



UNIVERSITÉ DE LIÈGE
HEC Liège – Management School

**ENTREPRENEURIAL RESOURCE MOBILISATION STRATEGIES IN
UNCERTAIN CONTEXTS :**

**THE CASE OF WASTE COLLECTION ENTREPRENEURS IN OUAGADOUGOU,
BURKINA FASO**

Dissertation presented to obtain the degree of
'Docteur en Sciences Économiques et de Gestion'

Submitted by
Catherine DAL FIOR

25 October 2019

Examining board:

Benjamin HUYBRECHTS (Supervisor), HEC Liège University, emlyon business school
Frédéric DUFAYS, KU Leuven
Emmanuel KAMDEM, ESSEC, CERAME, University of Douala
Jean NIZET, University of Namur
Virginie XHAUFLAIR, HEC Liège University

Acknowledgements

This thesis would not have been possible without the precious help and support of people who accompanied and guided me for seven years.

First, the most important person in this doctoral research was my supervisor, Benjamin Huybrechts. I value the chance I had to be able to count on him from the beginning, to share my thoughts, my reasoning but also my personal path and emotions without any holding back. Throughout my thesis, he has always been benevolent and encouraging, without in any way lowering the standards expected of my work. The many qualities he put at my disposal allowed me to gradually gain self-confidence in my career as a researcher, which was not a foregone conclusion. I would like to thank Frédéric Dufays, also in my thesis committee, for his presence and commitment at my side, for his always enlightening perspective and for the significant time he spent advising me and answering my questions. A special thank you for the wonderful scientific monitoring that he still shares with me! The thesis would not have been what it is without the contribution of Jean Nizet who honoured me by joining the thesis committee. His considerable experience in organisational theory, both in Belgium and on the African continent, enabled me to challenge myself but also to give a more sociological and critical perspective to my research. Finally, two other people joined this panel of experts: Emmanuel Kamdem and Virginie Xhaufclair. I would like to thank them both very much for agreeing to spend time on my research and for the many comments they made that allowed me to progress even further.

As regards the ICHEC, one page would not be enough to say a word about each of my colleagues who have supported me from the beginning. I will start with the Housing Project team, which almost ‘gave birth’ to me. Vincent Huart, who gradually saw me withdraw from some tasks to devote myself to my research, never stopped encouraging me and never made me feel guilty. With Laurent Lahaye, a colleague but above all a friend, also engaged in doctoral research, I was able to share my anxieties, my doubts but also my best moments. Thanks for your support, I will return the favour in due course. More recently, Véronique Van Muylers and Line Didelot joined the team and helped me a lot with their smile every morning and all our small moments of fruitful exchange. I would also like to thank Pierre Grega, the head of the North-South option, who trusted me and encouraged me as much as he could. A person who is also very dear to me in this journey is Christel Dumas, Director of Research at the ICHEC. She never spared her time to help me, answering my untimely questions with wisdom, training me thanks to the research incubator she set up, reading my papers and final thesis, then giving

relevant and useful feedback. I will always remember her roller coaster metaphor for the thesis. I would also like to thank Brigitte Chanoine, Rector of the ICHEC, who trusted me by hiring me and was supportive of my approach from the beginning. Thanks to her, the prominence of research has greatly improved in the institute, an institute whose influence she helps spread around the world. I cannot close this ICHEC chapter without thanking the ICHEC ‘girls’, namely Marie Garcia, Stéphanie Kempeners, Marisa Muninger, Julie De Foor, Marine Falize, Ingrid Bawin, Nadia Muller, Mathilde Fox, Yamina Hammas, Brigitte Hudlot, Isabelle Choquet, Géraldine Thiry, Gisèle Paquet, Valérie Kinon, Vladia Schrooten, Carine Vankeerberghen, Martine Osterrieth, Solange Simons, Sabine Gods and many others who put up with my thesis moods on a daily basis but, above all, boosted me or allowed me to spend some pleasant moments forgetting my doctoral issues. Finally, I cannot conclude this ICHEC chapter without thanking my colleague and neighbour Alain Ejzyn, who literally nourished me at the end of this journey, giving me the strength to go all the way.

My research centre, the Centre for Social Economy at University of Liège, played a major role in my research expedition. It was the starting point of everything. I would like to thank the entire team for welcoming me, and in particular Jacques Defourny for his enthusiasm about my research, but also Sybille Mertens, Virginie Xhaufclair, Charlotte Moreau, Julie Rijpens, Amélie Mernier, Thomas Bauwens, Séverine Thys, Sophie Adam, Hyung-Sik Eum, Michela Giovannini, Caroline Lovens, Michel Marée, Hughes Mouchamps, Thadée Niyungeko and everyone who has been to the ‘KES’ with me. Both our study times and numerous festive events allowed me to feel surrounded by a real family of researchers and to give meaning to my research, even if I had to be more distant at the end of the journey. More specifically, I would like to thank Julie Rijpens and Amélie Mernier for their friendship and the many joint working sessions that have allowed us to move forward. I will never forget this wonderful research centre, full of humanity and admirable objectives, of which I will never cease to be proud.

Without the welcome and openness of many people in Burkina Faso, this thesis would not have taken shape. I wish to express my deep gratitude to entrepreneurs, project managers, municipal waste management officials and academics who took time to answer my questions and allowed the precious data collection for the dissertation. Thanks also to my Burkinabe friends, Natacha Sondo and Thierry Karfo, who made my job easier on the spot. I also would like to thank Lisa Barutel for her network and her help with social entrepreneurship in Burkina Faso. I would also

like to thank Benoit Naveau, Africa Project Manager at Autre terre, for his availability and for the productive discussion during the presentation of the results of the thesis.

Last but not least, I could not have finished this thesis without the support of my family. First of all, my husband, Dieudonné, has supported me on a daily basis, both motivating me and helping with the logistics of our life. He also gave me the opportunity to understand the Burkinabe culture, which he taught me and which I adopted. My daughter Mia, even though she preferred me at her side rather than work on my PhD, created my little moments of happiness every day. My son, warm in my belly, experienced the last moments of stress and let me go through with it until the end. My dad was there to take over when I needed him and, because of his pride, encouraged me to go all the way. I would like to thank my mother who, even though she did not have the chance to see me complete the doctoral process, raised me as a fighter. I know that she watched over me and sent me all her strength from the stars. My parents showed me that you must never give up and that, with hard work and thoroughness, you can achieve your goals. My sister, despite the distance, has always listened to me and stimulated me. I also wish to thank the friends who have always been with me, especially Livia Montini and Flore Vercaempst, encouraging me to achieve my goals both in my professional and personal life.

Finally, I would like to thank anyone who helped me and whom I have not mentioned.

Remerciements

Cette thèse n'aurait pas été possible sans l'aide de précieuses personnes qui m'ont accompagnée et guidée durant sept années.

Tout d'abord, la personne la plus importante de cette recherche doctorale est mon superviseur, Benjamin Huybrechts. Je mesure la chance que j'ai eue de pouvoir compter sur lui depuis le début, de pouvoir partager mes réflexions, mes raisonnements mais aussi mon parcours de vie privé et mes émotions sans complexe. Tout au long de ma thèse, il n'a cessé d'être bienveillant, encourageant, ce qui n'a en rien enlevé l'exigence qu'il attendait de mon travail. Les nombreuses qualités qu'il a mises à mon service m'ont permis de prendre petit à petit confiance en moi dans mon cheminement de chercheuse, ce qui n'était pas gagné d'avance. Toujours dans mon comité de thèse, je tiens à remercier Frédéric Dufays, pour sa présence et son engagement à mes côtés, pour son regard toujours éclairant et pour le temps conséquent qu'il a passé à me conseiller et à répondre à mes questions. Un merci spécial à la merveilleuse veille scientifique dont il me fait encore profiter ! La thèse n'aurait pas non plus été ce qu'elle est sans l'apport de Jean Nizet qui m'a fait l'honneur de rejoindre le comité de thèse. Son expérience considérable de la théorie des organisations, aussi bien en Belgique que sur le continent africain, m'a permis de m'outiller mais aussi de donner un regard plus sociologique et critique à ma recherche. Enfin, deux autres personnes sont venues compléter ce panel d'experts : Virginie Xhaufclair et Emmanuel Kamdem. Je les remercie vivement d'avoir accepté de passer du temps sur ma recherche ainsi que pour les nombreux commentaires reçus et qui m'ont poussée encore plus loin.

Au niveau de l'ICHEC, une page ne suffirait pas pour dire un mot sur chacun de mes collègues qui m'ont soutenue depuis le début. Je commencerai par l'équipe du Housing Project, qui m'a presque vue naître. Vincent Huart, qui m'a vue petit à petit me retirer de certaines tâches pour pouvoir me consacrer à ma recherche, n'a cessé de m'encourager mais surtout ne m'a jamais fait culpabiliser. Laurent Lahaye, un collègue mais avant tout un ami, lui aussi dans une démarche doctorale, a partagé avec moi, mes angoisses, mes doutes mais aussi mes meilleurs moments. Merci aussi à lui pour son soutien, je rendrai la pareille son tour venu. Plus récemment, Véronique Van Muylders et Line Didelot qui ont rejoint l'équipe et m'ont beaucoup aidée avec leur sourire de chaque matin et tous nos petits moments d'échange fructueux. J'aimerais aussi remercier Pierre Grega, le responsable de l'option Nord-Sud qui m'a fait confiance et m'a aussi encouragée dès qu'il le pouvait. Une personne qui m'est également très chère dans ce parcours est Christel Dumas, Directrice de la recherche l'Ichec. Elle n'a jamais compté ses heures pour

m'aider, répondre à mes questions intempestives, me préparer grâce au 'Research incubator' qu'elle a mis en place, relire mes papiers et ma thèse finale avec du feedback pertinent et utile. Je me souviendrai toujours de sa métaphore de la montagne russe pour parler de la thèse. Sa sagesse m'a été d'une très grande utilité. J'aimerais également remercier Brigitte Chanoine, recteur de l'ICHEC, qui m'a fait confiance en m'engageant à l'ICHEC et qui m'a suivie dans ma démarche depuis le début. Grâce à elle, la place de la recherche a beaucoup évolué dans notre institution, institution qu'elle fait rayonner partout dans le monde. Je ne peux terminer ce chapitre ICHEC sans remercier les "filles" de l'ICHEC, à savoir Marie Garcia, Stéphanie Kempeners, Marisa Muninger, Julie De Foor, Marine Falize, Ingrid Bawin, Nadia Muller, Mathilde Fox, Yamina, Brigitte Hudlot, Isabelle Choquet, Géraldine Thiry, Gisèle Paquet, Valérie Kinon, Vladia Schrotten, Carine Vankeerberghen, Martine Osterrieth, Solange Simons, Sabine Gods et tant d'autres qui ont supporté mes humeurs de la thèse au quotidien mais qui m'ont surtout boostée ou encore permis de passer des bons moments oubliant les problèmes liés à ma thèse. Enfin, je ne peux terminer ce chapitre ICHEC sans remercier mon collègue et voisin, Alain Ejzyn, qui m'a littéralement nourrie en cette fin de parcours, me donnant des forces pour aller jusqu'au bout.

Mon centre de recherche, le Centre d'Economie Sociale de l'Université de Liège a également joué un grand rôle dans ma recherche. Il a été le point de départ de tout. Je remercie toute l'équipe liégeoise d'avoir accueilli la Carolo-Bruxelloise que je suis, et en particulier Jacques Defourny pour son enthousiasme au sujet de ma recherche mais également Sybille Mertens, Virginie Xhaufclair, Charlotte Moreau, Julie Rijpens, Amélie Mernier, Thomas Bauwens, Séverine Thys, Sophie Adam, Hyung-Sik Eum, Michela Giovannini, Caroline Lovens, Michel Marée, Hugues Mouchamps, Thadée Niyungeko et tous ceux qui ont été de passage au « KES ». Les moments d'étude comme les moments festifs m'ont permis de me sentir entourée, dans une vraie famille de chercheurs et de donner du sens à ma démarche, même si j'ai dû être plus distante en fin de parcours. Plus spécifiquement, je te tiens à remercier Julie Rijpens et Amélie Mernier pour leur amitié et les nombreuses séances de travail communes qui nous ont permis d'avancer ensemble. Je n'oublierai jamais ce merveilleux centre de recherche, rempli d'humanité et d'objectifs louables et dont je serai à jamais fière d'avoir été membre.

Sans l'accueil et l'ouverture de nombreuses personnes au Burkina Faso, cette thèse n'aurait pas eu lieu. Merci aux entrepreneurs, aux gestionnaires de projets, aux services municipaux de la gestion des déchets et aux académiques qui ont pris du temps pour répondre à mes questions.

Merci aussi à mes amis Burkinabè, Natacha Sondo et Thierry Karfo qui m'ont facilité la tâche sur place. Merci à Lisa Barutel pour son réseau et son aide dans l'entrepreneuriat social au Burkina Faso. Je tiens aussi particulièrement à remercier Benoit Naveau, responsable des projets Afrique chez Autre terre, pour sa disponibilité et pour l'échange très fructueux durant la restitution des résultats de la thèse.

Le dernier remerciement mais pas des moindres, s'adresse à ma famille et à son soutien. Tout d'abord mon mari, Dieudonné, qui m'a soutenue au quotidien, que ce soit pour me motiver ou encore prendre le relais au niveau logistique. Il m'a aussi permis de comprendre la culture Burkinabé, qu'il m'a enseignée et que j'ai adoptée. Ma fille, Mia, qui malgré le fait qu'elle préférerait m'avoir à ses côtés plutôt que de travailler sur ma thèse, représentait mes petits instants de bonheur au quotidien. Mon fils, bien au chaud dans mon ventre, qui a vécu les derniers instants de stress et qui m'a laissée aller jusqu'au bout du processus. Mon papa, qui a été présent pour me relayer quand j'en avais besoin et qui, par sa fierté, m'a encouragée à aller jusqu'au bout. Merci à ma maman, qui même s'il n'aura pas eu l'opportunité de me voir aller au bout du processus doctoral, m'a élevée en étant une battante. Je sais qu'elle a veillé sur moi et m'a envoyé toute sa force depuis les étoiles. Mes parents, tous deux, m'ont montré qu'il ne faut jamais baisser les bras et qu'avec le travail et la rigueur, on parvient à atteindre ses buts. Merci à ma sœur, qui malgré la distance, m'a toujours écoutée et stimulée. Je tiens aussi à remercier mes amis, en particulier Livia Montini et Flore Vercaempst, qui ont toujours été présents, m'encourageant à atteindre mes buts professionnels et privés.

Enfin, je tiens à remercier toute personne qui m'aurait aidée et que j'aurais malencontreusement oubliée.

Preamble

This thesis would not have been what it is without the influence of my personal and professional background, which has constantly challenged my view of life, the world and people.

Born into a family of Italian immigrants who settled in Charleroi (Belgium) at the end of the Second World War, I grew up in a generous and protective environment, where everyone was encouraged to go further to get out of a previously precarious context. My arrival in Brussels to study economics and management (ICHEC) was a revelation, and an opportunity to open up to the world. In the second year, I participated in the ICHEC Housing Project, an intercultural exchange enabling students to go to India, Burkina Faso or Benin for a month to discover other realities and other ways of thinking while working for a local social project. I went to Burkina Faso during three consecutive years because this project brought me so much and because I really wished to better understand our cultural differences but, also, our many similarities. I was both fascinated and became strongly attached. I felt at home there, perhaps because I found a community dynamics that is still very much alive in Italian culture as well. In parallel, I therefore chose the North-South module at the ICHEC (formerly, the Developing Countries Economy module), which allowed me to complement my field experience with more theoretical frameworks or with the experience of qualified teachers.

At the end of my studies, I felt that a career in a large company, logically expected for many management students, might not be entirely right for me. Nevertheless, I still wished to discover the typical world of business and worked for a consulting company in Brussels for two years. Still strongly attached to Burkina Faso, I had to keep in touch and, in my free time, developed a project in the education sector of the country; I also met my husband there in 2007. During my two years in the private sector, I received good training, acquired many tools, but did not perceive the meaning of my work. I did not understand what my work was for, or even who it was for.

So I left my company car and a promising salary to start as a *coopérante* at a Belgian NGO working in the agricultural sector of the social and solidarity economy in rural areas of Burkina Faso. This is why this field was important to be investigated in the thesis. While living there, I discovered that the development cooperation sector was not the ideal environment that I had imagined, either. I felt very ill at ease with the many inconsistencies between theory and practice, between headquarters and the local partner I was supposed to assist, and sometimes

borderline practices in the field. In short, I was frustrated by the large amounts of money available and the lack of concrete results on the ground. Nevertheless, the advantage of this sad state of affairs was that it drove me to ask more detailed questions and constantly seek appropriate answers during my two years on the spot.

On the basis of these experiences, it was natural that my professional career would then turn to teaching at the ICHEC, where I had the opportunity to be taken on as a teaching assistant within the North-South module and the Housing Project. I was, and still am driven by the desire to train management students to view the world around them with different eyes, to better understand what is happening in the southern half of our planet and, above all, to become responsible managers at the human, environmental, economic and social levels. The loop was closed. Well, almost. All that was needed was a doctoral thesis to put all this experience into perspective.

Préambule

Cette thèse n'aurait pas été ce qu'elle est sans l'influence de mon parcours personnel et professionnel, qui a sans cesse remis en question mon regard sur la vie, sur le monde, sur les hommes.

Née dans une famille d'immigrés italiens installés en Belgique (Charleroi) à la fin de la Seconde Guerre mondiale, j'ai grandi dans un environnement généreux et protecteur, où on pousse chacun à aller plus loin pour sortir d'un environnement autrefois précarisé. Mon arrivée à Bruxelles pour y réaliser mes études en Sciences économiques et gestion (ICHEC), a été une révélation, une opportunité de m'ouvrir au monde. En deuxième année, j'ai participé au ICHEC Housing Project, un projet d'échange interculturel où les étudiants se rendent un mois en Inde, au Burkina Faso ou au Bénin pour y découvrir d'autres réalités, d'autres manières de penser, tout en travaillant dans un projet social local. Je suis partie au Burkina Faso durant trois années consécutives, tellement ce projet m'a apporté et parce que je voulais encore mieux comprendre nos différences culturelles tout comme nos nombreux points communs. J'étais à la fois fascinée et à la fois fortement attachée. Je m'y sentais comme à la maison, peut-être parce que je retrouvais la dynamique communautaire, très présente dans la culture italienne également. En parallèle, j'ai également choisi l'option Nord-Sud à l'ICHEC (ancienne option Economie des pays en développement) qui me permettait de compléter mon expérience de terrain avec des cadres plus théoriques ou encore l'expérience d'enseignants aguerris. A la fin de mes études, je pressentais que la carrière classique dans une grande entreprise qui se destinait à beaucoup d'étudiants en gestion, ne serait peut-être pas tout à fait taillée pour moi. Néanmoins, j'ai voulu aller découvrir le monde du business classique, en travaillant deux ans dans une entreprise de consultance à Bruxelles. Cependant, fortement liée au Burkina Faso, je devais continuer à garder le contact et, dans mon temps libre, j'y ai développé un projet dans le secteur de l'éducation. J'y ai également rencontré mon époux en 2007. Durant mes deux années dans le secteur privé à Bruxelles, j'ai été bien formée, avec de nombreux outils acquis mais je ne percevais pas le sens de mon travail. Je ne comprenais pas à quoi ni même à qui mon travail servait. J'ai donc quitté ma voiture de société et une perspective salariale prometteuse pour m'engager comme coopérante dans une ONG belge et travailler en zone rurale au Burkina Faso, dans le secteur agricole de l'économie sociale et solidaire. C'est pourquoi ce secteur fut important à investiguer dans la thèse. En vivant sur place, j'ai alors découvert que le monde de la coopération au développement n'était pas non plus le milieu idéal que je m'imaginais. J'ai très mal vécu les nombreuses incohérences entre théorie et pratique, entre le siège et le partenaire

local que j'étais sensée accompagner, ou encore les pratiques parfois borderline sur le terrain. Bref, j'étais frustrée de voir les sommes importantes à disposition et le peu de résultats concrets en pratique. Néanmoins, ce triste constat a eu l'avantage de pousser mes questionnements en profondeur et sans cesse y chercher les réponses adéquates. Forte de ces expériences, c'est donc tout naturellement que mon parcours professionnel s'est ensuite dirigé vers l'enseignement à l'ICHEC, où j'ai eu l'opportunité d'être engagée comme enseignante au sein de l'option Nord-Sud et du Housing Project. J'étais et suis toujours mue par la volonté de pouvoir former les étudiants en gestion, à mettre d'autres lunettes sur le monde qui les entoure, à mieux comprendre ce qui se passe dans l'autre moitié sud de notre planète et surtout à devenir des managers responsables sur le plan humain, environnemental, économique et social. La boucle était bouclée. Enfin presque. Il ne manquait plus qu'une thèse de doctorat pour mettre toute cette expérience en perspective.

