship process at the BoP which is considered to underlie the development of productive entrepreneurship. The thesis also evidences that the networking capability of entrepreneurs facilitates the effect of EO on business performance. These findings provide policymakers and entrepreneurship promotion-support organizations with insights concerning focus areas in order to better facilitate improvements in the small firm’s business performance at the BoP.
Acknowledgements
Acknowledgements

At the end of this PhD journey, I finally have the opportunity to express my gratitude to the persons and institutions that have made my PhD a reality. I am forever grateful for their help and I would like to take this occasion to thank some of them.

I am grateful to The Netherlands Organization for International Cooperation in Higher Education and Research (NUFFIC) that funded this research.

This work could not have been completed without the constant support of my wife Monique, my daughters Arikè Faridath, Oyéyèmi Nabilath, Foumilayo Ankilath, and my son Olouwafemi Farhane. You found ways to cope with my absence and gave me the necessary support to carry out this PhD research. Please, see this piece of work as an expression of my love.

My deep gratitude goes to my supervisors Prof Dr Onno Omta and Dr Vincent Blok. I enjoyed working with you. I would like to thank you for your guidance, for the knowledge that you shared with me, and for the fruitful collaboration. Onno, thanks so much for giving me the opportunity to carry out my PhD in the Management Studies Group. I have appreciated your continuous support and encouragement, your critical comments, as well as keeping a wonderful helicopter view of the overall project. Vincent, thanks for your day-to-day valuable supervision, remarks, suggestions, and follow-ups. I am very grateful for your patience, you guided me from the start of the whole process right up to the end, despite my weakness in English and your busy schedule.

Thanks are also due to Dr Dalalou-dine Arinloye. You first introduced me to Onno in 2012. Onno accepted me in the Management Studies (MST) Group after having read my PhD proposal and the short discussion we had in Cotonou. Since then it has been an enjoyable experience with the MST Group and I am grateful to its staff for their support offered in so many different ways. Ina, Lisette, Anne, Liesbeth, Jonathan, and Marloes, thank you very much for all your help and facilitation regarding administrative and financial matters during these past years. My special thanks to Thomas Long for his proofreading, Gerben Van der Velde and Ivo Van der Lans for your advice on statistical analysis.

I am thankful to all my colleagues (former and new) and friends of the MST Group for their helpful approach and advice during my stay in the Netherlands. Daniel Agbeko, thanks for the great and unforgettable time we spent together. I owe special thanks to Rob, Lisa, Jilde, Mmapatla, Teunis,
Acknowledgements

At the end of this PhD journey, I finally have the opportunity to express my gratitude to the persons and institutions that have made my PhD a reality. I am forever grateful for their help and I would like to take this occasion to thank some of them.

I am grateful to The Netherlands Organization for International Cooperation in Higher Education and Research (NUFFIC) that funded this research.

This work could not have been completed without the constant support of my wife Monique, my daughters Arikè Faridath, Oyéyèmi Nabilath, Foumilayo Ankilath, and my son Olouwafemi Farhane. I left you alone for months and months on end. You found ways to cope with my absence and gave me the necessary support to carry out this PhD research. Please, see this piece of work as an expression of my love.

My deep gratitude goes to my supervisors Prof Dr Onno Omta and Dr Vincent Blok. I enjoyed working with you. I would like to thank you for your guidance, for the knowledge that you shared with me, and for the fruitful collaboration. Onno, thanks so much for giving me the opportunity to carry out my PhD in the Management Studies Group. I have appreciated your continuous support and encouragement, your critical comments, as well as keeping a wonderful helicopter view of the overall project. Vincent, thanks for your day-to-day valuable supervision, remarks, suggestions, and follow-ups. I am very grateful for your patience, you guided me from the start of the whole process right up to the end, despite my weakness in English and your busy schedule.

Thanks are also due to Dr Dalalou-dine Arinloye. You first introduced me to Onno in 2012. Onno accepted me in the Management Studies (MST) Group after having read my PhD proposal and the short discussion we had in Cotonou. Since then it has been an enjoyable experience with the MST Group and I am grateful to its staff for their support offered in so many different ways. Ina, Lisette, Anne, Liesbeth, Jonathan, and Marloes, thank you very much for all your help and facilitation regarding administrative and financial matters during these past years. My special thanks to Thomas Long for his proofreading, Gerben Van der Velde and Ivo Van der Lans for your advice on statistical analysis.

I am thankful to all my colleagues (former and new) and friends of the MST Group for their helpful approach and advice during my stay in the Netherlands. Daniel Agbeko, thanks for the great and unforgettable time we spent together. I owe special thanks to Rob, Lisa, Jilde, Mmapatla, Teunis,
Edurne, Tjidde, Lucien, August and all the others for the friendly working and recreational atmosphere we created.