Abstract

Africa is a vast continent, made fascinating by its cultural wealth and striking by the many challenges it faces, too often misunderstood by some people and stereotyped by others. Research has a major role to play in understanding the issues and dynamics at play by looking through a lens other than the traditional Western one. This is the modest mission I gave myself in this thesis, during seven years of research.

Everything is yet to be explored in Africa. Long before colonisation, a multitude of economic activities already abounded, thanks to individuals or groups of individuals who organised themselves to ensure their subsistence by setting up activities that were carried out for their mutual and collective well-being (Fall & Guèye, 2003; Defourny & Develtere, 1999, Kamdem, 2016). These could take different forms: village groups, social and solidarity economy enterprises, cooperatives, social enterprises, and so on. These activities have evolved, have adapted themselves to the many changes that have occurred on the continent. Faced with the diversity of these initiatives, many academics are seeking to better understand entrepreneurship in Africa (Bruton, Ahlstrom, & Obloj, 2007; Devine & Kiggundu, 2016; George, Corbishley, Khayesi, Haas, & Tihanyi, 2016; George et al., 2016; Kamdem, 2001b; Kolk & Rivera-Santos, 2018; Kshetri, 2011). My research attempts to contribute to this endeavour by understanding how Sub-Saharan African (SSA) entrepreneurs access resources in an uncertain context, the types of strategy they apply, and the impact this has on their level of development. My objective is twofold: what can we learn from these dynamics for our own development models and theories? Conversely, how can this research be used to support entrepreneurs in their field? Three papers will try to answer these complex questions by examining the uncertain waste management sector in Ouagadougou, Burkina Faso.

The first paper depicts the practices implemented by eight entrepreneurs in response to the resource constraints imposed by their uncertain environment. To this end, I use the resource dependence theory elaborated by Pfeffer & Salancik (1978), which makes it possible to determine the resources required by entrepreneurs, the dependences they face in the waste management sector, and the strategies they develop to cope with these constraints. I find three dominant strategies among entrepreneurs, which lead to different levels of development. Some entrepreneurs implement ‘bypass’ strategies that produce growth, others adopt ‘compliance’ strategies resulting in a permanent, survival situation, and a third group of entrepreneurs prefer to use ‘avoidance’ strategies that allow them to achieve a relative stable development over time.

The second article examines how four of the entrepreneurs in the case studies perceive their capacity to access resources in an uncertain environment. More specifically, I use cognitive entrepreneurship (Baron, 2004; Mitchell, Busenitz, et al., 2002) to explore different types of resource-mobilisation practices that may be observed in a similar uncertain context and relate these practices to different perceptions of resource accessibility. I find that the diverse approaches to resource accessibility are associated with the different ways in which entrepreneurs perceive environmental uncertainty (which is not necessarily seen as negative), their venture's mission (for-profit or not-for-profit) and their self-perception. Three possible 'perception-practice' patterns are identified; I suggest that these shed light on different avenues for African entrepreneurs to access resources and position themselves in between local traditions and international influences.

The third paper burrows deeper in the dissertation's central question by asking whether an entrepreneur's temporal orientation may shape the construction of resources in the challenging context of developing countries. Based on Lévi-Strauss' concept of bricolage (1962), the analysis reveals that the perception of time is a main discriminating dimension among three types of entrepreneurs; it shows three patterns of dealing with temporality, i.e.: cyclical, linear, and mixed, and two types of resource mobilisation processes, i.e.: imposed and deliberate bricolage. Entrepreneurs who approach time in a cyclical way behave like bricoleurs in the sense proposed by Lévi-Strauss (1962) whereas those who demonstrate a more linear approach resemble engineers. By contrast, a third category of entrepreneurs play with cyclical and linear views of time in their responses to the dual temporality of their context. These three different approaches to time among entrepreneurs have two different outcomes in terms of resource mobilisation and bricolage techniques. First, even if some entrepreneurs prefer optimisation techniques, bricolage is imposed on them when they feel under the pressure of contextual constraints and are problem-oriented in their resource mobilisation process. Second, bricolage is deliberate when mobilising resources through bricolage is a choice guided by the perception that their environment has a wealth of opportunities. These entrepreneurs are likely to align their temporal approach with the complex environment, resulting in a better development path than entrepreneurs employing imposed bricolage, who tend to maintain the status quo, attempting either simply to survive or to stabilize their venture. These results advance the emerging theory of entrepreneurial bricolage (Baker & Nelson, 2005).

To conclude, the integration of the different findings leads to a typology of entrepreneurs according to an ideal-type approach. Three different categories of entrepreneurs operate in the same uncertain context, but their divergent strategies to access resources lead to success for some of them, whereas others experience problems. For each entrepreneur, the cognitive and metaphysical dimensions are decisive. These categories of entrepreneurs make it possible, at a theoretical level, to reconsider theories in entrepreneurship and, at a more practical and political level, to rethink the dominant economic models of development. Nevertheless, as with any research, this dissertation has its limitations, but some avenues are available to bypass them in future research.

Résumé

L'Afrique est un vaste continent, fascinant par sa richesse culturelle et étourdissant de par les nombreux défis auxquels il doit faire face. Trop souvent incompris, par les uns, stéréotypés par les autres, la recherche a un rôle prépondérant à jouer pour permettre de comprendre les enjeux et dynamiques qui s'y jouent, en jetant un autre regard, différent du point de vue occidental classique. C'est la mission que je me suis donnée au travers de cette thèse, modestement, depuis sept années de recherche.

Tout est encore à explorer en Afrique. Depuis toujours, avant même la colonisation, une multitude d'activités économiques foisonnent, grâce à des individus ou groupes d'individus qui s'organisent pour assurer leur subsistance, en mettant en place des activités qui sont menées pour un mieux-être mutuel et collectif (Fall & Guèye, 2003; Defourny & Develtere, 1999, Kamdem, 2016). Elles peuvent prendre différentes formes : groupements villageois, entreprises d'économie sociale et solidaire, coopératives, entreprises sociales, etc. Ces activités ont évolué, se sont adaptées, au fur et à mesure des nombreux changements apparus sur le continent. Face à la diversité de ces initiatives, beaucoup de chercheurs tentent de mieux appréhender l'entrepreneuriat en Afrique (Bruton et al., 2007; Devine & Kiggundu, 2016; George et al., 2016; Kamdem, 2001b; Kolk & Rivera-Santos, 2018; Kshetri, 2011). Ma recherche veut apporter sa pierre à l'édifice en tentant de comprendre comment les entrepreneurs en Afrique subsaharienne accèdent aux ressources nécessaires dans un contexte incertain, via quelles formes de stratégies, et quel impact cela a-t-il sur leur niveau de développement organisationnel. Mon objectif est à double sens : que peut-on apprendre de ces dynamiques pour nos propres modèles et théories de développement ? A l'inverse, comment cette recherche peut-elle être utilisée pour accompagner les entrepreneurs sur leur terrain ? Trois papiers tenteront de répondre à ces questions complexes en examinant le secteur incertain de la gestion des déchets à Ouagadougou, au Burkina Faso.

Le premier article brosse un portrait des pratiques mises en œuvre par huit entrepreneurs pour accéder aux ressources en réponse aux contraintes de leur environnement incertain. Pour ce faire, j'utilise la théorie de la dépendance aux ressources élaborée par Pfeffer & Salancik (1978), qui permet de déterminer les ressources nécessaires aux entrepreneurs, les dépendances auxquelles ils sont confrontés ainsi que les stratégies qu'ils mettent en place pour réduire ces contraintes. Les résultats font apparaître trois stratégies dominantes chez les entrepreneurs qui conduisent à des niveaux de développement différents. Certains entrepreneurs mettent en œuvre

des stratégies de contournement qui produisent de la croissance, d'autres adoptent des stratégies de conformité créant une situation de survie permanente et un troisième groupe d'entrepreneurs utilisent plutôt des stratégies d'évitement qui leur permettent d'atteindre un développement relativement stable dans le temps.

Le deuxième article examine comment quatre entrepreneurs parmi huit cas d'étude perçoivent leur capacité d'accéder aux ressources dans un environnement incertain. Plus précisément, j'utilise l'entrepreneuriat cognitif (Baron, 2004; Mitchell, Busenitz, et al., 2002) pour explorer les pratiques de mobilisation des ressources que je relie à différentes perceptions de l'accessibilité à ces ressources. Les résultats montrent que les diverses approches de l'accessibilité aux ressources sont associées à différentes façons dont les entrepreneurs perçoivent l'incertitude environnementale (qui n'est pas nécessairement perçue comme négative), la mission de leur entreprise (à but lucratif ou non lucratif) et leur perception de soi. Trois modèles possibles de "perception-pratique" sont identifiés, et permettent d'éclairer différentes voies par lesquelles les entrepreneurs africains accèdent aux ressources et se positionnent entre traditions locales et influences internationales.

Le troisième article creuse la question centrale de la thèse en examinant comment l'orientation temporelle des entrepreneurs façonne la construction des ressources dans le contexte difficile des pays en développement. En se basant sur le concept de bricolage de Lévi-Strauss (1962), l'analyse révèle la perception du temps comme une dimension principale de discrimination entre trois types d'entrepreneurs et montre trois modèles de gestion de la temporalité : cyclique, linéaire et mixte, et deux processus de mobilisation des ressources : le bricolage imposé et le bricolage volontaire. Les entrepreneurs qui abordent le temps de manière cyclique, se comportent comme des bricoleurs au sens de Lévi-Strauss (1962) alors que ceux qui font preuve d'une approche plus linéaire, ressemblent aux ingénieurs. En revanche, une troisième catégorie d'entrepreneurs joue avec des conceptions cycliques et linéaires du temps en répondant à la double temporalité de leur contexte. Ces trois approches différentes du temps chez les entrepreneurs ont deux implications différentes en termes de mobilisation des ressources et de techniques de bricolage. Premièrement, même si certains entrepreneurs préfèrent les techniques d'optimisation, le bricolage s'impose lorsqu'ils se sentent sous la pression des contraintes environnementales et sont orientés-problèmes dans leur processus de mobilisation des ressources. Inversement, le bricolage est volontaire lorsque la mobilisation des ressources par le biais du bricolage est un choix guidé par la perception que leur environnement est riche en

opportunités. Ces entrepreneurs sont susceptibles d'aligner leur approche temporelle sur l'environnement complexe, ce qui se traduit par un meilleur niveau de développement que les entrepreneurs qui ont recours au bricolage imposé. Ces derniers ont tendance à maintenir le statu quo pour tenter soit de survivre, soit de stabiliser leur entreprise. Ces résultats contribuent à développer la théorie émergente du bricolage entrepreneurial (Baker & Nelson, 2005).

Pour conclure, l'intégration des différents résultats montre une typologie d'entrepreneurs selon un idéal-type. Pour accéder aux ressources, trois catégories d'entrepreneurs opèrent sur un même contexte incertain mais leurs différentes stratégies mènent à un niveau de développement positif chez les uns et plus problématique chez les autres. La dimension cognitive et métaphysique de chaque entrepreneur est déterminante. Ces catégories d'entrepreneurs permettent, à un niveau théorique, de réinterroger les théories en entrepreneuriat et à un niveau plus pratique et politique, de repenser les modèles économiques dominants de développement. Néanmoins, comme toute recherche, cette thèse présente des limites et quelques pistes pour les contourner dans de futures recherches.

Table of contents

Acknowledgements	iii
Remerciements	vii
Preamble	xi
Préambule	xiii
Abstract	xv
Résumé	xix
Table of contents	xxiii
List of figures	xxvii
List of tables	xxix
1. INTRODUCTION	1
1.1. Motivations	1
<i>1.1.1. Empirical motivations</i>	1
1.1.1.1. Entrepreneurship in Africa	1
1.1.1.2. The waste management sector: a challenging field for entrepreneurship closely linked to the Sustainable Development Goals	2
1.1.1.3. Diversity of the organisational landscape	4
<i>1.1.2. Theoretical motivations</i>	4
1.1.2.1. Context management and entrepreneurship research	5
1.1.2.2. A subjective view of uncertainty	6
1.1.2.3. Theoretical lenses	7
1.2. Research design	9
<i>1.2.1. Research philosophy: epistemology and methodology</i>	9
<i>1.2.2. Research objective and questions</i>	11
<i>1.2.3. Research context: the waste management sector of Ouagadougou</i>	12
<i>1.2.4. Data collection</i>	17
<i>1.2.5. Case studies</i>	18
1.3. Outline of the dissertation	21
2. Paper I: Resource dependence strategies in an extreme uncertain context	23
2.1. Introduction	23
2.2. Theoretical background	24
2.3. Research site and methods	27
<i>2.3.1. Research context</i>	27
<i>2.3.2. Data collection and analysis</i>	28
2.4. Findings	31
2.4.1. Critical resources	31
2.4.2. Nature of dependences	33

2.4.3.	<i>Types of strategy to manage dependences</i>	37
2.4.4.	<i>Effectiveness of strategies and development paths</i>	42
2.5.	Discussion	45
3.	Paper II: Entrepreneurial perceptions and access to resources in uncertain environments: the case of waste collection entrepreneurs in Ouagadougou, Burkina Faso	49
3.1.	Introduction	49
3.2.	Theoretical background	51
3.3.	Research site and methods	54
3.3.1.	<i>Research context</i>	54
3.3.2.	<i>Data collection and analysis</i>	55
3.4.	Findings	59
3.4.1.	<i>Entrepreneurial perceptions</i>	59
3.4.1.1.	Perception of environmental uncertainty.....	59
3.4.1.2.	Perception of venture mission.....	60
3.4.1.3.	Self-perception.....	62
3.4.2.	<i>Accessing resources</i>	63
3.5.	Discussion	68
4.	Paper III: The Role of Time in Entrepreneurial Bricolage: Insights from Sustainable Venturing in Burkina Faso	73
4.1.	Introduction	73
4.2.	Theoretical background	75
4.2.1.	<i>Time and entrepreneurship</i>	75
4.2.2.	<i>Time and resource mobilisation: the roots of bricolage theory and the importance of metaphysics</i>	76
4.3.	Research approach & methods	80
4.3.1.	<i>Research context</i>	80
4.3.2.	<i>Data collection</i>	81
4.3.3.	<i>Data coding and analysis</i>	83
4.4.	Findings	86
4.4.1.	<i>Patterns of dealing with temporality</i>	87
4.4.1.1.	Cyclical view of time.....	87
4.4.1.2.	Linear view of time.....	87
4.4.1.3.	Mixed view of time.....	88
4.4.2.	<i>Resource mobilisation processes</i>	89
4.4.2.1.	Imposed bricolage.....	90
4.4.2.2.	Deliberate bricolage.....	92
4.5.	Discussion	94
5.	DISCUSSION	101
5.1.	Integration of findings	101

5.2. Theoretical contributions.....	106
5.2.1. <i>Typologies of African entrepreneurs.....</i>	107
5.2.2. <i>Context & entrepreneurship studies.....</i>	110
5.2.3. <i>Collective vs individual dimensions of entrepreneurship in an African context</i>	112
5.2.4. <i>Critical perspective on central concepts</i>	118
5.3. Practical contributions.....	120
5.4. Limitations and future avenues for research.....	124
6. REFERENCES	129
Appendix. Typology of data collection	139
I. Interviews.....	139
II. Participant observation.....	144
III. Documents.....	145

List of figures

- Figure 1-1. Waste management chain of Ouagadougou16
- Figure 1-2. Pictures of the waste management chain.....16
- Figure 2-1. Network of resources and actors involving waste collection ventures of Ouagadougou32
- Figure 2-2. System of interdependences of waste collection ventures in Ouagadougou33
- Figure 2-3. Typology of development paths linked with strategies45
- Figure 3-1. Data structure58
- Figure 4-1. Conceptual model.....96
- Figure 5-1. Integration of the three papers104

List of tables

Table 1-1: Research questions..... 11
Table 1-2: Overview of data collection 17
Table 2-1: Case studies..... 30
Table 2-2: Strategies of waste collection entrepreneurs 37
Table 2-3: Categories of dominant strategies 44
Table 3-1: Overview of case studies 57
Table 3-2: Entrepreneurs’ perceptions and their role in shaping resource-accessing approach..... 67
Table 4-1: Case studies’ profiles 82
Table 4-2: Coding scheme..... 84
Table 5-1: Synthesis of research questions and answers 103

1. INTRODUCTION

This dissertation deals with the strategies of Sub-Saharan African (SSA) entrepreneurs, who manage to overcome the constraints of their challenging environment by mobilising the resources required for their activities. Before writing this dissertation, my empirical and theoretical paths developed considerably according to my approach to research and, mainly, my research motivations, which will be detailed below.

1.1. Motivations

The motivations behind the dissertation were numerous. They originated from the field and then led to an interest in theoretical questions emerging from the studied phenomenon.

1.1.1. Empirical motivations

1.1.1.1. Entrepreneurship in Africa

Promoting entrepreneurship is becoming a central topic in Africa, mainly to boost the private sector and reduce poverty. Entrepreneurship is everywhere: in national policies, university programmes, government aid programmes, and in projects managed by local and international institutions (Devine & Kiggundu, 2016; Vermeire & Bruton, 2016).

In fact, African entrepreneurship rates are among the highest in the world (Bosma & Kelley, 2018). In Burkina Faso, for instance, entrepreneurship is considered a major career choice; in 2016, the Global Entrepreneurship Monitor (GEM) reported that this country was the leader among the 65 countries participating in the GEM survey, with a Total Entrepreneurial Activity (TEA) rate at 34% (composed of nascent entrepreneurship rate and new business ownership rate) (Song-naba & Toé, 2017). The same report also showed that 77% of the population felt capable of undertaking an entrepreneurial activity and an impressive 64% even intended to start a business. These exceptional figures highlight the fact that it is essential today to understand the entrepreneurial phenomenon in order to provide adequate support.

At the same time, the needs of African countries are numerous in many sectors: poverty indicators are among the highest, with 41% of the sub-Saharan population living with less than US\$1.90 a day in 2015 (World Bank, n.d.). Entrepreneurship is therefore often seen as a miracle solution that should complement the work of the public sector (Devine & Kiggundu, 2016; Vermeire & Bruton, 2016). For the above reasons, this dissertation investigates how entrepreneurs could efficiently serve Africa's needs, more specifically in Burkina Faso and in

the sector for the empirical fieldwork, i.e. waste management. Moreover, a major practical purpose is to provide guidance to entrepreneurs in order that they become stronger and ensure the development of their venture.

At the political level, Kshetri (2011) noted that many African countries had made little progress in promoting entrepreneurship. Yet, under the pressure of globalisation and international economic policies, the formerly dominant public sector was forced to liberalise the economy, in particular for the benefit of entrepreneurs (Kamdem, 2002). African entrepreneurs are now essential actors to be reckoned with and it is crucial to enable them to develop in a supportive business climate. As such, my intention is that this research should be used both by national and international policy makers to develop relevant programmes fostering entrepreneurship in Africa. Because the waste management sector is now operated by private entrepreneurs, it is in the interest of Burkinabe local authorities to understand better how entrepreneurial success can be ensured. Therefore, I hope that this study will enable them to take entrepreneurs' needs into consideration, particularly within an inclusive and participatory decision-making process.

Finally, within the cooperation development sector, entrepreneurship is also becoming a panacea (Devine & Kiggundu, 2016). As for public policies, the dissertation can help building appropriate development programmes that support entrepreneurship in Africa, especially in the waste management sector.

1.1.1.2. The waste management sector: a challenging field for entrepreneurship closely linked to the Sustainable Development Goals

The waste management sector in Burkina Faso emerged as an interesting setting for three main reasons. First of all, the growing involvement of development organisations in this sector in Africa offers a potentially rich practical contribution, especially in relation with several United Nations sustainable development goals (SDGs) (Wilson et al., 2015). Second, even if there is an emerging literature on waste collectors, knowledge about this sector is almost inexistent in the management field (Holt & Littlewood, 2017). Finally, the sector is dynamic owing to the diversity of its organisational forms and actors, i.e. for-profit entrepreneurs, not-for-profit ventures, informal individual entrepreneurs and ventures, public actors, and so on.

Like many African countries, Burkina Faso has seen its population grow in major cities since it gained independence in 1960 (George et al., 2016; Monga & Lin, 2015; World Bank, n.d.). This urbanisation phenomenon put pressure on a country that already faced many challenges in

all basic sectors, such as education, health, or employment. According to the Human Development Index (HDI), Burkina Faso is ranked 183 out of 189 countries (UNDP, 2017). Among the challenges it faces, sustainable development is becoming a growing concern, even if it is not yet a priority. With a soaring population, especially in major cities, the need to manage waste effectively is becoming crucial.

Underpinned by the desire to improve the work of entrepreneurs, the thesis will address several sustainable development goals, which have become unavoidable issues handled by all countries in the world (Wilson et al., 2015). If entrepreneurs are more effective, their success will have an impact at several levels. Indeed, there are numerous harmful effects of waste as regards the environment and health. If not properly disposed of and treated, waste pollutes the soil, water sources and the landscape, and allows millions of insects and germs to grow (Medina, 2010; Post, 1999; Wilson, 2007), issues included in SDG 3 ‘sustainable cities and communities’ and SDG 6 ‘clean water and sanitation’. The impact of waste on population health is also considerable: an effective waste collection service means fewer microbes and diseases, particularly malaria, which is responsible for millions of deaths each year in Africa (Medina, 2010). This is an issue handled by SDG 11 ‘good health and well-being’. Finally, the entrepreneurs of the sector employ highly marginalised workers, often widows who live in bad conditions and are unlikely to have any other income to support themselves and their children (Holt & Littlewood, 2017; Wilson et al., 2015), which relates to SDG 1 ‘no poverty’ and SDG 8 ‘decent work and economic growth’.

Moreover, in line with the SDGs, the development cooperation sector is setting up many projects linking entrepreneurship and the waste management sector. Enabel, which implements Belgium's development policies in the South, is mainly present in Africa and manages several waste-related projects. Enabel staff support their local partners in the construction of waste collection, treatment and recycling facilities. They also train municipalities and regions in integrated waste management and urban sanitation (Enabel, 2016). For example, a waste management project is being implemented in Guinea with entrepreneurs and residents of the capital Conakry (Enabel, 2019). Another example was a paving project based on recycled waste in Burundi.

At the non-governmental level, not-for-profit ventures and NGOs are also increasingly concerned about waste management. In Belgium, the NGO Autre Terre has developed several programmes for the social and solidarity economy in the waste management sector, particularly

in Burkina Faso and Senegal. The NGO Défi Belgique Afrique is also starting to launch actions in this field in Burkina Faso. Moreover, through my many meetings with several stakeholders, I met with a passionate interest and eagerness to learn about the results of the research. The thesis will therefore be useful in understanding how to provide better support to local partners and set up appropriate projects with them.

1.1.1.3. Diversity of the organisational landscape

The waste management sector in Africa, particularly in Burkina Faso, is characterised by a multitude of actors operating at various levels. Some of them collect the waste, others recycle parts of it, such as plastic, paper or organic waste that is transformed into compost. There is a profusion of actors in the sector: organisational diversity ranges from SMEs, associations, and former cooperatives, to individual entrepreneurs, formal entrepreneurs (registered at national level) and informal entrepreneurs of various types. Informality takes different aspects. It may concern individuals who collect and/or recycle waste as a subsistence activity. I also met entrepreneurs who managed a company that was registered, but had no authorisation to work in the waste sector.

All these actors are driven by various objectives, for profit or not. Some of them simply want to support themselves and their families. Others want to expand and/or seek recognition. Sometimes individual, collective and entrepreneurial objectives are intertwined and the boundaries between for-profit and not-for-profit and/or formal and informal become very blurred. This observation makes it difficult to characterise entrepreneurs and their ventures.

In addition, all these actors operate in a very changing and uncertain context. They implement different strategies and mobilise various resources that lead to various development trajectories — some barely survive while others prosper. The wealth of actors and trajectories lies at the basis of the theoretical questioning of the thesis: *how can we understand the complexity of this diversity? How can we characterise these different actors and understand their entrepreneurial practices?*

1.1.2. Theoretical motivations

As the thesis progressed through the definition of empirical questions, the issues were examined from a theoretical standpoint, identifying resonance and theoretical gaps in different strands of the literature. Since the research studies entrepreneurs and organisations on a specific continent (Africa) and in a particular sector (waste management), I will first show how the role of context

is addressed in management and entrepreneurship theories. Second, because the context of the waste sector is considered to face a high level of uncertainty, I will seek to understand the concept of uncertainty, particularly environmental uncertainty. Finally, I will go through the various theoretical lenses that I used to deepen my investigations about the diverse resource mobilisation practices exploited by entrepreneurs to navigate their uncertain environment.

1.1.2.1. Context management and entrepreneurship research

Emphasising the importance of context-focused research, several authors point out the lack of theoretical and empirical studies on entrepreneurship and management in Africa, particularly in francophone countries (Devine & Kiggundu, 2016; George et al., 2016; Kolk & Rivera-Santos, 2018; Kshetri, 2011). Most studies are concentrated in Anglophone African countries with the highest GDP such as South-Africa, Ghana, Nigeria and Kenya (George et al., 2016). Furthermore, the quality of entrepreneurship studies in African settings needs to be improved to gain better representation in entrepreneurship journals (Devine & Kiggundu, 2016; Kolk & Rivera-Santos, 2018). As Africa-focused research is highly fragmented at the theoretical and empirical level, it is therefore still difficult to know the specificities of African entrepreneurship and management and how the setting can help develop new and existing theories (Devine & Kiggundu, 2016; George et al., 2016).

In the same vein, another theoretical motivation of the dissertation is to examine how African entrepreneurship resonates with Western-based entrepreneurship theories and potentially refine them. Indeed, as other authors, I observe that most entrepreneurship theories are rooted in Western logics, ways of thinking, because mainly developed by international scholars and through traditional empirical fields in Europe and North America (Bruton et al., 2007; Reinecke & Ansari, 2015; Vermeire & Bruton, 2016). In addition, studying non-Western contexts can challenge existing assumptions of current theories, particularly because there is no consensus on the role of context in management and entrepreneurship theories, between context-specific, context-free or context-bound knowledge (Kolk & Rivera-Santos, 2018; Tsui, 2007; Welter, 2011; Welter & Gartner, 2011). The objective of the research is also to participate in this debate and to make African contexts more visible in the general entrepreneurship research. In particular, the history of the African continent enriches context studies, namely with the impact of the West, through the colonisation until the 1960s and the imported development policies in the 1990s (Kolk & Rivera-Santos, 2018).

1.1.2.2. A subjective view of uncertainty

The context — or ‘environment’ — of the researched entrepreneurs is characterised by a high level of uncertainty. For thirty years, the waste management sector has been the subject of several national and international programmes (Bouju & Ouattara, 2002; Sory & Tallet, 2012; Traoré, 2011). Hence, the various actors operating in the sector have been confronted with many transformations, particularly in the capital of the country, Ouagadougou. This changing environment has brought a great deal of uncertainty. So, the challenge for the thesis was to understand how organisations and entrepreneurs in the sector cope with this uncertainty.

Uncertainty is a key but wide concept, defined in many ways in the management and entrepreneurship literature (Duncan, 1972; Jauch & Kraft, 1986; Knight, 1921; Lipshitz & Strauss, 1997; Milliken, 1987). Uncertainty is often associated with risk and decision-making processes. As opposed to risk, uncertainty cannot be calculated beforehand and is usually considered a major constraint on effective decision-making (Brouwer, 2002; Lipshitz & Strauss, 1997).

A first strand of the literature addresses the notion of uncertainty as a normative, objectifiable concept (Jauch & Kraft, 1986). This assumes that environmental uncertainty can be seen in the same way by all entrepreneurs and ventures, who can sometimes try to control it. Nevertheless, the concept of uncertainty has evolved considerably, leading to the emergence of new literature. This body of research states that uncertainty cannot be understood outside its context and the actors who experience it (Brouwer, 2002; Duncan, 1972; Lipshitz & Strauss, 1997; Milliken, 1987). From then on, many authors began to be more interested in the cognitive aspects of environmental uncertainty.

In the light of psychology, economics, and management literature, Duncan (1972), Lipshitz & Strauss (1997), McMullen & Shepherd (2006) have pointed out that the conceptualisation of uncertainty is a subjective experience in that ‘different individuals may experience different doubts in identical situations’. Milliken (1987) studied three types of perceived environmental uncertainty experienced by organisation leaders. The ‘state uncertainty’ means that individuals do not know how to anticipate changes in their environment. The ‘effect uncertainty’ concerns the inability to predict how uncertainty will affect the venture. The ‘response uncertainty’ is defined as the inability to predict the effect of a potential response to environmental uncertainty. On the basis of a review of the literature on uncertainty, Lipshitz & Strauss (1997) have suggested that organisations use three different types of strategies to deal with uncertainty:

reducing uncertainty (by collecting more information or improving the predictability of events), acknowledging uncertainty (by anticipating and integrating potential changes in the activity) and suppressing uncertainty (by ignoring undesirable information).

Nevertheless, the perception of environmental uncertainty, even if it carries some theoretical significance in the literature, remains problematic in empirical research, to have a reliable and relevant interpretation of the results (Milliken, 1987). As entrepreneurs' strategic choices are affected by the way they perceive environmental uncertainty (Milliken, 1987), I suggest that to understand uncertainty coping strategies, one must first understand how entrepreneurs apprehend their environment, particularly their resource environment and uncertainty in this particular environment.

1.1.2.3. Theoretical lenses

A first exploratory study in the waste management sector of Ouagadougou (Burkina Faso's capital) allowed me to identify interesting avenues of research and to formulate the central research question of the thesis: *How can we explain the diversity of resource-mobilising strategies adopted by entrepreneurs in relation to the uncertainty and complexity of their context?*

During the collection of data, I noticed that organisations were facing a changing sector, which involved a variety of entrepreneurial behaviours. Indeed, the ways in which they mobilised the resources needed for their activity were very diverse. I also realised that some of them were experiencing many difficulties while others were very successful, even though they operated within the same objective environment. Therefore, a first research objective in Paper I was to understand how these ventures mobilise resources to deal with the uncertainty of their environment. To tackle this objective, resource dependence theory (RDT) seemed well suited. First, RDT makes it possible to analyse the strategies of organisations that try to reduce the constraints created by their uncertain environment (Pfeffer & Salancik, 2003). Second, RDT is mainly based on European and American empirical settings, and therefore needs to be tested in other settings (Pfeffer & Salancik, 2003). Third, Sub-Saharan Africa (SSA) is mainly characterised by severe resource constraints that lead to poverty (George et al., 2016; Vermeire & Bruton, 2016). Given that entrepreneurship is often viewed as a solution to poverty, scholars call for a better understanding of these complex 'resource-scarce' environments and their impact on entrepreneurship (Bruton et al., 2007). Therefore, I assumed that organisational theories such as resource dependence could shed light on African settings. New contributions

in this area would also help gain a perspective on how entrepreneurs could mobilise their resources better and overcome their challenging environment (Devine & Kiggundu, 2016; George et al., 2016).

As the analysis in Paper I progressed, the data collection made me realise that the main research object of the thesis was no longer the organisation but the entrepreneur, i.e. the person leading the organisation, because after the creation of a venture, its strategy had mainly been designed and implemented by the entrepreneur. This led me to modify the unit of analysis in the thesis, thus moving from the object 'venture' to the object 'entrepreneur' (details can be found in Paper I, page 28). Therefore, the theoretical lens of the dissertation also moved from organisational theories to entrepreneurship theories.

Moreover, even if Paper I successfully identified entrepreneurial strategies, it was not sufficient to answer the main questions of the paper i.e. to explain the diverse resource mobilisation practices. Therefore, in Paper II, I worked with a cognitive perspective of entrepreneurship in order to study the resource accessing perceptions of entrepreneurs. Devine & Kiggundu (2016) have invited us to examine entrepreneurship by looking at differences among entrepreneurs' personalities, thought processes, education, prior experience and other individual characteristics. Cognitive ability, self-efficacy, and locus of control are among individual traits that affect the success of entrepreneurs as they use them to solve everyday challenges. Furthermore, research examining entrepreneurial cognition in Africa remains scarce (Unger, Keith, Hilling, Gielnik, & Frese, 2009; Urban, 2010).

In Paper III, I delved deeper into the analysis of entrepreneurial cognition by studying the role of time in accessing resources, time being understood both as an element belonging to the entrepreneur's metaphysics and a social construct (Duymedjian & Rüling, 2010; Lévi-Strauss, 1962). Indeed, time is often a factor of disharmony in the management of contexts impregnated with different cultures, as is often the case in Africa (Mosakowski & Earley, 2000; Reinecke & Ansari, 2015; Slawinski & Bansal, 2017). Moreover, the dissertation's objective was also to study the relevance and coherence of an entrepreneurial theory in a non-Western context. In this sense, the emerging theory of entrepreneurial bricolage, understood as the ability of entrepreneurs to make something out of nothing in a resource-constrained environment (Baker & Nelson, 2005), seemed suitable given that African environments are considered to be highly (standard) resource-poor. Since bricolage theory is emerging from Western contexts, I assumed that it is rooted in a Western conception of time. I expected to contribute to the theory by applying in an SSA empirical field.

1.2. Research design

In order to answer the dissertation questions rigorously, the research design will first be the subject of epistemological and methodological reflections, before the research objectives and questions are discussed. This section will then provide details about the research context, explain the whole data collection process, and present the various case studies.

1.2.1. Research philosophy: epistemology and methodology

My epistemological stance has been influenced both by my personal journey and by the theoretical anchors of the three papers. Trained in a business school, one would have thought that my epistemological posture would be the most classic, that is, positivist. Having had the opportunity to follow many courses in connection with the countries of the Global South and to spend some time on projects there, I soon adopted a critical stance and began to question myself and our economic model. In particular, a course on the intercultural approach to development taught by Thierry Verhelst made me aware of the ethnocentrism that prevailed in my teaching and in development policies.

Beyond these courses, my various stays in Burkina Faso only reinforced a critical look at the world. I have always been fascinated by ways of thinking that are completely different from our own, which has constantly pushed me to wear other 'glasses' to try and understand local realities as close as possible to those experienced by the Burkinabe themselves. It is therefore not by chance that my doctoral research mainly adopts, as the articles progress, a more subjectivist and interpretivist approach (Murdoch, 2010; Thiétart, 2014). Therefore, in each stage of data collection, I was careful not to influence actors' responses or make judgments.

At the beginning of the thesis, I launched an exploratory study in the waste management sector. The research questions and theoretical lenses came later. Consequently, the first data collection was purely inductive, using grounded theory techniques to better understand sectoral issues and bring out the research questions (Gioia, Corley, & Hamilton, 2013; Glaser & Strauss, 1967; Lejeune, 2014; Strauss & Corbin, 1997; Timmermans & Tavory, 2012). The second data collection was carried out after having determined the research questions and theoretical framework, so I followed a more abductive approach (Dubois & Gadde, 2002), except for the first paper of the thesis, which adopts a deductive process.

During interviews, the questions were sometimes open, so as not to lock up interviewees, sometimes more closed, following methods proposed by some of the authors who inspired my

theoretical framework. This was especially the case for the first paper of the thesis, which employed the resource dependence theory. It was only for that paper that I used a deductive perspective: my objective was to explore the context by testing resource dependence theory (RDT) to see whether it provides an understanding of resource mobilisation practices in an African setting. For example, I appropriated the method of Pfeffer & Salancik (1978) to weigh the criticality and importance of resources for each entrepreneur, thus asking closed questions.

However, I kept my interpretivist posture during the collection and analysis of data (Åsvoll, 2014; Murdoch, 2010). Indeed, even if I started from a theoretical framework rooted in an objectivist approach (RDT), I collected and analysed the data in a more subjective way, interpreting the actors' discourses as socially constructed. It is also for this reason that I carried out case studies, rather than an objective study of the sector as a whole, in Paper I. Since the deductive approach did not allow me to go deeper in the analysis and answer the general research questions, I adopted an abductive approach in the two following papers. I was then going back and forth between inductive and deductive reasoning in relation to the informants' discourses and the theory used. This will be developed in greater depth in each article.

In the second paper, I took the analysis further and tackled the questions with another perspective, namely Weick's perspective (1995) of how entrepreneurs individually interpret their environment. I tried to capture the perceptions of entrepreneurs, using the methods of cognitive entrepreneurship studies. I wished to understand how each of them enacted their context and find explanations for their divergent perceptions, so I logically continued with an interpretivist stance.

The third article of the thesis took me even further into my epistemological posture. Wishing to study the role of time in entrepreneurs' strategies, I followed several authors advocating a subjective rather than an objective approach to time. This was in line with the hypothesis that many theories, in particular that of entrepreneurial bricolage (Baker & Nelson, 2005), are rooted in Western worldviews and, therefore, are probably incompletely able to understand non-Western settings like Africa. Finally, the conclusion of the thesis, which adopts a critical stance, continues in the direction of interpretivism.

The dissertation follows a qualitative approach. This is the most appropriate and flexible approach to illuminate a phenomenon and meet the central objective of this research because it makes it possible to understand how actors perceive their environment, what their practices are,

and how they explain these (Åsvoll, 2014; Gioia, Corley & Hamilton, 2013; Lejeune, 2014; Nizet & Van Dam, 2014b; Yin, 1981).

Each paper uses several case studies. Case studies are particularly useful for exploring empirical phenomena within their context; they enabled me to give a voice to entrepreneurs and collect their stories as a basis for more theoretical analyses (Åsvoll, 2014; Devine & Kiggundu, 2016; Dubois & Gadde, 2002; Gibbert & Ruigrok, 2010; Yin, 1981). Devine & Kiggundu (2016) insist on the importance of case study in African research in order to grasp the uniqueness of African entrepreneurship, which can be lost in purely quantitative methods. Moreover, case studies allow various types of data collection methods to be combined (Eisenhardt, 1989). The main method of data collection was the interviews. Nevertheless, to reinforce my understanding of the whole sector and adjust my interpretation of the interview data, I used the method of participant observation and the collection of data published in several types of documents (see data collection section, page 17).

1.2.2. Research objective and questions

The main objective of the dissertation is to explain the resource-mobilising strategies adopted by different types of SSA entrepreneurs and ventures to deal with the uncertainty and complexity of their context. This objective leads to the formulation of several questions that will be addressed throughout the dissertation (see Table 1-1). They will be the common thread for the three papers developed hereafter.

Finally, thanks to the answers obtained to those research questions, I will answer several practical questions, i.e. what are the factors of success and failure of the strategies in this changing context, and how can entrepreneurs improve their effectiveness?

Table 1-1: Research questions

Central research question	How can we explain the diversity of resource-mobilising strategies adopted by entrepreneurs in relation to the uncertainty and complexity of their context?
Paper I	In uncertain contexts, where formal and informal practices intertwine, how do ventures react to the constraints imposed by their changing context in order to access critical resources?
Paper II	How can entrepreneurial perceptions help understand the diverse avenues through which African entrepreneurs access resources in an uncertain environment?
Paper III	How does an entrepreneur's temporal orientation shape resources construction in the challenging context of a developing country?

1.2.3. Research context: the waste management sector of Ouagadougou

In this section, I will depict the waste management sector, recent developments, challenges, difficulties and resources in order to better understand the specificities of the context.