In the Faculty of Agronomy of the University of Parakou, I owe acknowledgment to Prof J. Yabi. I am grateful to you for all the support and advice you gave me during this process, and for the opportunity you gave me to be part of the supervision team of bachelor students. My deepest appreciation also goes Dr L. Idrissou, Dr I. Moumou, Dr M.N. Baco, Dr H. Samadori and Dr A. Natta, for their advice and support.

I would also like to acknowledge the enumerators who helped me in data collection, especially Luc Akpa and Séraphin Atchi who spent their precious time to supervise the field work.

I sincerely thank A. Souléimane, B. Falylath, S. Dêédi, A. Folachodé, T. Charles, A. Raoul, K. Nathalie, D. Sylvain, W. Jonas, F. Landry, F. Nicodeme, M. Guirguissou, K. Raoul O. Florent, K. Augustin, M. Koketso, N. Avhafungani, W. Dorothy and many others for their social and emotional support during my stay in Wageningen. My sincere thanks and appreciation go to everyone I have not been able to list. I am endlessly grateful to you all; you have been as important and supportive as the persons I have listed.

Waliou Yessoufou

December 2017

Wageningen, The Netherlands
Edurne, Tjidde, Lucien, August and all the others for the friendly working and recreational atmosphere we created.

In the Faculty of Agronomy of the University of Parakou, I owe acknowledgment to Prof J. Yabi. I am grateful to you for all the support and advice you gave me during this process, and for the opportunity you gave me to be part of the supervision team of bachelor students. My deepest appreciation also goes to Dr L. Idrissou, Dr I. Moumoui, Dr M.N. Baco, Dr H. Samadori and Dr A. Natta, for their advice and support.

I would also like to acknowledge the enumerators who helped me in data collection, especially Luc Akpa and Séraphin Atchi who spent their precious time to supervise the field work.

I sincerely thank A. Soulé, B. Falylath, S. Dêêdi, A. Folachodé, T. Charles, A. Raoul, K. Nathalie, D. Sylvain, W. Jonas, F. Landry, F. Nicodeme, M. Guirguissou, K. Raoul O. Florent, K. Augustin, M. Koketso, N. Avhafunani, W. Dorothy and many others for their social and emotional support during my stay in Wageningen. My sincere thanks and appreciation go to everyone I have not been able to list. I am endlessly grateful to you all; you have been as important and supportive as the persons I have listed.

Waliou Yessoufou

December 2017

Wageningen, The Netherlands

About the author
Background

Ahoudou Waliou Yessoufou was born on November 24, 1976, in Save, Benin. After completing his secondary education in the College of Abomey-Calavi (Benin) in 1997, he studied agricultural sciences at Faculté des Sciences Agronomiques of the University of Abomey-Calavi (Benin) where he graduated in 2002 as an Agricultural Engineer with a major in Natural Resources Management.

After the graduation of his engineering degree, he worked in Benin at various positions: as agribusiness manager, project coordinator, and research assistant. In 2008 he decided to pursue business studies at Paris-Dauphine University, France. He joined the MBA International programme from which he obtained an MBA degree in 2009. In January 2013, he was granted a scholarship by The Netherlands Organization for International Cooperation in Higher Education (NUFFIC) for his PhD research in the Management Studies/Business Administration group of Wageningen University. His key research interests lie within entrepreneurship and small business in developing countries.

Publication

Peer Reviewed Publications


In Press / (Re)submitted


Background

Ahoudou Waliou Yessoufou was born on November 24, 1976, in Save, Benin. After completing his secondary education in the College of Abomey-Calavi (Benin) in 1997, he studied agricultural sciences at Faculté des Sciences Agronomiques of the University of Abomey-Calavi (Benin) where he graduated in 2002 as an Agricultural Engineer with a major in Natural Resources Management. After the graduation of his engineering degree, he worked in Benin at various positions: as agribusiness manager, project coordinator, and research assistant. In 2008 he decided to pursue business studies at Paris-Dauphine University, France. He joined the MBA International programme from which he obtained an MBA degree in 2009. In January 2013, he was granted a scholarship by The Netherlands Organization for International Cooperation in Higher Education (NUFFIC) for his PhD research in the Management Studies/Business Administration group of Wageningen University. His key research interests lie within entrepreneurship and small business in developing countries.