Burkina Faso is a landlocked, sub-Saharan country located in West Africa. It is bordered by five countries: Ivory Coast, Mali, Niger, Togo, Ghana and Benin. The population is steadily growing and exceeded twenty million in 2018 (World Bank, n.d.), which is boosting urbanisation (George et al., 2016; World Bank, n.d.) and consequently, the waste issue. A former French colony, Burkina Faso became independent in 1960. Before colonisation, little waste — mainly organic — was produced. Such waste was thrown behind the yard of the house, in a space called ‘tampuré’ and was often reused as compost for agriculture. With the arrival of French colonisers and products from Europe, new types of waste appeared, such as plastic, cans, or paper and their collection was managed by the Colonial Administration.

After the country gained independence, waste management was taken over by the Burkinabe State. In 1986, the State created ONASENE, the National Office of Maintenance, Cleaning and Beautification Services, which held a monopoly on urban waste management in Burkina Faso. However, in the 1990s, in response to population growth in the capital and the public service’s inability to collect all the waste from the city, which was also expanding, the city saw the rise of several entrepreneurs and groups of entrepreneurs (not-for-profit ventures and cooperatives) who began to collect waste in their original districts. Some saw potential profit in this sector; others considered the activity adequate to provide a small income for the poorest people in the neighbourhood.

It was also around this time that international organisations began to focus on waste and some launched pilot projects in Africa, particularly in Ouagadougou. For example, the EAA (Pan-African Intergovernmental Agency for Water and Sanitation), collaborated with the municipality on the implementation of a new project organising waste management in disadvantaged sectors, thereby creating jobs. In particular, the EAA provided training to not-for-profit waste collectors, particularly on household awareness, as well as support for collection equipment, such as donkey carts. In 1995, in the midst of a period of decentralisation, ONASENE transferred its powers to the five districts of Ouagadougou. However, the municipalities did not have any financial resources to do an effective job.

It was also a time of structural adjustment policies (SAPs) imposed by the international community in order for developing countries to receive development assistance. These policies implied cutting public expenses (significant institutional reforms) and increasing revenues, in particular through economic liberalisation and the promotion of the private sector, and export, as driving forces for development. However, the SAPs had dramatic effects on all these countries, notably the disengagement of the State in essential sectors (health, education, etc.). Therefore, a multitude of ventures emerged to address numerous collective needs, sometimes thanks to technical and financial support by international donors (development cooperation, NGOs).

At that time, Ouagadougou became twinned with Lyon in France. The municipality of Grand Lyon sent dump trucks that only collected rubbish from bins placed in the central district (Baskuy). In 1996, the city produced 200,000 tons of waste per year (0.3kg/day/inhabitant) (Traoré, 2007). The World Bank also launched its third urban development project (1996–2000) and the country took its first steps towards professionalising the waste management sector under the SAPs. In 1998, the State adopted an environmental code and related decrees establishing the polluter-pays principle. In 2000, the Waste Management Master Plan (WMMP) was developed (Dessau-Soprin, 2000). This whole project, supported and financed by the World Bank, was designed to standardise the service.

In 2001, the municipality created the Cleanliness Department and the first official landfill. In 2003, it decided to launch a public-private partnership (PPP), thus to concede the collection areas to the private sector and issued a call for tenders. The principle is as follows: ventures that win an area will have to collect waste in that area from households, businesses, and public buildings in exchange for a fee paid directly by the households and businesses themselves. This fee amounts to between 500 and 2000 CFA francs a month (0.75 euro cents to 3 euros) depending on the standard of living of the household and the shop's turnover. In 2004, twelve collection areas were defined according to population density. This division is considered unfair because it does not take into account the financial capacity of residents, community mobilisation, or service problems (Sory & Tallet, 2012). As a result, some ventures gained a 'richer' area, i.e. have more businesses and/or households with higher incomes, especially the inner-city areas compared to the outskirts, which have a higher concentration of poorer people.

In 2005, the master plan was implemented. It promoted the emergence of the private sector at all stages of the waste management chain and waste collection. Both not-for-profit and for-profit ventures had to form Economic Interest Groups (EIGs) in order to respond to the call for

tenders. The call selected nine EIGs composed of several ventures and three for-profit ventures (two of which are also members of an EIG) to collect waste in the twelve areas. All selected ventures existed before the call for tenders, except one for-profit venture that quickly disappeared after the beginning of the work owing to financial problems and lack of experience, thus leaving an area without any waste collection service.

Most selected ventures won a 'new' area, which meant that they had to abandon their anchor area to another venture and 'conquer' a new one. This made things very complicated because many households did not want to subscribe to the new service, which is still the case. The municipality was supposed to raise public awareness of the obligation to subscribe to a collection service, but this has never been done due to a lack of resources. This issue is very problematic because the majority of the population is not aware that they are expected to pay for the collection of their waste. Many burn it on the street in front of their house, others throw it into landfills, gutters or vacant lots. This has serious environmental and health consequences, not to mention visual pollution throughout the city. The Burkinabe population struggles on a daily basis to feed themselves or send their children to school, so many households do not understand why they should have to pay for waste, which they consider of no value anyway. Others believe that it is up to the municipality to pay for this service. The image of waste from rural areas is therefore very different in the city (Bouju & Ouattara, 2002; Traoré, 2011) and this makes it difficult for entrepreneurs, who themselves have to convince households in their area to take out a subscription.

The same year, in 2004, the landfill became the Waste Treatment and Recovery Centre (WTRC), with one part dedicated to the sorting and treatment of plastic and organic waste. The WTRC was, and still is managed by a private company, also officially selected through a call for tenders. But unofficially, everyone knows that this company belongs to the former mayor of the city. In order to serve as a transit point before the final landfill (WTRC), 35 transit centres were built in the city and the bins in the centre itself were removed. EIGs and for-profit ventures must collect waste from their concession area and are normally the only ones allowed to deposit waste in transit centres. Here too, there are inequalities between collection ventures because transit centres have not been built at a practical distance throughout the city (Sory & Tallet, 2012). The richest area, for example, has no transit centre because its residents used their power to avoid having piles of waste near their homes. The municipality and a private company share the transfer of waste from the 35 transit centres to the WTRC.

In addition, a major transport problem occurs in the rainy season from June to September. When it rains, transport trucks become stuck at the final landfill. As a result, they stop emptying transit centres. As transit centres become full, waste collection ventures can no longer dump their waste. They are therefore forced to find alternative solutions, such as dumping in wild landfill sites or keeping waste at the office, at the risk of receiving complaints from the neighbourhood, or they must stop their activity and face a considerable loss of income.

In 2007, concession contracts were finally signed with EIGs and for-profit ventures for five years. Nevertheless, individuals and ventures that did not respond to the call for tenders, or were not selected, continued to collect waste, thus creating unfair informal competition. Here again, the municipality has acted very little against informal actors.

In 2009, the municipality of Grand Lyon and the European Union (EU) financed a major project called ‘Ouagadougou Waste Reduction Strategy Project for Job and Income Creation’ (PSRDO/CER). In 2013, the concession contracts with EIGs and for-profit ventures came to an end, and the municipality was expected to launch a new call for tenders. At the time of writing (2019), this second call for tenders had not yet been launched. This puts the sector in a state of extreme uncertainty and chaos because, as one of the entrepreneurs put it: ‘everyone has become informal, even us’ (FP1). Since then, the city has undergone a new administrative reorganisation and a political crisis took place in 2015 (with a change of president of the country that had not occurred for more than 27 years).

With all these complex changes, the waste management sector seemed to be a good fit for my various motivations; it was therefore an ideal place to study how various entrepreneurs cope in a very changing, and therefore very uncertain context.

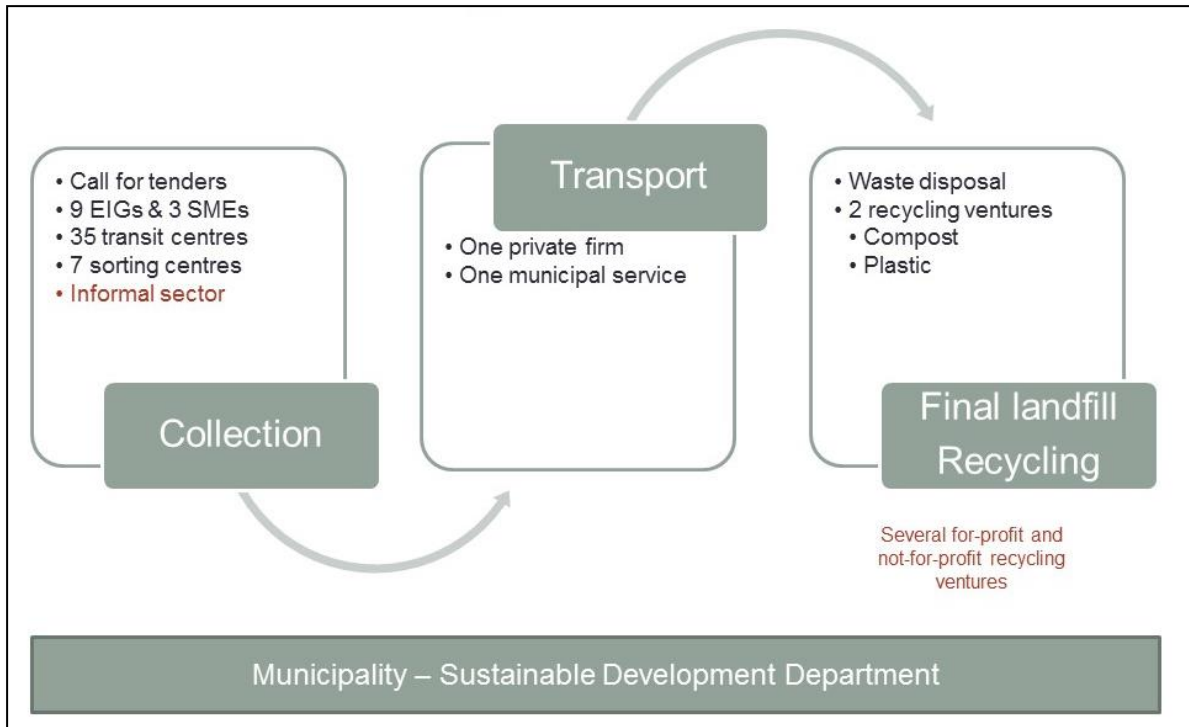


Figure 1-1. Waste management chain of Ouagadougou



Figure 1-2. Pictures of the waste management chain

1.2.4. Data collection

Data collection was carried out over two time periods with an interval of one year, before and after the political crisis in the country. First, an exploratory study was conducted in January 2014 (and July 2014) and made it possible to interview various waste management stakeholders in Ouagadougou: municipality officials; employees from collection, sorting and recycling ventures; formal and informal actors; researchers in the field; project managers; NGOs working in the sector, etc. (see Appendix). Second, in January 2015, in-depth interviews were conducted with the entrepreneurs (i.e. presidents and directors) leading eight collection ventures as well as with various members of their staff (secretaries/accountants, assistants, collection officers, waste collectors). In parallel, observation was carried out by participating in formal and informal meetings and in daily work with the staff of some ventures (collection of the waste through the city) or at the office, and in visits of facilities (transit and sorting centres, official landfill, illegal dumps, etc.). A number of documents were also collected, such as: project reports, internal documents of ventures, legal texts, and theses on the waste management field of Ouagadougou. All the data collection is explained in detail in the Appendix, which reports on all informants anonymously, gives the timing of each interview, provide details on participant observations, and lists the documents. In 2016, I also conducted a follow-up visit with some of the actors.

Table 1-2. Overview of data collection

	Who/What	How much	When
Interviews	8 case studies – waste collection entrepreneurs	23:40	2014, 2015
	1 other waste management entrepreneur	00:20	2014
	8 recycling entrepreneurs	07:35	2014 (one also in 2015)
	3 municipality officials	01:52	2014, 2015
	6 employees of 4 local and international institutions working in the sector	05:17	2014 (one also in 2015)
	4 scholars	05:15	2014 (one also in 2015)
	Total	44 hours	
Participant observation	7 case studies	33 hours	2014, 2015
	5 recycling entrepreneurs	10 hours	2014
	Total	43 hours	
Documents	Legal texts	17	/
	Internal documents of case studies	7	/
	Reports and presentations	11	/
	PhD theses, graduation theses and studies in the waste management sector of Ouagadougou	9	/
	Total	44 (+-2000 pages)	

In total, I questioned 35 different actors, which adds up to 44 semi-structured interviews, 44 hours of recordings and about 600 pages of transcription. The observation periods totalled 43 hours and I collected about 2000 pages of written material. The interviews were rigorously transcribed by Burkinabe students in all nuances of local French, and checked by me. All the verbatim accounts used in the various articles were translated from French to English, respecting the meaning of the informants' discourse. This was possible because I lived and worked during two years in Burkina Faso and I learned to master the local vocabulary, accents and nuances of languages.

1.2.5. Case studies

The dissertation is composed of eight case studies, which are used differently in each article. The first paper will study the eight case studies, the second will examine four of them and the last article will analyse six of them.

The case studies are representative of all ventures engaged in waste collection in Ouagadougou for several reasons. First, the diversity of organisational forms, size, position in the sector and variety of resources and/or activities guided the selection of ventures. Second, these waste collection ventures are emblematic of the sector in Ouagadougou: they lead Economic Interest Groups (EIGs) composed of between two and ten ventures, thus representing many others. The interviews were conducted with all leaders of official EIGs, except two who were not inclined to answer the questions. Four of the eight case studies are not-for-profit, and four others are for-profit ventures (but some of them were previously not-for-profit ventures or cooperatives), all created in the 1990s except one. Seven of the eight ventures are considered formal because they have been selected by the public-private partnership through the call for tenders of the municipality. They are pioneers, i.e. they were created before the privatisation of the sector and had to face many changes over the past thirty years. One not-for-profit venture is considered informal because they have only been collecting waste since 2007, so after the official allocation of collection areas.

NFP1 is a not-for-profit venture, mostly operating in a wealthy and middle-income area of Ouagadougou. They collect waste with a tractor in the wealthy area and donkey carts in less well-off areas. They have approximately 400 customers (1000 before the call for tenders) and employ 17 people. They lead an EIG of three NFP ventures. Their objective is to improve the living conditions of poor women and make their area as clean as possible. The founder is a man who launched the waste collection activity because he saw that women in the neighbourhood

were idle and wondered what he could do to help them. The case study is used in Papers I, II and III.

NFP2 is a not-for-profit venture, collecting waste in peripheral and low-income areas of the city. They only use donkeys with carts, though they recently tried to use a motorised tricycle. They have approximately 1000 customers (about a quarter of their area) and employ 25 women. They lead an EIG of ten NFP ventures. The founder is a woman who created the activity to help women in her area. Their objective is to improve the living conditions of poor women and clean up the district. The case study is only used in Paper I because they strongly resemble NFP3 and the data collected did not bring any additional relevant insights.

NFP3 is a not-for-profit venture, collecting waste in one central (high income) and one peripheral (middle income) area of the city. Their main collection vehicles are donkeys with carts. They recently used a motorised tricycle but then reverted to donkey carts. They have approximately 1200 customers (about a quarter of their area) and employ 20 women. They lead an EIG of three NFP ventures but, unofficially, they are ten because they have started to include other informal NFP ventures. The founder is a woman who abandoned her nursing work to create the NFP venture thanks to the idea of a friend. Her objective is to fight against poverty. She tried to have other activities but without success. The case study is used in Papers I, II and III.

NFP4 is a not-for-profit collective venture, mostly operating in a central, middle-income area of Ouagadougou. Unlike the other ventures, they have only been collecting waste since 2007 and did not respond to the call for tenders in 2003; thus, they are informal. They work with donkey carts but also recently started using motorised tricycles thanks to the help of a Belgian NGO. They have approximately 700 customers and employ 15 people for the waste management activity. Waste collection is not their main activity: since their creation they have also been cleaning the city's gutters. To be able to take part in the future call for tenders, they are in the process of entering an EIG of ten NFP ventures. Their objective is to help the youth of Ouagadougou, namely to help young men to acquire skills and a job. The case study is only used in Paper I to keep a homogeneous basis of comparison within the papers. Indeed, the governance of the organisation is collective, unlike other case studies. In addition, they are considered informal and have not experienced the uncertainty of the sector from the beginning.

FP1 is an individual for-profit venture, operating in a central, middle-income area of the city. Their collection vehicles consisted of one tractor and two trucks (three of their tractors did not

function anymore). The entrepreneur started the business because he wanted to have a regular activity and saw another venture engaged in this activity. He has a degree in human resource management and employs 17 staff, but it has changed a lot since the beginning, owing to fluctuations in the context. He has about 3000 customers. He leads an EIG of four FP ventures and heads the federation of waste collection for-profit ventures. The case study is used in Papers I, II and III.

FP2 was a cooperative venture made up of students with various profiles. It has become an individual for-profit venture following several internal corruption problems. The remaining founder graduated in law. He employs 23 people and has approximately 3000 customers. He leads an EIG of three other FP ventures. They operate in a central, middle-income area of the city. They collected waste with two trucks but as these no longer worked, they used donkey carts. The case study is used in Papers I and III.

FP3 was a not-for-profit venture created by two women entrepreneurs but quickly became an individual for-profit venture because of management problems between the two partners. The remaining woman comes from a family of entrepreneurs and has a master's degree in communication. She employs 40 people and has about 4000 customers in Ouagadougou. She leads an EIG of two for-profit and two not-for-profit ventures. They collect the waste with donkey carts in a peripheral, middle-income area of the city. She is also collecting waste in the second city of the country and has other activities (cleaning, clearing of large sites, restaurant, etc.). The case study is used in Papers I, II and III.

FP4 was a not-for-profit venture for a long time but in 2010, they became a for-profit venture in order to keep up with their development as a business. The founder is a man who has no degree. He employs 110 people and has about 2500 customers. He leads the federation of waste collection not-for-profit ventures. The venture collects waste with trucks and donkey carts in a central, middle-income area of the city. The case study is used in Papers I and III.

1.3. Outline of the dissertation

The dissertation is structured into three main papers and their respective research questions. Paper I, *presented at the 4th EMES International Research Conference on Social Enterprise 2013 (Liège)*, explores the resource-accessing strategies of ventures facing constraints imposed by their changing context. To this end, it is first necessary to better understand the complexity of the field and its challenges for the actors operating in the sector. Hence, it looks at the crucial resources needed by entrepreneurs and the specific constraints they face within their environment. Then, it determines how they react to these constraints by adopting strategies to access resources and how this results in venture development.

Paper II, *presented at the 13th Annual Social Entrepreneurship Conference (Los Angeles)*, goes deeper into the analysis in order to better explain the strategies identified in Paper I and the potential role played by cognitive mental processes, more specifically the entrepreneur's perception of access to resources. Therefore, Paper II questions the potential implication of entrepreneurial perceptions in the way African entrepreneurs access resources in an uncertain environment. It focusses on the perception of resource accessibility, by breaking it down into three components: the perception of environmental uncertainty, the perception of the venture mission, and the entrepreneur's self-perception.

To complement the analysis and further investigate the role of context in the development of entrepreneurship theory, Paper III, *presented at the Babson College Entrepreneurship Research Conference 2018 (Waterford)*, is dedicated to understanding the influence of time and examining entrepreneurial bricolage theory in the light of a non-Western setting, as is the case for the waste management sector in Burkina Faso. Following an ideal-type approach, the paper investigates how entrepreneurs' temporal orientations shape the construction of resources in the challenging context of developing countries.

The dissertation ends with a conclusion composed of different sections. The first section answers the central research question by integrating the findings of the three papers. The second and third sections discuss the theoretical and practical contributions, while the final section enumerates the research limitations and presents several avenues for future research.

2. Paper I: Resource dependence strategies in an extreme uncertain context¹

2.1. Introduction

The objective of the paper is to investigate the various strategies adopted by different types of African venture to access resources in a complex and uncertain context. The ways in which African entrepreneurs manage uncertainty have not yet been fully captured by extant research (Ahi, 2016; Mori, Randøy, & Golesorkhi, 2013; Ouma, 2007; Pfeffer & Salancik, 2003). To tackle the research objective, I draw on arguments from resource dependence theory (RDT) (Pfeffer & Salancik, 1978). RDT documents the strategies through which organisations try to control the resources they need to survive and grow in uncertain environments. The theory predicts that ventures will not only endure their environment, they will act to reduce the constraints it places on them and, in particular, dependences on the actors who control access to their resources. Nevertheless, little is known about how African ventures overcome their external constraints (George et al., 2016). Therefore, the research question is the following: *in uncertain contexts where formal and informal practices intertwine, how do ventures react to the constraints imposed by their changing contexts in order to access critical resources?*

In order to answer these questions, the waste management sector in Ouagadougou (Burkina Faso) will be examined. It is a sector operating with a high level of uncertainty in an extremely resource-scarce context. Since the 1990s, a number of formal and informal, for-profit and not-for-profit initiatives have emerged to deal with waste collection, and have tried to develop while responding to the changing and ambiguous constraints of public regulation.

Within this sector, I examined and compared eight ventures; data was collected in 2014 and 2015 after the political crisis faced by the country. Since public regulation is the first source of uncertainty in the sector, I also interviewed municipal actors and project managers from several institutions or projects that have supported the sector in the past as well as now.

After determining the resources that are critical for ventures, the findings reveal a system of dependences that ventures are confronted with and, also, various strategies adopted to deal with uncertainty and access these critical resources. Among the observed practices, I detect three dominant strategies, which generate different development trajectories. Some ventures implement bypass strategies that produce growth, another group adopts compliance strategies

¹ Paper presented in the 4th EMES International Research Conference on Social Enterprise 2013 (Liège).

creating a permanent situation of survival and a third group prefer to use avoidance strategies that enable them to reach a relatively stable development over time.

By examining waste collection ventures in an unstable African context, the study contributes to extending the scope of empirical studies using RDT in novel cultural settings, namely outside Europe and the US (Pfeffer & Salancik, 2003). The analyses also emphasize the importance of individual entrepreneurs, who in these small ventures seem to be the key decision makers defining the strategic direction. This led me to refine the focal unit of analysis: from the venture as a whole to the individual entrepreneur. In doing so, I adopted and contributed to a more entrepreneurial lens, building bridges between RDT and the entrepreneurial literature concerned with resource mobilisation (Harkins & Forster-Holt, 2014; Villanueva, Van de Ven, & Sapienza, 2012).

The paper starts with a theoretical section reviewing resource dependence theory. The next section describes the data collection and analysis, and imparts background information about waste management in Ouagadougou. Third, the findings regarding resource dependences and resource-accessing strategies of waste collection entrepreneurs are presented. The article ends with a discussion of its theoretical and practical contributions, as well as its limitations, and of future avenues for research.

2.2. Theoretical background

RDT (resource dependence theory) was developed by Pfeffer & Salancik in 1978 and is considered a major contribution to organisational theories and strategic management in uncertain contexts (Casciaro & Piskorski, 2005; Davis & Cobb, 2010; Desa & Basu, 2013; Drees & Heugens, 2013; Hillman, Withers, & Collins, 2009; Nienhüser, 2008; Pfeffer & Salancik, 1978). The central assumption of the theory is that ventures are embedded in the interdependent networks of other organisations or institutions (Granovetter, 1985) that distribute power and resources (Pfeffer & Salancik, 2003). Given that ventures are open systems, they are subject to various constraints coming from other actors, including government, suppliers, competitors, and new entrepreneurs. Because the demands of their context are often conflicting, venture managers need to make choices among various interests, which makes action more complex. The interdependence patterns of ventures are dynamic, they change over time as ventures try to negotiate with their context, which is itself uncertain (Pfeffer & Salancik, 2003). The central question is: what are the conditions allowing a venture to comply with contextual

demands? The literature on RDT addresses the question according to two different orientations. The first school of thought follows the classical assumptions of RDT, suggesting that ventures should decrease their dependences to gain more power and control over resources (Pfeffer & Salancik, 1978). The second school of thought, on the contrary, considers that ventures must optimise mutual dependences in order to gain better access to resources together (Casciaro & Piskorski, 2005; Gulati & Sytch, 2007; Villanueva et al., 2012).

Pfeffer and Salancik (1978) proposed five types of strategy that organisations may enact to decrease their dependences, gain resources, and reduce uncertainty: mergers and acquisitions, joint ventures, recruitment of directors, political action, and executive succession (Hillman et al., 2009). These strategies may have different aims. Some of them allow ventures to adapt to their context or, instead, evade constraints; others aim to alter the context to align it to the objectives of ventures.

Studies using RDT have often focused on one of the five strategies theorised by Pfeffer and Salancik (1978) in a specific empirical field and have investigated how it resonates with the theory (Casciaro & Piskorski, 2005; Hillman et al., 2009). Only a few studies have examined the combination of several strategies in uncertain contexts. Nizet & Van Dam (2014a), in their paper studying the strategies of organic production ventures, proposed five categories of strategy that can be observed and combined, based on the RDT framework. I suggest that these categories provide a more flexible analytical toolkit to investigate a variety of strategies and consequently, deserve to be explored more in various empirical fields. This is why the categories defined by Nizet et Van Dam (2014a) will be used in the analytical part of the paper. They are as follows:

- **Absorption.** This first category allows the venture to absorb interdependences by reconfiguring its structure, its products, values, etc., in order to adapt to its context. Typically, this involves integrating dependences within the organisation, for example through mergers and acquisitions with a competitor or supplier, which can absorb constraints related to access to some resources (Davis & Cobb, 2010; Hillman et al., 2009; Pfeffer & Salancik, 1978).
- **Compliance.** This category of strategy consists of responding positively to contextual constraints by, for example, complying with standards (equipment, human resources, etc.). Pfeffer & Salancik (1978) note that this strategy can be useful at a given point in

time but, in the long term, it implies a loss of autonomy and decision-making power for the venture.

- **Transformation of the context.** In this case, organisations try to make the environment relevant to their needs, for example through collective action or lobbying. These actions show that organisations possess some power of influence over their context and that they are not forced to submit to it (Pfeffer & Salancik, 1978).
- **Avoidance.** This type of strategy consists of avoiding contextual constraints, including dependence on various resources. For example, a venture will keep its activity small-scale in order not to have to apply for financial loans. Others will avoid being dependent on technology by using more traditional equipment. Another avoidance strategy may involve removing the constraint and often, therefore, stopping the related activity.
- **Bypass.** This consists of strategies that break the rules or select the more advantageous ones. Often, this means working informally to some degree, whether through activities that do not (fully) comply with the rules or hiring staff that are not (fully) declared. One of the best ways to evade the influence of others and keep control is to hide or not have the capacity to fulfil constraints or demands (Pfeffer & Salancik, 1978). Ventures operating in a less munificent context are more likely to engage in illegal activities (Staw and Swajkowski, 1975 cited in Pfeffer & Salancik, 1978).

These five categories of strategy make it possible to increase the level of abstraction and thus to report more effectively on a variety of practices, as found in the waste management sector in Ouagadougou. In addition, despite the massive amount of references to RDT, Pfeffer (2003) noted that empirical studies using the theory were still scarce, especially in cultural settings outside Europe and the US. Countries with a more collective-based and reciprocity-oriented culture, like African countries, provide a very different context in which to examine specific ways of managing uncertainty (Hillenkamp, Lapeyre, & Lemaître, 2013), thus enriching the theory. Furthermore, few studies have used RDT to examine relationships between different types of actor: regulated and regulators, or partners (banks, NGOs, etc.) (Pfeffer & Salancik, 2003).

Among the scarce literature employing RDT in Africa, Ahi (2016) analysed the human resource strategies of two large firms in Ivory Coast in the context of globalisation. Mori, Randøy, & Golesorkhi (2013) applied the theory to analyse relationships between microfinance institutions and the Board of Directors in East Africa. A thesis examines how Kenyan and South-African public universities have tried to reduce their dependence on government funding by developing

non-government funding strategies (Ouma, 2007). However, these studies examined formal sectors of activity with relatively structured resource flows. By contrast, this piece of research focuses on a sector that is not only facing high uncertainty but also high levels of informality and conventional resource scarcity.

Therefore, I ask: *in uncertain contexts, where formal and informal practices intertwine, how do ventures react to changing contextual constraints in order to access critical resources?*

Following Nizet & Van Dam (2014a), I will use the word ‘context’ instead of ‘environment’ to avoid any confusion between the natural environment, which is often impacted by waste management, and the environment, i.e. the context in which ventures operate.

2.3. Research site and methods

2.3.1. Research context

I chose to study the waste management sector in Ouagadougou because, for several reasons, it constitutes an extreme case of uncertain context and its complexity has not yet been documented by extant research. Waste management is a relatively new sector in Africa, but has already dealt with many changes, in a context generally considered to be poor in resources. For over sixty years, Africa (including Burkina Faso) has undergone increasing urbanisation due to a massive rural exodus (Monga & Lin, 2015). In a context of globalisation, African cities are facing a demographic explosion and, therefore, an increase in formerly unknown types of waste (Bouju & Ouattara, 2002; Traoré, 2011). Illegal dumping and the uncontrolled dispersion of waste that can be observed in African cities show that management problems are numerous. Indeed, waste management is a critical issue for urban development, mainly for reasons of health and sustainable well-being. In 2009, national public figures stated that more than 70% of waste were collected in Ouagadougou (capital) while other analyses showed that the figure did not actually exceed 30% (Sory, 2013).

Since Burkina Faso became independent in 1960, the landscape of waste management in the country, in particular in its capital, has undergone several transformations. At first relegated to public management, the sector then allowed a proliferation of ventures in the 1990s; both not-for-profit and for-profit ventures jumped in to fulfil the need for waste collection not fully supported by the State in large areas of the city. Under the leadership of the World Bank, and as part of structural adjustment policies in the Global South and the desire to privatise inefficient public services, the city adopted a waste management master plan in 2000. The sector’s

management was given the shape of a public-private partnership (PPP) between a decentralised service of the municipality of Ouagadougou and various waste collection ventures. As part of this partnership, a call for tenders was launched in 2003. First, it constrained waste collection ventures to come together in Economic Interest Groups (EIG), partly in order to be stronger but mainly to be allowed to participate in the call for tenders. At the same time, the city was divided into twelve collection areas according to population density. The selected ventures were then allocated to these areas (some of these were not their initial waste collection zones).

Several problems have arisen and are undermining the entire waste management sector: ventures that had not applied for the tender or had not been accepted, and are considered informal, are continuing their collection activities, thus creating 'unfair' competition for ventures that were officially awarded a contract; collection areas were not equitably distributed between ventures, thus generating profitability imbalances (e.g. peripheral areas are less profitable because their population is less wealthy) (Meunier-Nikiema, 2007; Sory & Tallet, 2012); the municipality, in charge of public awareness of waste management (and, therefore, mandatory subscription to a waste collection service) so far has not fulfilled its responsibilities. In addition to being uprooted, certain ventures experienced difficulties finding clients, being profitable and even surviving. Others, however, are managing well in this uncertain context. This incessant reconfiguration, or even experimentation, within the sector makes the management of the city and its waste very complex, forcing players to use a variety of strategies, play power games and adopt acting styles.

2.3.2. Data collection and analysis

To answer the research questions and understand the strategies applied by organisations in this uncertain context, this article makes use of several case studies conducted since 2014. I opted for qualitative case studies because they are more appropriate to understand phenomena involving historical events over time, particularly when the context is complex (Eisenhardt, 1989; Yin, 1981).

The data collection consisted of three stages. Firstly, an exploratory study was conducted in 2014, during which various actors in the waste management sector in Ouagadougou were interviewed (municipal staff, waste collection entrepreneurs, recycling entrepreneurs and ventures, project manager of a European Union (EU) project, representatives of NGOs, etc.). Secondly, at the beginning of 2015, after the political crisis had plunged the country into great uncertainty, in-depth interviews were conducted with eight entrepreneurs and, also, with

different members of their staff (secretary/accountant, waste collectors and other employees). I selected these eight ventures because they were pioneers (except for one), had gone through the many changes and uncertainty in the sector, and most of them are or were at the head of Economic Interest Groups (EIGs) comprising between two and ten waste collection ventures. For that reason, they represented ventures operating in the waste collection sector and had much experience and information to share. Only two other leading ventures are missing: they did not wish to be interviewed.

The case studies vary in several aspects (see Table 2-1). Four case studies involve not-for-profit ventures (NFP) while four others involve for-profit ventures (FP). Seven of the eight ventures are considered 'formal' because they were selected into the public-private partnership with the municipality. The last case study is a NFP that entered the waste management sector more recently. It is considered 'informal' because they collect the waste without any official agreement. Two of the FP ventures previously had a not-for-profit status and one was a cooperative. One of the NFP ventures is collecting waste in the richest area of Ouagadougou, which is rarely the case. Finally, a set of 44 official documents, legal texts, reports, internal documents and thesis, coupled with 43 hours of daily work observation and participation in both formal and informal meetings yielded additional data and allowed for triangulation (Gibbert & Ruigrok, 2010; Yin, 1981).

During the many days of participant observation and interviews, I became strongly aware that the management and development of the ventures had been in the hands of their leaders since the creation of each venture (except the informal one). The leaders took all the strategic and operational decisions, which were then communicated and implemented by the workers, who did not really have a say. The leading entrepreneur within each organisation was the one who confronted changes in the sector and participated in meetings with various stakeholders (municipality, project manager, etc.). Workers were never involved at this level and followed the boss's orders. The entrepreneur managed resource dependences, i.e. the entire resource mobilisation process.

For all these reasons, the unit of analysis moved from the venture as a whole to the leading entrepreneur. Moreover, the various conversations with workers were not relevant in terms of data. They had few things to share, even after several days of familiarisation. Some of them stated that they did not dare to talk too much, they just tried to do their job well every day. This can be explained by a cultural factor, i.e. that power is often concentrated in the chief's hands

in Africa (Dialla, 2005; Kamdem, 2002), but also by the fact that most employees were often extreme cases of marginalised people. A few of them had difficulties in answering questions, despite numerous attempts to reformulate in the local language with the presence of a translator.

Table 2-1. Case studies

	NFP1	NFP2	NFP3	NFP4	FP1	FP2	FP3	FP4
Status	Not-for-profit	Not-for-profit	Not-for-profit	Not-for-profit	For-profit	For-profit (former coop)	For-profit (former NPO)	For-profit (former NPO)
Year of creation	1995	1999	1999	2003	1993	1990	1996	1992
Position in the sector	Head of EIG → 3 NFPs	Head of EIG → 10 NFPs	Head of EIG → 2 NFPs (10 unofficially)	Informal Future EIG of 10 NFPs	Member of EIG of 4 FPs + Head of CGED (federation of waste FPs)	Member of EIG of 3 FPs	Head of EIG → 2 FPs and 2 NFPs	Member of EIG + Head of CAVAD (federation of waste NPs)
#staff	17	25	20	15	17	23	40	110
#client	400	1000	1200	700	3500	3000	4000	2500
Collection means	Motorised engines and donkey carts	Donkey carts	Donkey carts	Donkey carts and motorised engines	Motorised engines	Donkey carts (trucks before)	Donkey carts	Motorised engines and donkey carts
Collection area	Central & rich	Peripheral & middle income	Peripheral & low income	Central & middle income	Central & middle income	Central & middle income	Peripheral & middle income	Central & middle-income

For the present paper, I analysed more specifically the two rounds of interviews with the eight waste collection entrepreneurs (16 interviews), two interviews with representatives of public authorities (the Director of Sustainable Development within the municipality and the person in charge of waste management within the municipality) and one interview with the project manager responsible for the EU waste management project in Ouagadougou between 2008 and 2012. I also analysed the set of collected documents, which enabled me to explore different sides of the research setting and compare the informants' discourse with official data or studies conducted in the past. Legal texts and official documents were useful to understand how the

sector is structured and the role of each stakeholder. Project reports helped me to understand the degree of involvement of actors in the professionalisation of the sector. The notes taken during the participant observation were particularly useful to understand the predominant role of entrepreneurs and operate the change of unit analysis.

The approach in this study is mainly deductive. After a full transcription of the interviews and observation notes, the data were analysed with the help of content analysis methods. Because I structured the analysis with RDT frameworks in mind, deductive content analysis is appropriate to allow the preparation and organisation of data, and report the findings (Anadon & Guillemette, 2006; Elo & Kyngäs, 2008).

First, codes were assigned to each case study transcription (Elo & Kyngäs, 2008; Krippendorff, 2018). This operation was also carried out for the documents analysed, such as legal texts or internal documents of ventures, in order to differentiate them from each other.

Next, the data were examined in four steps on the basis of thematic template categories from RDT frameworks, i.e.: the identification of the crucial resources in the eight case studies, the types of contextual dependence ventures faced, their strategies to access these resources, and the effectiveness of these strategies (Hatch & Cunliffe, 2009; Nizet & Van Dam, 2014a; Pfeffer & Salancik, 1978). The analysis was carried out with an interpretivist stance, on the basis of entrepreneurs' discourses. After individual case study analysis and cross-case study comparison, resources, dependences and strategies were assessed and mapped in order to detect similarities and differences between the ventures and answer the research questions.

2.4. Findings

2.4.1. Critical resources

The first period of coding enabled me to identify critical resources needed by the eight ventures as well as the actors linked with these resources (see Figure 2-1). This identification was conducted in two steps. After the first set of interviews in 2014, I coded the resources mentioned in the discourse of each entrepreneur. During the second round of interviews in 2015, I purposely asked each entrepreneur to classify the resources in order of importance and to justify their choices.

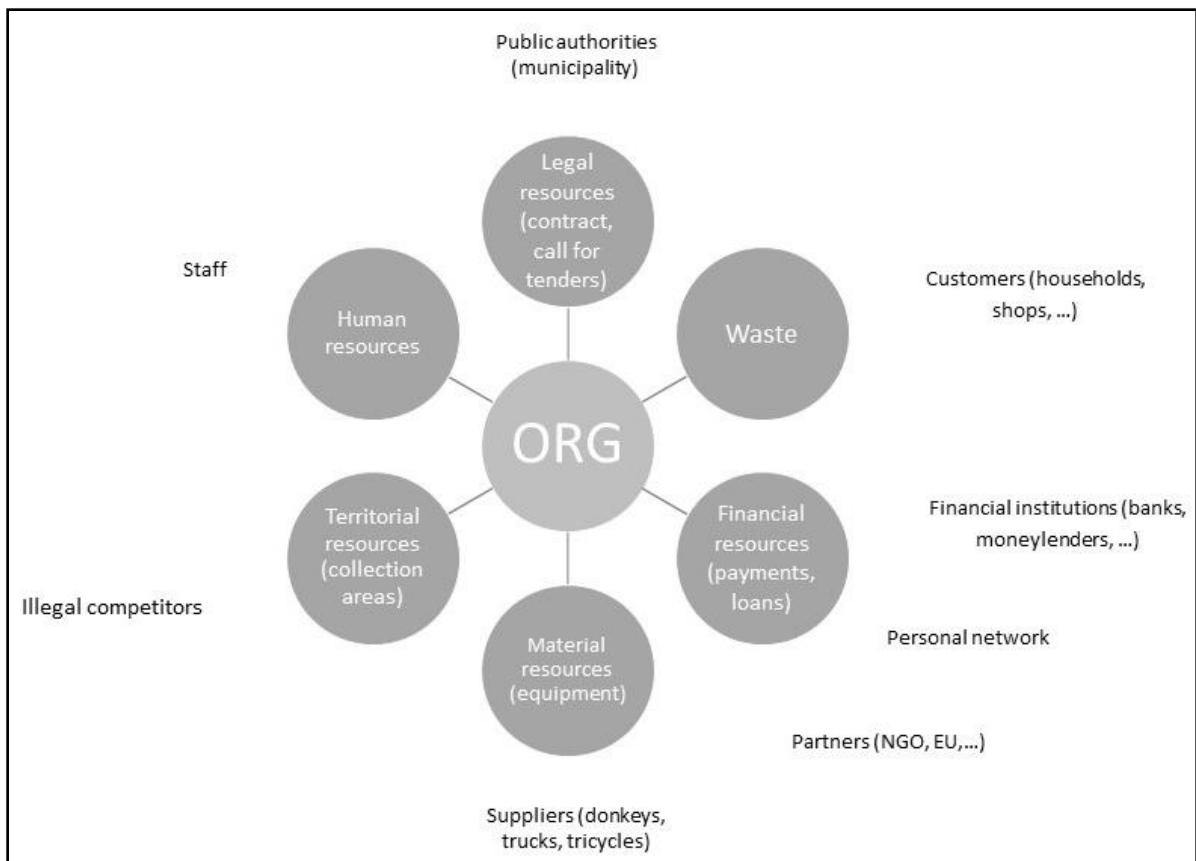


Figure 2-1. Network of resources and actors involving waste collection ventures of Ouagadougou

The first critical resource is the waste that entrepreneurs must access through waste producers (households and organisations in the city) if they accept to subscribe to the service. The collection of waste is often their only earning activity. The second important resource is the equipment used for the collection of waste. Some entrepreneurs use donkey carts while others use motorised engines, such as tractors, tricycles or dump trucks. Human resources are also critical. The collection job is usually carried out by low-skilled people, often widows or young people who have few job opportunities. The allocated zone is also considered to be an important resource because it demarcates the work area for each entrepreneur and their potential customers. Some entrepreneurs collect waste in rich, central areas while others collect it in lower-income, peripheral areas, which has an impact on the service fee. Since the sector is regulated by a PPP, the legal resource is also critical for most entrepreneurs: contracts allow them to do their job formally/officially. However, the formal aspect of the work is not a problem for most not-for-profits; one stated that ‘even if we do not win the next call for tenders, we will become an informal and stay in the sector because we have nothing else to do’ (NFP2). At a financial level, bank loans or subsidies are considered a less critical resource by most

entrepreneurs; sometimes, they are viewed as a potential resource for a better development of the venture. Nevertheless, some entrepreneurs can be resourceful when it comes to finding financial help.