Publication

Peer Reviewed Publications

Yessoufou, A.W., Blok V. and Omta S.W.F. (2017). "The Process of Entrepreneurial Action at the Base of the Pyramid in Developing Countries: A Case of Vegetable Farmers in Benin": published in the Journal of Entrepreneurship and Regional Development

In Press / (Re)submitted


Yessoufou, A.W., Blok V. and Omta S.W.F. (2017). "Overcoming the one size fits all: Contextualizing and validating entrepreneurial orientation of small firms in poverty settings in developing countries": Under revision in the International Small Business Journal

**Presented Conference Papers**

Entrepreneurial orientation of small firms in informal sector in developing economies: An empirical evidence from Benin. *Paper presented in May 2016 at the WASS PhDs Day conference, Wageningen, the Netherlands.*

Entrepreneurial orientation of small firms in the informal sector in developing economies: An empirical evidence from Benin. *Paper presented in May 2016 at the 7th Africa Business and Entrepreneurship Conference, Syracuse University, New York, USA*

Dynamics of entrepreneurship at the Base of the Pyramid: From the emergence of entrepreneurial action to opportunity exploitation in the case of vegetable farmers in Benin. *Paper presented in June 2016 at the 14th Rural Entrepreneurship Conference, Lincoln, UK”*

Is the entrepreneurial orientation-performance relationship generalizable to informal economies at the base of the pyramid in developing countries? An empirical test in the context of Beninese agropreneurship”. *Paper presented in June 2016 at the 26th IFAMA World and 12th WICANEM Conference, Aarhus, Denmark*

Entrepreneurial Orientation at the Base of the Pyramid: An empirical approach of a theoretically grounded construct in research on agri-business in Benin”. *Paper presented in November 2016 at the “30th Research in Entrepreneurship and small business conference, Antwerp, Belgium”*

---

**Completed Training and Supervision Plan**

<table>
<thead>
<tr>
<th>Name of the learning activity</th>
<th>Department/Institute</th>
<th>Year</th>
<th>ECTS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>A) Project related competences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research methodology: from topic to proposal</td>
<td>WASS</td>
<td>2013</td>
<td>4</td>
</tr>
<tr>
<td>Introductory social network analysis</td>
<td>University of Southern Denmark</td>
<td>2013</td>
<td>5</td>
</tr>
<tr>
<td>Technology innovation and strategy, YSS32306</td>
<td>WUR</td>
<td>2013</td>
<td>6</td>
</tr>
<tr>
<td>Writing research proposal</td>
<td>WASS</td>
<td>2013</td>
<td>6</td>
</tr>
<tr>
<td>B) General research related competences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduction course</td>
<td>WASS</td>
<td>2013</td>
<td>1</td>
</tr>
<tr>
<td>Techniques for writing and presenting a scientific paper</td>
<td>WGS</td>
<td>2014</td>
<td>1.2</td>
</tr>
<tr>
<td>Qualitative data analysis: Multivariate Techniques, YRM60306</td>
<td>WUR</td>
<td>2015</td>
<td>2</td>
</tr>
<tr>
<td>Project and time management</td>
<td>WGS</td>
<td>2014</td>
<td>1.5</td>
</tr>
<tr>
<td>Information literacy, including Endnote</td>
<td>WUR Library</td>
<td>2014</td>
<td>0.6</td>
</tr>
<tr>
<td>C) Career related competences/personal development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entrepreneurship in and outside science</td>
<td>WGS</td>
<td>2016</td>
<td>1.4</td>
</tr>
<tr>
<td>“Entrepreneurial Behaviour of farmers engaged in vegetable businesses at the Base of the Pyramid in Benin”</td>
<td>WASS PhD day</td>
<td>2016</td>
<td>1</td>
</tr>
<tr>
<td>“Entrepreneurial orientation of small firms in informal sector in developing economies: An empirical evidence from Benin”</td>
<td>7th Africa Business and Entrepreneurship Conference, Syracuse University, New York, USA</td>
<td>2016</td>
<td>1</td>
</tr>
<tr>
<td>“Dynamics of entrepreneurship at the Base of the Pyramid: From the emergence of entrepreneurial action to opportunity exploitation in the case of vegetable farmers in Benin”</td>
<td>14th Rural Entrepreneurship Conference, Lincoln, UK</td>
<td>2016</td>
<td>1</td>
</tr>
<tr>
<td>“Is the entrepreneurial orientation-performance relationship generalizable to informal economies at the base of the pyramid in developing countries? An empirical test in the context of Beninese agropreneurship”</td>
<td>26th IFAMA World and 12th WICANEM Conference, Aarhus, Denmark</td>
<td>2016</td>
<td>1</td>
</tr>
<tr>
<td>Post-Doctoral Writing Workshop at RENT</td>
<td>Antwerp, Belgium</td>
<td>2016</td>
<td>1</td>
</tr>
<tr>
<td>“Entrepreneurial Orientation at the Base of the Pyramid: An empirical approach of a theoretically grounded construct in research on agri-business in Benin”</td>
<td>30th RENT conference Antwerp, Belgium</td>
<td>2016</td>
<td>1</td>
</tr>
<tr>
<td>Supervision of bachelor students’ thesis</td>
<td>University of Parakou / FA, Parakou, Benin</td>
<td>2014</td>
<td>2</td>
</tr>
</tbody>
</table>