2.4.2. Nature of dependences

To understand the behaviour of an entrepreneur, one must understand the context of that behaviour (Pfeffer & Salancik, 1978). On the basis of the resource analysis, I was able to examine the constraints coming from the actors within the contextual network who possessed, managed or controlled essential resources, i.e. the organisational interdependences (Hatch & Cunliffe, 2009; Pfeffer & Salancik, 1978). In a second step of coding, I classified these dependences according to their nature (economic, territorial, political, technological, social, etc.) (Hatch & Cunliffe, 2009; Nizet & Van Dam, 2014a) but I was not able to obtain clear categories because many dependences could fit several categories. I realised that I had encountered a system of interdependences objectively challenging all ventures (Figure 2-2).

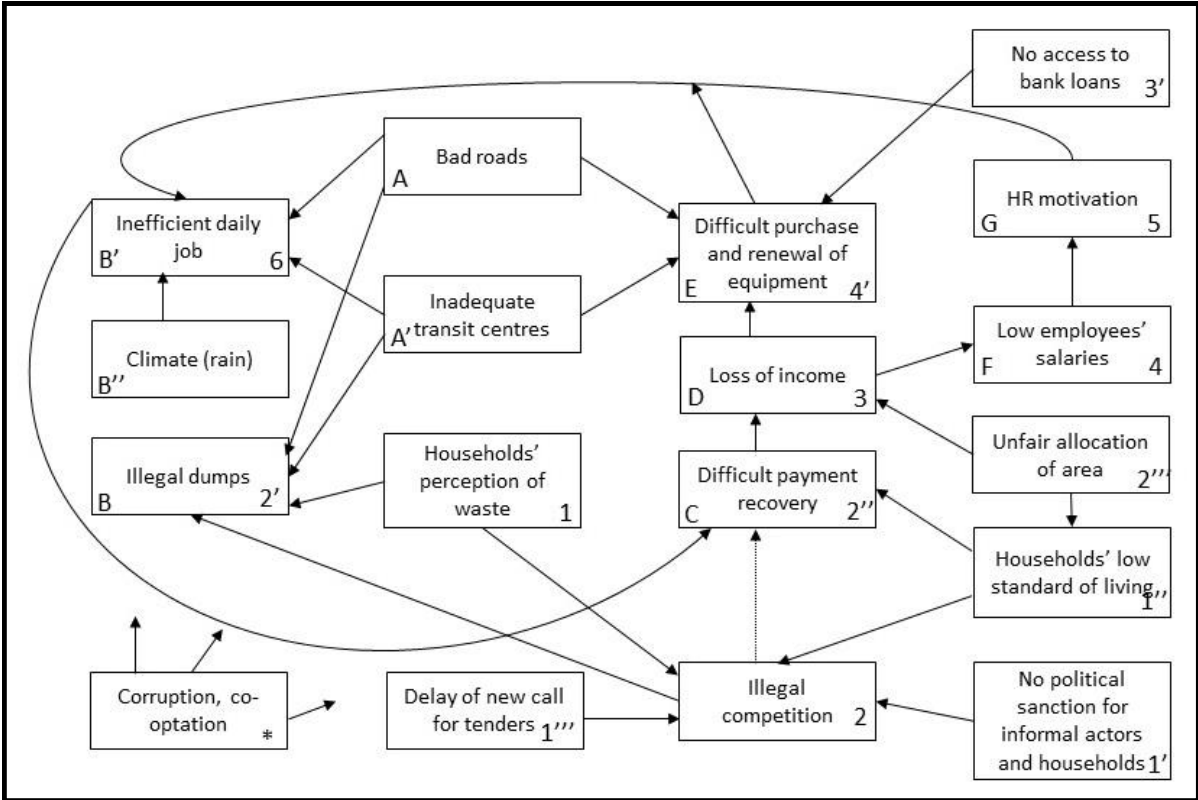


Figure 2-2. System of interdependences of waste collection ventures in Ouagadougou

The system of interdependences is composed of several sequences of causes and effects and vicious circles.

A first sequence is illustrated in Figure 2-2 by the numbers in the bottom-right corner of the boxes. Most households have a negative perception of waste and are not conscious of its potential hazards (1). Thus, many of them burn their waste themselves or throw it on illegal dumps (2'). NFP1 complained about it because it constrains their job: *'if the city is clean, you are proud but if you see people throwing the waste in the roads, you are discouraged. At the beginning, people were chasing us out of their homes, but who will do this job? And we eat in the waste!'* The Sustainability Director of the municipality also explained that *'there are some residents who turn sewers into garbage dumpsites, it is incivility'*.

In addition, most households have a low standard of living (1''), thus they consider paying for a waste collection service to be a last priority and do not always pay on time (2''). Others prefer to subscribe to illegal competitors (2). All official entrepreneurs encounter both formal and informal competition from other ventures or from individuals operating in their collection area. By 'formal competition', I mean the competition coming from official ventures that collect waste outside their allocated areas. By 'informal competition', I mean competition from ventures and individuals collecting waste illegally and more cheaply (some had not been selected during the call for tenders or did not even bid, while others appeared in the sector much later). FP1 described the problem: *'when the informals attack our areas, first of all, they attack at prices that totally undermine your policy and strategy and it becomes a problem, but do they do the job well? No, anyway, if the beneficiary can get rid of his garbage cheaper, he doesn't care, he wants the garbage to leave his home. Informals are gangrene.'* For the person in charge of waste management in the municipality, informality was a social and cultural problem: *'We asked informal entrepreneurs to be subcontracted with formal entrepreneur of his area. There are some informal people who say "no, this is my child, he [the formal entrepreneur of the area] was born after me. How will he come to order me?" Indeed, the old man has been in the business for years, you come in the evening, you have had the market because you have equipment and you want the old man to work with him to subcontract, no; so people refuse. The household knows the [old] guy, they have been used to him for years, so the households tell the guy who won the area that he cannot stop the contract with him.'*

Another political constraint concerned the delay with the new call for tenders, which reinforced informality (1'''). It was constantly delayed although the contracts of the first call had ended in 2014. This extreme, uncertain situation plunged the sector into chaos. FP1 described it in this way: *'the evolution in terms of waste is not as we expected; we should have been in a new scheme this year [2015], with a new call for tenders and new areas, but in the meantime, a new*

mayor has arrived and took time to settle and then the socio-political crisis... Everything is on hold and everybody does what he wants.’ Furthermore, informal competitors threw the waste away in illegal dumps (2’) and were not sanctioned by the municipality (1’). NFP1 explained: *‘the informals are not in the call for tenders, do not pay taxes, are not regulated; the municipality had started to sanction them with the police but with the mutiny of 2011 (fear of reprisals from the population), they sent letters saying not to sanction the informals anymore, so we are here, we wait for the next step... But the big problem you know? They want to mix things up with politics, that’s the real problem.’* Consequently, informal competitors have led to a serious loss of income among formal ventures (3) but also to a serious environmental and health problem.

Another dependence impacting revenues concerns the distribution of collection areas, considered unfair by most entrepreneurs (2’’). Ventures that have access to the city centre are more profitable because they have potentially large clients, like firms, that can afford a more substantial subscription. On the contrary, entrepreneurs serving the periphery of the city deal with low-income households in more lawless areas. This assessment is confirmed by the thesis of Sory (2013) (Sory & Tallet, 2012), who analysed the geographical distribution of waste collection in the city. Moreover, the loss of income (3) and non-access to bank loans (3’) do not allow entrepreneurs to pay appropriate salaries (4) and to renew or purchase adequate equipment (4’). FP1 told me that *‘all the equipment of all the ventures is old, it’s not renewed, we don’t even have the means to maintain, let’s not even talk about renewing.’* Low salaries often lead to weak employee motivation (5) and, coupled with inefficient equipment (4’), result in inefficient daily work (6). Finally, inefficient daily work drives some households to stop their payments (2’’) and ask informal actors to do the job instead (2). The loop is closed.

A second sequence of dependences is expressed by the letters in the bottom-left corner of the boxes in Figure 2-2. Inadequate public infrastructures can block the entire waste collection channel. The condition of roads is precarious (A) (rarely paved) and damages vehicles. FP2 explained that *‘roads are bullshit! You go home with your equipment and you damage it in less than a few months and the weight and nature of the waste destroy the equipment!’* The transit centres, where the collection vehicle must throw the waste away (A’), are often inappropriate, full, broken, or far from the collection area. NFP3 complained that: *‘the transit centre is not even suitable for tricycles; you can’t throw away because the bins are too high.’* This results in illegal dumps all over the city (B) but also in inefficiencies in daily work (B’), particularly during the winter season when it is raining (B’’) because the roads are flooded, and the transit

centres are not emptied. This slows down the work of the waste collectors, who cannot collect all the waste in their area or must keep some of it at their office, which annoys the neighbourhood.

This system of dependences is connected with the first one. Job inefficiencies cause a loss of revenue for the ventures (D) because dissatisfied households often cancel their subscriptions (C), leading to the same loop as with the first system (E-F-G). NFP3 explained that *'during the winter, the trucks of the municipality that must empty the transit centres get stuck at the big landfill so it makes the system blocked; we can do two weeks here without picking up (...) there are households that terminate their contract, there are others when it rains, they pick up and throw them in the water and then the water takes that.'* In addition, another constraint is related to the lack of household legal sanction (1'). Even though the subscription to a waste collection service is compulsory for households (Environmental Code), the municipality does not force them to subscribe, or even try to raise awareness among them.

Moreover, some informants disclosed to me the problem of corruption and co-optation (*), namely regarding the irregular collection of transit centre waste (managed by two ventures: a public service of the municipality and a private firm belonging to a previous mayor of the city). NFP3 related that *'there are people who are there, there are not-for-profit ventures that have not had the area, but we can't touch them; there are authorities who are behind so you can't say anything.'* FP1 also explained that *'there is a lot of paternalistic authority in our relationships with the municipality. When we meet, we discuss but I don't have the impression that our opinions matter...'* The EU project manager also told me that *'there is another motivation that is not objective and that wants to slow down the change in waste management in the municipality of Ouagadougou. As politicians are behind some firms and not-for profit ventures, they do not want to lose markets.'*

This system analysis made it possible to reduce the complexity of the constraints within the sector, by demonstrating how strongly related dependences are, and how this impacts the functioning of the sector in various ways. In the next section, I will analyse how some entrepreneurs tried to influence their context by reducing these constraints and accessing crucial resources, i.e. the entrepreneurs' practices and strategies.

2.4.3. Types of strategy to manage dependences

The third stage of coding consisted of two steps (see Table 2-2). First, I identified the resource mobilisation practices of each entrepreneur. I looked for all practices independently of the contextual constraints to which they were linked because the link was not explicit in the entrepreneurs' discourse. Second, these practices were coded into categories according to RDT frameworks found in the literature (Nizet & Van Dam, 2014a; Pfeffer & Salancik, 1978). The analysis unveiled a multitude of practices and a large range of strategies across the case studies. By 'strategies', I mean the types of practice implemented by entrepreneurs in order to reduce their dependences on contextual constraints. Four types of strategy were found: absorption, compliance, avoidance and bypass, which are discussed in the next subsections.

Table 2-2. Strategies of waste collection entrepreneurs

Practices	Strategies
Vertical diversification: informal sorting and/or transporting of waste Horizontal diversification: developing other activities Geographical diversification: collecting waste in another city Area outsourcing Employee outsourcing Integration of new ventures within the EIG Change in organisational form	ABSORPTION (integrate the constraint)
Purchase of required or standard equipment (trucks, tricycles) Joining an EIG Having larger customers paying more for the service Hiring a lot of staff in anticipation of the amount of work and fire staff if there are problems Communicating with customers often Repeated request to the municipality to comply with legal aspects	COMPLIANCE (conform to municipality requirements or business theory)
Reverting to donkey carts Dismissal of staff <i>Laissez-faire</i> attitudes (informal or formal competition), giving up the fight, submissiveness, keeping quiet and waiting No applications for loans to banks No collection at open rubbish dumps coming from informal activities	AVOIDANCE (stop or no action)
Collection of unauthorised waste (biomedical, industrial) Disposal of waste in open unauthorised dumps Disposal of waste in office courtyards Hiding the real income level Informal and occasional workers (no tax) Collection in other areas (initial area of operation or not) Work during the weekend Obtaining loans or funds through contact network, other activities or NGO Use of donkey carts considered to be more efficient	BYPASS (find arrangements/workable solutions according to an opportunity)

Absorption

I observed various strategies of organisational reconfiguration designed to integrate dependences. A first subcategory of absorption strategies consists of *diversification*, which can take three shapes. First, I detected *vertical* diversification: in all case studies, ventures practiced informal sorting of the waste and sold the reusable part; the entrepreneur let the employees free to do this 'informal' job because it constituted a substantial additional income for them. Some ventures occasionally transported the waste, also in an informal way because it is not legal. NFP1 explained that *'women directly sort from households, they can drop off in the yard and two Saturdays by month, there is a market and people come to buy and to sell. There is not a woman who earns less than 10.000 FCFA!'*

Second, entrepreneurs practice *horizontal* diversification. Most entrepreneurs have, have had or are trying to have other activities to diversify their revenues (soap production, water sale, restaurants, construction, etc.). For example, FP3 carried out other activities, such as the clearing of large sites and cleaning. NFP2 obtained subsidies from an NGO to sell water in its area (but it did not work). Third, one entrepreneur (FP3) operated *geographical* diversification by collecting waste in the second largest city of Burkina Faso; others sometimes collected waste in non-authorized areas.

A second subcategory of absorption strategies involved *outsourcing* or *alliances*. Trying to foil informal competition whenever possible, most entrepreneurs concluded outsourcing contracts with informal ventures collecting waste in some parts of their area. NFP1 explained: *'we prefer to subcontract with them to be able to ensure the work, so that we don't trample on each other, because if they work randomly, if there is a problem, we are responsible for our area.'* For his part, FP1 replaced staff with other waste collection entrepreneurs when he found it difficult to pay them all because of the unstable context. *'I had to cut back on staff... I negotiate, I place them with other ventures that need staff, I place them here and there, waiting for the call for tenders to come in, because in fact it is to manage a transitional period... I don't let them down. I have actually subcontracted with someone else for 1500 subscribers and I asked him to take over at the same time the team that collected there... It's a service, it's not a subcontracting, I don't take money, what's essential for me is that they do the collections on a regular basis, and the employees I had in the field continue to have a salary, and then thirdly it's always on behalf of my company, so things are going well. I just need a technical reference, that FP1 has done a good job and that my employees are paid'.*

Others, on the other hand, tried to bring together these ventures, and even to integrate them into their EIGs, either in order to be stronger in a future call for tenders or just to avoid problems with them. I even observed some entrepreneurs helping informal actors to become an official not-for-profit venture out of solidarity. NFP3 told me that *'it's better to get along with the informals to do the job better than to drive them out of the area because how are they going to get food? Go steal? I think it's better to integrate them into our EIG, to be able to do the work better, not to leave them out.'*

Some entrepreneurs changed the status of their venture from not-for-profit to for-profit. There were several reasons for this. FP4 saw his activity growing so he felt the need to become a firm but kept the non-for-profit spirit inside the venture. FP3 became a for-profit firm quickly because she wanted to be able to bid for public contracts but, also, because she wanted *'to be the only captain on board'*.

Compliance

Several practices consisted in complying either with the municipality's requirements or with classic business and management prescriptions (theory), enduring contextual constraints. For example, all entrepreneurs accepted to join an EIG to take part in the call for tenders because the municipality required them to have a commercial status. Some entrepreneurs also bought the required material in order to collect the waste in certain areas. NFP1 explained that *'there are areas where we are told not to leave with donkeys, like Ouaga 2000, it is forbidden, we had to pay for tractors'*.

Another compliance strategy concerns conformity with business theory. FP1 and FP2 bought trucks because business theory said that, as a for-profit venture, they would be more efficient in their job if they used standard equipment (like trucks) instead of donkey carts (this is what they think that business theory would say but was also often repeated by the municipality). In this sense, they also tried to segment their market (their area) by trying to have larger customers willing to pay more, such as restaurants, firms, or public services.

FP2 explained that *'if you are lucky enough, it is these subscribers who ask for a frequency or who have a larger quantity, at the moment you can negotiate, moreover they are the ones who compensate the weak revenue; the reality is that my 4000 subscribers didn't count in front of someone's 100 subscribers.'* FP1 also told me that he acted by anticipating. He made expenditure and investment projections based on the future of the context. For example, he

hired many people when he thought that the call for tenders would be launched, in order to be ready to bid, thus displaying the size of his human resources. Another business strategy was customer retention. This was strongly practiced by FP3 and FP4 through intensive communication with customers. They warned customers if there was a problem, answered their phone calls, and so on.

Avoidance

I noticed that some entrepreneurs avoided interdependences. They gave up or cancelled problematic activities or relationships with constraining actors in their environment. Some NFP and FP entrepreneurs had bought motorised vehicles but, owing to several problems (financial difficulties, delayed call for tenders, and damaged roads), reverted to donkey carts. Others avoided applying for bank loans. Another frequent strategy was a *laissez-faire* attitude with informal or formal competition. Some entrepreneurs gave up the fight, resigned themselves or just kept quiet, waiting for something to happen in the sector. NFP1 told me that *'to avoid problems, to avoid the fight, we are obliged to be silent'*. In the same vein, NFP2 explained: *'We fought, fought, fought, fought... They refused to leave [the informal ones] and then if you keep fighting, they tell you that they will cut off your head! Since we don't want any problems, we keep quiet and pick up the waste, the most important thing is that we get along. Who will come to save you? No one will come.'*

Bypass

By 'bypass strategies', I mean arrangements or workable solutions implemented by entrepreneurs to deal with contextual constraints. Sometimes, they consist in breaking the rules or prohibitions imposed by the municipality, or selecting the most advantageous ones. For example, some entrepreneurs throw the waste away on illegal dumps or collect unauthorised materials, such as biomedical waste. FP1 justified it in this way: *'although it is not entirely legal, we sometimes collect industrial waste because we burn it and then finally there is not even a structure that does it. Anyway, if you refuse to do it, your employees will do it and they will pocket their money.'* NFP3 told me why she threw the waste away on illegal dumps: *'now we have to repay the loans (tricycles) and the work is not progressing, we collect but there are no bins [at the transit centres] so it creates problems, especially during the wintering, the vehicles sink, so we do not even throw in the bins, we go directly to a wild dump; we have to go there to do the work otherwise we can have two weeks, three weeks without finishing the work... Currently we have three transit sites and sometimes only one bin, sometimes two bins while*

even informals go to throw there. If things do not go well here, how are we going to manage?’ FP3 also threw the waste away on wild dumps but did not perceive this as illegal: *‘the removal of bins is not a problem [the fact that it is not emptied in time in the transit centres], we go to fill the quarries, people even ask that because the children drown in the rainy season. The bins at the transit centres can take nothing, two times 10m³, the municipality has no solutions, they no longer have bin lifters and EBTE [the private firm that transports waste to the final landfill] also has its priority areas.’*

Sometimes, if the transit centres were full, they kept waste in the office courtyards, which is forbidden and causes neighbourhood problems. Or they collected waste during the weekend to make up for delays, which is also forbidden. Some of them also hid their official revenues from the municipality or employed informal workers (not registered in order not to pay employer’s taxes). Other entrepreneurs sometimes collected waste in their old area (the initial area they operated in before the call for tenders). Some of them justified this by arguing that they had not yet received their official contracts from the municipality. Others said that the new contractor in their area did not do the job properly and households had asked them to come and collect the waste.

Entrepreneurs also made other types or arrangements to bypass constraints. To obtain loans, many entrepreneurs used their network, either their solidarity network or private moneylenders. NFP4 successfully partnered with a European NGO to fund their waste management programme and, in particular, the purchase of motorised tricycles adapted to the transit centres, even though the venture was informal in the sector. FP3 found workable solutions independently from conventional wisdom or municipal requirements. For example, she collected the waste with donkey carts because she considered donkeys to be more efficient for the moment, even if her venture was a for-profit and the municipality asked for motorised vehicles.

The findings show that many entrepreneurs are not passive: they act against contextual constraints in different ways. Because I was familiar with the system of dependences that ventures face in the waste management sector in Ouagadougou, I then highlighted the many strategies that entrepreneurs combined to address these many constraints and to access resources. What I did not yet know was the effectiveness of these strategies. Did they reduce dependences related to contextual constraints? Which strategies worked and which did not? Answering these questions would help me understand why some entrepreneurs were more

successful than others. To this end, I conducted a fourth stage of analysis, linking dependences to the strategy categories identified for each entrepreneur.

2.4.4. Effectiveness of strategies and development paths

Linking the dependences with the strategies, three dominant strategies emerged among entrepreneurs, even though they objectively faced the same dependences: compliance, avoidance and bypass (see Table 2-3). Each entrepreneur applied one dominant strategy, thus leading his/her venture along different development paths, i.e. survival, stability or growth. That is why I assumed that these dominant strategies would have an impact on different levels of effectiveness. Development paths were defined as the overall state of development of the entrepreneur's venture, from the start of the activity (around 1990) to the time of the last interview (2015). They were determined during the coding stage. The 'survival' code was applied when the entrepreneur communicated failures, staff layoffs, or negative changes in offices or equipment. The 'growth' code was used when the entrepreneur mentioned successes, positive developments in the activity or an increase in the number of subscribers or employees. The code 'stability' was used when the entrepreneur indicated a lack of development in the activity over time, or a clear preference for avoiding growth.

A first category of entrepreneurs, i.e. FP1 and FP2, mainly relied on compliance strategies: they followed standard business strategies and obeyed most legal requirements. They endorsed the constraints of the regulatory context and/or oriented their business as a function thereof. This, however, can be problematic if regulation is shifting and ambiguous, leading to poor growth and development. In the 1990s, they were strong and considered exemplary in the sector. Unfortunately, their strategies did not succeed: today they are merely trying to survive, and are even thinking of changing their business activity.

A second category of entrepreneurs used avoidance practices: they tried to reduce interdependence with their context. Activities or relationships with actors deemed problematic were given up. For example, one not-for-profit entrepreneur had invested in motorised vehicles but reverted to donkey carts after encountering several problems (e.g. financial issues, delay of call for tenders, and damaged roads). These entrepreneurs felt small and powerless, mainly adopting a *laissez-faire* attitude towards formal and informal competition. They were waiting for something to happen in the sector, keeping their work as stable as possible in the meantime. Their ventures were the most stable over time. They neither grew nor suffered great losses.

By contrast, a third category of entrepreneurs more frequently adopted bypass approaches. As such, some of them mostly bypassed the rules imposed by the municipality, arguing that they acted in this way because of the municipality's weak management. Others found workable solutions or arrangements that fitted their objectives. This dominant strategy seemed to be paying off: these entrepreneurs' ventures have been growing steadily since their creation.

The findings show that these three dominant strategies have influenced three different development paths. Nevertheless, I pointed out in the previous section that entrepreneurs may implement several strategies in parallel. Therefore, the first objective is to shed light on the diversity of strategies and not to confine each entrepreneur to a specific category. As for absorption strategies, they have been implemented by all entrepreneurs and I did not observe any significant differences.

Table 2-3. Categories of dominant strategy

RESOURCES	INTERDEPENDENCES	COMPLIANCE FP1 et 2	AVOIDANCE NFP1, 2 & 3	BYPASS FP3 & 4, NFP4
EQUIPMENT	Difficult purchase and renewal of equipment Substandard roads and difficult transport Inadequate transit centres	Using trucks as a standard required by political authorities	No collection when it is raining Stop using tricycles	Disposing of waste in open unauthorised dumps Use of donkey carts, NGO help
FINANCE	Difficult access to bank loans Loss of income	/	Not applying for bank loans	Bank loans via other activities Hiding real revenues
CLIENTS	Recovery of payments Households' perception of waste Low standard of living	Having larger customers paying more	/	Collection of unauthorised waste
GEOGRAPHICAL	Unfair distribution of area (centre-periphery) Formal and informal competition	/	<i>Laissez-faire</i> attitude, stop fighting, submissiveness, keeping quiet and waiting	Undercutting informal prices
POLITICAL	No sanctions for illegal competition and households Delayed new call for tenders	Repeated request to the municipality to comply with legal requirements	Do not dare to speak	Acting without taking political aspects into account, unless it suits them
HUMAN RESOURCES	Low salaries Motivation	Hiring many people by anticipation of the amount of work, firing when problems	Weak controls/follow-up	Keeping many staff in spite of having trucks, purchase of personal motorbike, variable wage

2.5. Discussion

The findings show that resource dependence theory is helpful for shedding light on the multitude of practices that entrepreneurs deploy to cope with the uncertainty of their environments and how they overcome their contextual constraints (Casciaro & Piskorski, 2005; Drees & Heugens, 2013; George et al., 2016; Hillman et al., 2009; Nizet & Van Dam, 2014a), although they seem to rely predominantly on just one approach. This dominant strategy is crucial since it influences the venture's development path, leading either to survival, stability or growth (see Figure 2-3). In particular, the framework proposed by Nizet & Van Dam (2014) makes it possible to de-complexify the reality of strategies and to go up in the level of abstraction in a multifaceted empirical field.

However, I did not observe any specific strategies that tried to transform the context ('transformation', see section on theoretical background above) as defined in the typology of Nizet & Van Dam (2014). That is to say, there was little or no collective action or lobbying. In Burkina Faso, there are two waste management federations, one for not-for-profit ventures and another for for-profit ventures. But the data collected on this subject show that they no longer have any impact on the sector since the implementation of the waste master plan in the capital city, even if the will is there. Most entrepreneurs indicated that they either did not dare to talk or did not feel listened to.

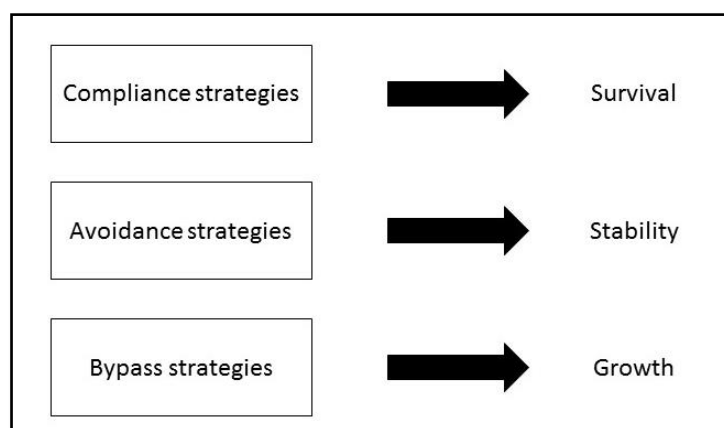


Figure 2-3. Typology of development paths linked with strategies

The analysis also showed that RDT is useful for the study of entrepreneurial strategies. Because the investigation shifted from an organisational level of analysis to an individual level of analysis, it adds to recent theoretical developments connecting RDT with entrepreneurship.

Although RDT has mainly been used at the organisational level, I follow several authors who suggest stretching its applicability to individual entrepreneurs to understand their relationships with their resource contexts, but also to shed light on how entrepreneurs could mobilise resources more successfully by overcoming challenging contexts (Arthurs, Busenitz, Hoskisson, & Johnson, 2009; Devine & Kiggundu, 2016; Harkins & Forster-Holt, 2014; Qian, Ma, & Miao, 2016). Qian et al. (2016) have explored RDT in the nascent stages of an entrepreneurial venture. They found that ‘power imbalance moderates the relationship between prior specific knowledge and students’ decisions to discover opportunities’. On the other hand, Harkins & Forster-Holt (2014) have examined how resource dependences affect the types of exit option that the entrepreneur will consider and choose. Most other studies investigate the relationships between new ventures and large powerful ventures (Harkins & Forster-Holt, 2014; Villanueva et al., 2012).

From another angle, this study examines resource dependences across the entire entrepreneurial process in a sector where entrepreneurs have been operating for a long time. In particular, it examines a system of dependences between regulators (municipality) and regulated (entrepreneurs) that has not been studied extensively in the existing literature (Pfeffer & Salancik, 2003). Moreover, it contributes to RDT by enriching the stock of empirical studies, casting light on an extremely uncertain context in an understudied African continent (Pfeffer & Salancik, 2003).

Several strategies are at work among the various entrepreneurs. Some of them succeed, for example FP3 and FP4, who act more as effectual entrepreneurs following the ‘Lemonade principle’ (Sarasvathy, 2001). Other entrepreneurs’ strategies fail, which is the case of FP1 and FP2, who seem to follow a more causal approach (Sarasvathy, 2001) in all their entrepreneurial practices. Therefore, a substantial challenge for the future of the present research will be to understand the important factors that affect entrepreneurs’ strategies and how entrepreneurs can manage their ventures to avoid making mistakes. In this particular context, RDT helps to reduce complexity thanks to an objective and rational view of uncertainty; indeed, most research using the RDT framework has explored ventures’ resource-mobilising practices from an instrumental perspective.

Nevertheless, RDT is not sufficient for several reasons. First, it does not explain why different entrepreneurs choose different strategies. It is not only a matter of status, since I observed that

opposite strategies were pursued by formal for-profit entrepreneurs who faced the same objective constraints. Second, RDT does not show how entrepreneurs learn from their context, or how they select information. However, it is clear that some constraints, and the dependences associated with these, are considered by some entrepreneurs to be problematic but not by others, for example among entrepreneurs who apply bypass strategies. Yet the way in which an entrepreneur selects information to grasp the context is a central aspect as regards the type of action taken by the venture when it reacts — thereby leading to the ‘enacted environment’ as perceived and shaped by each entrepreneur (Pfeffer & Salancik, 1978). A next step will be to develop a more subjective view of the resource mobilisation practices and perceptions of each entrepreneur. The literature about cognition and entrepreneurship should help to understand how entrepreneurs enact their context (Mitchell, Smith, et al., 2002a) and why this results in divergent strategies in objectively the same complex context.

One more perspective is also provided by the entrepreneurial bricolage theory that recently emerged in entrepreneurship studies (Baker & Nelson, 2005; Desa & Basu, 2013; Fisher, 2012). In resource-scarce contexts, entrepreneurial bricolage can be a strategic choice made by entrepreneurs ‘to create something from nothing’ because ‘they refuse to enact the limitations’ of their context (Baker & Nelson, 2005). I assume that the uncertain waste management sector of Ouagadougou offers a fertile field to observe interesting bricolage practices among some entrepreneurs.

Another limitation of RTD is that it says little about the impact of culture on dependences and strategies. At this stage, I failed to understand whether a more collective-based culture had any impact on entrepreneurial strategies to reduce contextual constraints. However, I did observe that cultural factors influenced practices, for example an old informal entrepreneur did not want to leave his area for the benefit of a new young entrepreneur who was young enough to be his son. In addition, the sector has shifted between tradition and modernity, under frameworks and management models imported by Western institutions like the World Bank or European organisations. Several authors have pointed out the Western anchorage of many theories and called for more critical distance in organisational and entrepreneurial studies (Bruton et al., 2007; Reinecke & Ansari, 2015; Vermeire & Bruton, 2016).

Moreover, the analysis shows that informality takes many forms in entrepreneurial activity and involves different strategies. It can be present everywhere, both within and outside the venture. Informality is found in competition and when confronted with this, some will try to fight it,

while others will try to absorb it, sometimes for the sake of efficiency, sometimes for the sake of solidarity. As can be seen among most entrepreneurs, informality makes it possible to diversify practices, for example by sorting certain wastes that are then resold to provide additional income for workers. Informality may enable some entrepreneurs to bypass some contextual constraints, by hiring workers unofficially or collecting waste in areas not allocated to them, thus producing illegal competition. As a result, entrepreneurs have to find strategies to deal with informality, although informality often suits them.

Informality is prevalent in most African economies and many definitions of informality, depending on the school of thought, can be found in the literature (Hillenkamp et al., 2013; Monga & Lin, 2015; Severino & Hajdenberg, 2016). It may concern activities that are not included in national statistics. For example, the official employment rate is low in many African countries, but many people are employed in the informal sector and it is difficult to obtain clear figures. Informality can also mean illegal activities or unregistered activities/ventures, i.e. that are not recognised by the state (Hussmanns, 2004). However, the informal sector provides a source of revenue for many people in Africa and actively participates in national production on the continent. It is therefore an important issue for African economies and ventures (Monga & Lin, 2015). As observed in the Ouagadougou case studies, there are many logics of action; sometimes these are based on solidarity and do not always obey the logic of profit accumulation as it is known in Western economic systems (Hillenkamp et al., 2013). Therefore, this aspect deserves particular attention when studying African entrepreneurship.

Finally, what can we learn from a practical point of view? First of all, entrepreneurs in the sector should no longer consider classical management theories as the miracle solution for accessing resources. For nearly thirty years, this strategy has not worked. On the other hand, it seems that the most appropriate strategy for growth is to bypass contextual constraints, even if this means not abiding by the law.

In this sense, political actors can also learn from this study that, given the inadequacies of the legal context in which they allow entrepreneurs to operate, it is in their interest to accept the deviating behaviour of some entrepreneurs, if they want the collection service to continue to be operated by these entrepreneurs. Otherwise, no one stands to benefit. At the same time, by knowing about, and better understanding the difficulties faced by entrepreneurs, they can also work to improve the framework so as to facilitate entrepreneurship in the sector and thus, indirectly, improve the efficiency of the city's waste collection service.

3. Paper II: Entrepreneurial perceptions and access to resources in uncertain environments: the case of waste collection entrepreneurs in Ouagadougou, Burkina Faso²

3.1. Introduction

This paper focuses on entrepreneurial perceptions to understand the different ways in which African entrepreneurs access resources in an uncertain environment. There is a wealth of literature exploring how entrepreneurs in various countries access resources in uncertain environments (Brouwer, 2002; Butler, Doktor, & Lins, 2010; Knight, 1921; McMullen & Shepherd, 2006; Milliken, 1987; Pfeffer & Salancik, 1978), but empirical studies have largely focused on ‘developed’, Western contexts (Bruton, Ahlstrom, & Obloj, 2008; Pfeffer & Salancik, 2003). The notion of ‘uncertainty’ has therefore mainly been considered at the market level, assuming relatively stable environments, at least at the regulatory level. By contrast, accessing resources in a context of nearly permanent uncertainty, as is the case in developing countries and, particularly, in Africa, is a challenge for entrepreneurs, especially for small-scale ventures (Kolk & Rivera-Santos, 2018).

While there has been some research on the objective conditions of resource access in Africa and, more broadly, in developing countries (Bruton et al., 2008; Kolk & Rivera-Santos, 2018), less is known about the subjective nature of this process, i.e. how entrepreneurs in these settings perceive their own capacities to access resources. Entrepreneurial cognition (Baron, 2004; Brigham, De Castro, & Shepherd, 2007; Krueger, 2003; Mitchell et al., 2007) is particularly useful to document the mental processes through which entrepreneurs assemble resources that are needed for them to survive and grow (Mitchell, Busenitz, et al., 2002). However, while the specific nature of cognition on the African continent has been documented (Bloch, 1998), so far it has been under-researched in the entrepreneurial context.

In particular, I suggest that it is relevant for entrepreneurship scholarship as a whole to report on the diversity of resource access practices and connect it with the diversity of mental processes that underlie these practices. Therefore, the research question is the following: *how*

² Paper co-authored with Benjamin Huybrechts and Frédéric Dufays and presented in the 13th Annual Social Entrepreneurship Conference (Los Angeles).

can entrepreneurial perceptions help understand the diverse avenues through which African entrepreneurs access resources in an uncertain environment?

The study deals with the waste management sector in Ouagadougou (Burkina Faso), which is characterised by a very high level of regulatory uncertainty. In particular, public regulation has been continuously changing and is subject to much ambiguity, persistent rumours, ethical challenges and delayed reforms, leaving waste collection entrepreneurs unable to rely on a stable regulatory framework. Nonetheless, since the 1990s, several entrepreneurs — both formal and informal, for-profit and not-for-profit — have developed waste collection activities despite the unstable and ambiguous environment.

In order to unveil the role played by entrepreneurial perceptions in the diverse approaches to resource access, I focus on the perception of resource accessibility and break it down into three components: the perception of environmental uncertainty, the perception of the venture's mission, and the entrepreneur's self-perception. On the basis of the findings, I identify three possible 'perception-practice' patterns, each of which features a relationship between entrepreneurial perception and specific resource access practice: 'submissive', 'oscillator', and 'opportunistic'. Both submissive and oscillator entrepreneurs feel constrained by external actors in their access to resources, however the former adopt a *laissez-faire* approach, whereas the latter rely on the prescriptions of mainstream management theories to deal with uncertainty. By contrast, opportunistic entrepreneurs have a positive perception of environmental uncertainty and of their own capacity to succeed, which leads them to view resources as very accessible and to turn potential threats into opportunities.

This study intends to make two main research contributions. First, it contributes to a better understanding of how African entrepreneurs enact their environment by documenting the role of cognition in mobilising access to resources. I detect the interplay between different types of perception and resource access practices, thus explaining why such practices vary despite a common, uncertain environment. Second, the research contributes to a better understanding of the specificity and diversity of African entrepreneurship in terms of both entrepreneurial cognition and access to resources (Bruton et al., 2008; Kolk & Rivera-Santos, 2018). I suggest that such diversity reflects the variety of entrepreneurial positions, located in between local, traditional economic practices and international business influence.

The article proceeds as follows. First, the theoretical section explores how entrepreneurs access resources under uncertain conditions, emphasising the lack of research on the role of entrepreneurial cognition in this process, in particular in the African setting. The second section describes data collection and analysis and delineates the waste management sector in Ouagadougou. Next, I present the findings, after which I discuss the theoretical contributions of the study, acknowledge its limitations, and propose avenues for future research. I conclude with several practical implications.

3.2. Theoretical background

A wealth of research has examined the interplay between the environment and entrepreneurial behaviour (Welter, 2011). When conditions of high uncertainty prevail, ambiguity and institutional void (Mair & Marti, 2009) may provide some leeway for entrepreneurs in their everyday practices as well as in their access to, and interpretation of information. McMullen and Shepherd (2006, p. 135) describe uncertainty as a subjective experience, in that ‘different individuals may experience different doubts in identical situations’ (see also Duncan, 1972).