*One credit according to ECTS is on average equivalent to 28 hours of study load*
Completed Training and Supervision Plan

Ahoudou Waliou Yessoufou

Wageningen School of Social Sciences (WASS)

<table>
<thead>
<tr>
<th>Name of the learning activity</th>
<th>Department/Institute</th>
<th>Year</th>
<th>ECTS*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A) Project related competences</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research methodology: from topic to proposal</td>
<td>WASS</td>
<td>2013</td>
<td>4</td>
</tr>
<tr>
<td>Introductory social network analysis</td>
<td>University of Southern Denmark</td>
<td>2013</td>
<td>5</td>
</tr>
<tr>
<td>Technology innovation and strategy, YSS32306</td>
<td>WUR</td>
<td>2013</td>
<td>6</td>
</tr>
<tr>
<td>Writing research proposal</td>
<td>WASS</td>
<td>2013</td>
<td>6</td>
</tr>
<tr>
<td><strong>B) General research related competences</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduction course</td>
<td>WASS</td>
<td>2013</td>
<td>1</td>
</tr>
<tr>
<td>Techniques for writing and presenting a scientific paper</td>
<td>WGS</td>
<td>2014</td>
<td>1.2</td>
</tr>
<tr>
<td>Qualitative data analysis: Multivariate Techniques, YRM60306</td>
<td>WUR</td>
<td>2015</td>
<td>2</td>
</tr>
<tr>
<td>Project and time management</td>
<td>WGS</td>
<td>2014</td>
<td>1.5</td>
</tr>
<tr>
<td>Information literacy, including Endnote</td>
<td>WUR Library</td>
<td>2014</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>C) Career related competences/personal development</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entrepreneurship in and outside science</td>
<td>WGS</td>
<td>2016</td>
<td>1.4</td>
</tr>
<tr>
<td>“Entrepreneurial Behaviour of farmers engaged in vegetable businesses at the Base of the Pyramid in Benin”</td>
<td>WASS PhD day</td>
<td>2016</td>
<td>1</td>
</tr>
<tr>
<td>“Entrepreneurial orientation of small firms in informal sector in developing economies: An empirical evidence from Benin”</td>
<td>7th Africa Business and Entrepreneurship Conference, Syracuse University, New York, USA</td>
<td>2016</td>
<td>1</td>
</tr>
<tr>
<td>“Dynamics of entrepreneurship at the Base of the Pyramid: From emergence of entrepreneurial action to opportunity exploitation in the case of vegetable farmers in Benin”</td>
<td>14th Rural Entrepreneurship Conference, Lincoln, UK</td>
<td>2016</td>
<td>1</td>
</tr>
<tr>
<td>“Is the entrepreneurial orientation-performance relationship generalizable to informal economies at the base of the pyramid in developing countries? An empirical test in the context of Beninese agri-entrepreneurship”</td>
<td>26th IFAMA World and 12th WICANEM Conference</td>
<td>2016</td>
<td>1</td>
</tr>
<tr>
<td>Post-Doctoral Writing Workshop at RENT</td>
<td>Antwerp, Belgium</td>
<td>2016</td>
<td>1</td>
</tr>
<tr>
<td>“Entrepreneurial Orientation at the Base of the Pyramid: An empirical approach of theoretically grounded construct in research on agri-business in Benin”</td>
<td>30th RENT conference Antwerp, Belgium</td>
<td>2016</td>
<td>1</td>
</tr>
<tr>
<td>Supervision of bachelor students’ thesis</td>
<td>University of Parakou / FA, Parakou, Benin</td>
<td>2014</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total** | | | 36.7 |

*One credit according to ECTS is on average equivalent to 28 hours of study load

WUR stands for Wageningen University and Research

WASS stands for Wageningen School of Social Sciences

WGS stands for Wageningen Graduate School
The research described in this thesis was financially supported by the Netherlands Organization for International Cooperation in Higher Education and Research (NUFFIC) through the Netherlands Fellowship Programme (NFP).

Financial support for the printing of this thesis was obtained from Dr Judith Zwartz Foundation, Wageningen, The Netherlands.

Cover design by A.W. Yessoufou and Z. Gbadamassi
Printed by Digiforce / Proefschriftmaken.nl, Vianen

Copyright © 2017 Ahoudou Waliou Yessoufou