Research on entrepreneurship and uncertainty is abundant; however, it has largely focused on market uncertainty and opportunity identification at the early stages of venture creation (Brouwer, 2002; Butler et al., 2010; Freel, 2005; McMullen & Shepherd, 2006). McMullen and Shepherd (2006) identified two streams of research on the role of uncertainty in entrepreneurship. The first stream focuses on its preventive role, which depends on the level of uncertainty perceived by entrepreneurs. The second stream addresses entrepreneurs’ ability to bear uncertainty, that is, to function deliberately and effectively in uncertain environments (Butler et al., 2010). Within this second stream, however, there has been little research on the diversity of entrepreneurial perceptions in a common uncertain context and the potential that this diversity has to increase the understanding of diverse resource mobilisation practices (Casciaro & Piskorski, 2005; Hillman et al., 2009).

The role of cognition — including perceptions — in the entrepreneurial process has been receiving increased attention. Following Krueger (2003), who argued that perceptions drive intentions, considering entrepreneurial cognition has become fundamental to understanding the emergence and development of ventures. Mitchell et al. (2007) invited scholars ‘to further develop the link “thinking-doing” in entrepreneurship research’ in order to better anchor the role of the individual in the entrepreneurial process (Mitchell, Busenitz, et al., 2002). They

defined entrepreneurial cognition as ‘the knowledge structures that people use to make assessments, judgments, or decisions involving opportunity evaluation, venture creation, and growth’ (p. 97). In particular, they pointed out the role of mental models to assemble the necessary resources that entrepreneurs need to create and develop ventures. Brigham et al. (2007) studied the link between entrepreneurs’ cognition and their environment. They found that the way in which entrepreneurs think might explain why some entrepreneurs behave differently from other entrepreneurs in a given situation. R. A. Baron (2004) emphasised that entrepreneurs’ perceptions of their environment might help to better understand why some entrepreneurs are more successful than others.

I suggest that further research highlighting diverse approaches to accessing resources in relation to diverse types of entrepreneurial cognition is needed — and that this is particularly relevant in Africa. Although mental processes have been shown to be culture-dependent (Alexander & Honig, 2016; Hayton, George, & Zahra, 2002; Mitchell, Smith, et al., 2002b; Wadson, 2008) and their specific features in the African context have already been documented in the disciplines of anthropology and sociology (Bloch, 1998; Fabian, 1999), research examining entrepreneurial cognition in Africa remains scarce (Unger et al., 2009; Urban, 2010). To help fill this gap, I will unpack views of resource accessibility and suggest that they may be driven by perceptions at three different levels of analysis: perception of uncertainty at the environmental level, mission perception at the venture level, and self-perception at the individual level.

First, the perception of an uncertain environment as either given or flexible (and thus a source of opportunities) is likely to play a role in terms of how entrepreneurs access crucial resources. Although scholars do acknowledge that environments are ‘enacted’ by entrepreneurs in search of resources (Brigham et al., 2007; Duncan, 1972; Krueger, 2003; Lipshitz & Strauss, 1997; McMullen & Shepherd, 2006; Milliken, 1987; Pfeffer & Salancik, 1978), there has been little research on how entrepreneurs subjectively take into account their environment when accessing resources. Examining how the environment is perceived by entrepreneurs is even more relevant in under-studied cultural contexts (Casciaro & Piskorski, 2005; Drees & Heugens, 2013; Hillman et al., 2009; Margiono, Zolin, & Chang, 2017; Nizet & Van Dam, 2014a), particularly in Africa (Mori et al., 2013; Ouma, 2007). With its more collective-based and reciprocity-oriented culture, Africa provides both a distinct and promising setting to examine specific ways of perceiving and managing uncertainty (Hillenkamp et al., 2013).

Second, entrepreneurs are likely to perceive resource accessibility differently depending on the mission pursued by their venture. The variety of venture missions is particularly high in ‘mixed-form markets’ composed of both for-profit and not-for-profit ventures (Becchetti & Huybrechts, 2008; Marwell & McInerney, 2005), as is the case in the sector I am examining. Previous research assumed that the general orientation — either for-profit or not-for-profit — would determine how entrepreneurs behaved in an uncertain environment. Because they pursue a social mission, not-for-profit entrepreneurs are expected to favour community resources, such as grants and voluntary work, over financial resources, preferring trust and proximity to growth and opportunism (Becchetti & Huybrechts, 2008; Heinrich, 2000; Marwell & McInerney, 2005). By contrast, for-profit entrepreneurs are expected to have greater access to capital and financial resources, and to possess a greater ability to seize value-capturing opportunities (Marwell & McInerney, 2005). However, the relevance of the divide between for-profit and not-for-profit has been questioned in developing countries, in particular in Africa, where entrepreneurs often belong to vulnerable groups: income generation is vital for their survival and the social needs of their communities (Kuada, 2015).

A third approach to entrepreneurial perceptions in relation to accessing resources is to examine how entrepreneurs perceive their own capacity at the individual level to access resources in an uncertain environment. Self-perception has mostly been addressed in the entrepreneurship literature through the concept of self-efficacy. Generally speaking, self-efficacy refers to an individual’s belief in their personal ability to influence events that affect their life (Bandura, 1994). In entrepreneurship, self-efficacy has often been limited to an individual’s belief in their ability to accomplish a specific set of tasks and is shown to be a key antecedent to entrepreneurial intention (Boyd & Vozikis, 1994; McGee, Peterson, Mueller, & Sequeira, 2009). Entrepreneurial self-efficacy also positively influences the performance of very young firms, an effect that tends to decrease over time (McGee & Peterson, 2017). It has been suggested that antecedents of entrepreneurial self-efficacy may include the presence of role models (BarNir, Watson, & Hutchins, 2011), education (F. Wilson, Kickul, & Marlino, 2007), or cognitive style (Barbosa, Gerhardt, & Kickul, 2007).

However, to the best of my knowledge, research on the relationship between self-efficacy (and self-perception in general) and access to resources is limited. Krishnan, Netemeyer, & Boles (2002) have shown that individuals with a higher self-efficacy were better at convincing stakeholders of the value of their product or service, hence the hypothesis that they can access

resources more easily (Riedo, Kraiczy, & Hack, 2017). Other studies look at how entrepreneurs' self-image, i.e. the extent to which an individual entrepreneur perceives themselves as an entrepreneur (Verheul, Uhlaner, & Thurik, 2005), is influenced by cognition (Krueger, 2003). I suggest that the study of African entrepreneurs is likely to reveal specific modes of self-perception influenced by the local context but, also, by exposure to international influence (Ellis & Fauré, 1995; Kamdem, 2001b). In an African setting, the rationalities of entrepreneurs are particularly heterogeneous and may lead to different opinions on necessary resources and how to access them (Kamdem, 2002).

In conclusion, I have identified three levels of analysis regarding entrepreneurial perceptions of resource accessibility, each of which has a specific resonance in the African context. I suggest that, within this setting, different perceptions of resource accessibility may co-exist, and that such differences are likely to play a role in resource mobilisation practices. In order to document this diversity of perceptions in relation to possible approaches to accessing resources, I will next set out the research context and methods used for my empirical study.

3.3. Research site and methods

3.3.1. Research context

Waste management is a critical issue in cities, mainly in connection with health and sustainable well-being (Wilson et al., 2015). I chose the waste management sector in Ouagadougou because it provides an emblematic illustration of a very uncertain environment featuring unstable access to resources. For more than sixty years, sub-Saharan African countries — and Burkina Faso in particular — have undergone increasing urbanisation due to a massive rural exodus. In the context of globalisation, African cities are facing a demographic explosion and, therefore, an increase in formerly unknown types of waste (Bouju & Ouattara, 2002; Jaglin, 1995; Traoré, 2011).

Since Burkina Faso became independent in 1960, the landscape of waste management in the country and, particularly, in its capital, has undergone several transformations. Initially managed by the government, in the 1990s the sector was opened up to private entrepreneurs, both not-for-profit and for-profit (Fournet, Meunier-Nikiema, & Salem, 2008; Meunier-Nikiema, 2007). Under the auspices of the World Bank, the country adopted a master plan for waste management in 2000 (Dessau-Soprin, 2000; PSRDO-CER, 2010) as part of its structural

adjustment policies to privatise public services deemed inefficient. The plan consisted of a public–private partnership between the decentralised service of the Municipality of Ouagadougou and several waste collection ventures. Under this partnership, a tender was launched in 2003 that compelled the waste collection ventures to enter into economic interest groups (EIGs) in order to obtain a commercial status and be allowed to participate in the call for tenders.

At the same time, the city was divided into twelve collection areas according to population density. These areas were shared among the nine selected EIGs regardless of the location of the latter’s headquarters. Within the EIGs, waste collection entrepreneurs are autonomous; they pick up household waste within their areas and recover payment from their customers (households) directly. They do not receive any subsidies from the municipality and must create various pricing levels according to households’ incomes.

Since the launch of the master plan, several problems have arisen and have been undermining the sector’s operation. Ventures that had not applied for the tender, or had been rejected, continued their collection activities, thus creating ‘unfair’ competition for the official contracting entrepreneurs under the tender (Sory, 2013). In addition, collection areas were not equitably distributed among the EIGs, thus generating profitability imbalances (e.g. peripheral areas are less profitable because their population is less wealthy) (Sory & Tallet, 2012). Moreover, the municipality, which is supposedly in charge of regulation on, and public awareness of waste management (and therefore of enforcing the mandatory subscription of households to a collection service) has failed to fulfil its role.

The instability of the sector makes waste management very complex and uncertain, forcing players to experiment with practices while having little ability to predict their outcomes (Sory, 2013). Waste management entrepreneurs have navigated this situation in different ways; some of them are highly successful, while others are struggling to survive (Traoré, 2007). Therefore, Burkina Faso is a particularly rich research site if I wish to understand how entrepreneurs deal with uncertainty and access resources necessary for their development.

3.3.2. Data collection and analysis

I adopted an abductive research approach, relying on regular iterations between theory and data (Dubois & Gadde, 2002; Timmermans & Tavory, 2012). Although the theoretical framework

contains three levels of analysis to examine perceptions (individual, organisational, and environmental), their relationship with resource accessibility was explored in an open, exploratory way. To discover the diverse perceptions of African entrepreneurs and their contribution to the resource mobilisation process, I carried out comparative case studies, which are suitable for exploring the underlying drivers of an empirically observed phenomenon (Yin, 2009).

The data collection took place over a four-year period (2014–2017) and consisted of three stages. First, I conducted an exploratory study in 2014, interviewing 35 actors in the waste management sector in Ouagadougou (e.g. municipality officials, waste collection entrepreneurs, and recyclers). In addition to providing useful contextual information, these exploratory interviews enabled me to identify nine waste collection entrepreneurs leading an EIG and considered by all interviewed stakeholders as emblematic of the sector. Seven out of these nine entrepreneurs were interviewed during the first phase, with two of them failing to answer my request. I also interviewed the entrepreneur of an informal but well-structured not-for-profit venture (collecting waste unofficially). In 2015, during the second field research stage, I re-interviewed the eight entrepreneurs as well as nineteen members of their staff (e.g. secretary/accountant, waste collectors, and other employees). Third, out of these eight interviewees, I selected four relevant entrepreneurs to gather additional, more in-depth information; this took place in 2015 and during a follow-up visit in 2016. Thus, in total, I conducted 44 interviews, including twelve with the main entrepreneurs.

The selection of case studies was guided by two criteria: homogeneity (EIG leadership, location, age, formal status, and sector of activity) and purposeful contrasting (organisational forms), which enabled theoretically meaningful comparisons across the case studies. Homogeneous factors included: leadership of an EIG; location (all the entrepreneurs operate in Ouagadougou, Burkina Faso); sector of activity (waste management); age (approximately 25 years of experience); and formal status (legal incorporation and inclusion in the public-private partnership scheme with the municipality). The main contrasting factor was organisational form/mission: I selected two for-profit and two not-for-profit entrepreneurs to explore whether venture mission influenced resource mobilisation practices. To avoid gender-biased conclusions (Burger-Helmchen, 2012), I purposefully selected one male and one female entrepreneur for each type of venture. Moreover, I made sure that the for-profit and not-for-

profit ventures were not too dissimilar in terms of household revenues in their areas. Table 3-1 summarises the main information for the four case studies.

In addition to the semi-structured in-depth interviews (43 hours in total), daily work observation and participation in formal and informal meetings yielded further data during the two periods of data collection. For each of the four case studies, I followed the employed waste collectors and conducted several informal discussions, which I summarised in daily notes. I participated in two meetings of two EIGs, the contents of which I also added to the daily notes. The participant observation helped to better understand the link between perception and practice. More specifically, I observed how the entrepreneur gathered the required resources, how he or she managed the collection activity, and how he or she managed the employees. It also made it possible to better interpret the ‘verbal’ as the ‘non-verbal behaviour’, an important element in a research that studies perceptions (Hall, 1992). Moreover, I analysed 44 relevant documents, including 17 legal texts and municipal documents (e.g. master plans), 7 documents produced by the waste collection ventures, 11 reports/presentations by municipal, non-governmental organisations and experts documenting the issues and challenges of the sector and, 9 studies of the sector. The different sources allowed for triangulation and, consequently, increase the validity of the findings (Yin, 2003).

Table 3-1. Overview of case studies

	NFP1	NFP3	FP1	FP3
Form	Not-for-profit	Not-for-profit	For-profit	For-profit (former Not-for-profit)
Gender of entrepreneur	Male	Female	Male	Female
Year of venture creation	1995	1999	1993	1996
# of employees	17	20	17	40
# of clients	400	1,200	3,500	4,000
Collection area	Central, rich	Peripheral, middle income	Central, rich/middle income	Peripheral, low income
Collection means	Motorised engine and donkey carts	Donkey carts	Motorised engines	Donkey carts

Note: NFP = not-for-profit, FP = for-profit.

Monographs of the four case studies were written by the first author and reviewed by the other authors to enable in-depth understanding of each. Then, the interview transcripts, documents, and observation notes were coded with the help of the NVivo 11 software, following the ‘Gioia’ coding method (Gioia et al., 2013; Strauss & Corbin, 1997). A first coding exercise was conducted by the first author and then gradually enhanced by the other authors at monthly meetings. By improving the data framework, I was able to compare the four case studies for all first-order codes, gradually developing cross-case comparisons, i.e. I assessed and mapped the different codes to find similarities and differences among the entrepreneurs and to answer my research questions.

I structured the various perceptions of the entrepreneurs as second-order codes, following the three levels of analysis (perception of environmental uncertainty, mission perception, and self-perception), which were then connected with different approaches to accessing resources (see Figure 3-1). The cross-case comparisons allowed me to delineate three main entrepreneur profiles which, I suggest, illustrate the framework since they offer three contrasted approaches to accessing resources in an uncertain environment. Finally, I selected relevant interview quotes and document citations at each intersection of code and case study. All interviews were transcribed *verbatim* and professionally translated from French into English.

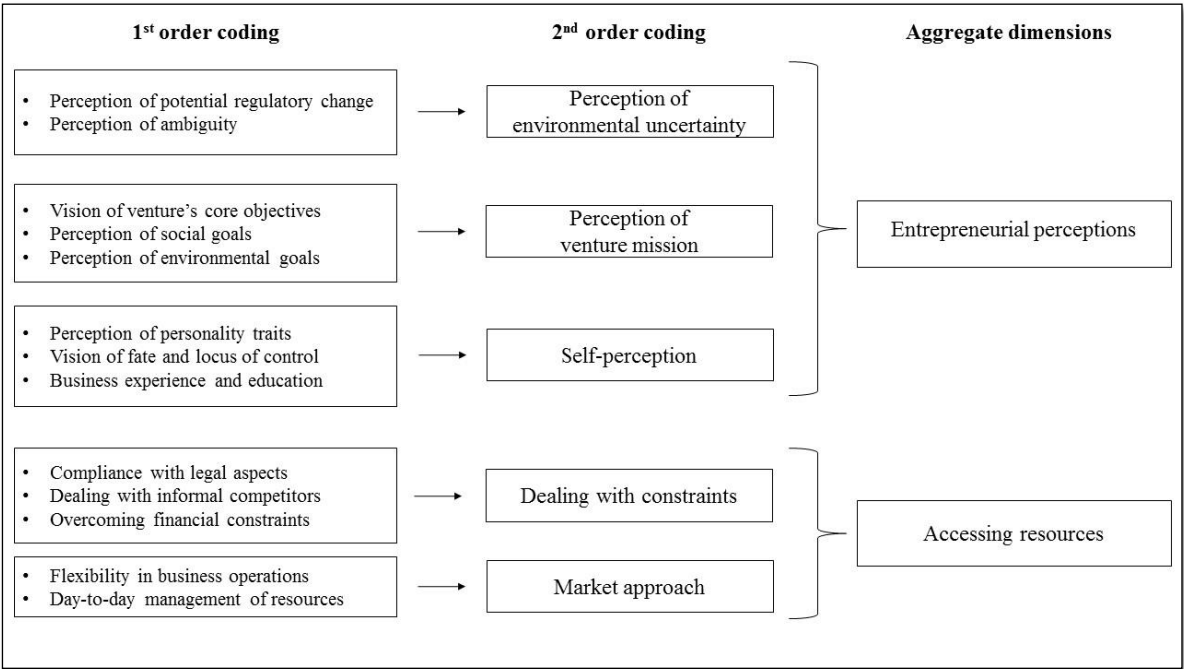


Figure 3-1. Data structure

3.4. Findings

3.4.1. *Entrepreneurial perceptions*

I will first examine how entrepreneurs perceive uncertainty at three different levels: the environment, their venture's mission and, themselves.

3.4.1.1. Perception of environmental uncertainty

Surprisingly, while environmental uncertainty has been described as problematic for entrepreneurs (Lipshitz & Strauss, 1997; McMullen & Shepherd, 2006; Thompson, 1967), only one entrepreneur (FP1) mentioned it as such. Instead, the not-for-profit (NFP) entrepreneurs perceived regulatory uncertainty as an acceptable and comfortable situation because it gave them enough latitude to do what they wanted. These entrepreneurs worked on a day-to-day basis and did not feel threatened by the prospect of future change as long as nothing concrete was due to happen in the short term. They were conscious of possible threats but did not incorporate them into their actions if they did not materialise. For example, they knew that the municipality might decide to restrict waste collection to for-profit (FP) entrepreneurs, or that their customers might subscribe to the competitor's services even though regulation was supposed to reserve each zone to a single approved venture. Because these interviewees were unsure whether future changes would be favourable or not, they preferred the status quo. Moreover, they shared a religious belief that resource accessibility depended on God's will, so the only possible course of action was to submit oneself to fate. In keeping with the local culture, living from day to day and in harmony with one another (Laurent, 1998) was strongly preferred over trying to change the environment and fighting against other market actors (municipality, formal or informal competitors, and households). NFP3 described it as such:

What God gives to us, we just take it and go on.... We do what we can with what we already own.... For the moment, we are well, we work. I know that the future call for tender could make things complicated for us.... Blurriness suits us!

By contrast, entrepreneur FP1 felt much tension coming from this uncertainty, hoping for a better future:

I don't like uncertainty, I run away.... I always wait [until] the waste environment becomes more secure, because I run my business taking the environment into account....

As for entrepreneur FP3, she perceived regulatory uncertainty neither as a comfort nor as a tension or constraint, but as an opportunity. For example, she perceived competition from informal actors as a sign of performance. She believed that she could absorb any change, using her experience to anticipate and adapt to change in the environment:

I am used to change; it is not a problem.... I go where I see a commercial need.... There is a method for everything, a solution for every problem.... If competitors can have ideas, so can I!

The surprising conclusion is that three out of the four entrepreneurs perceived environmental uncertainty as comfortable. FP3 did so because she detected opportunities within uncertainty and believed that access to resources mainly depended on herself and her strong capacity to grow on the market. As for the two NFP entrepreneurs, they perceived the absence of change as comfortable and only relied on resources that they could afford. They viewed uncertainty as a given and, therefore, not as a concern; this meant that their own resource accessibility was dependent on God's will and the municipality's actions. Finally, only FP1 worried about uncertainty and considered his access to resources as very precarious, which he desperately tried to fix by clinging to recommended practices.

As will be highlighted next, such positive (or negative) views of environmental uncertainty seemed to play a major role in how each entrepreneur perceived the accessibility of resources and, subsequently, on their actual resource mobilisation strategies.

3.4.1.2. Perception of venture mission

The findings indicate that, beyond environmental uncertainty, the perception of the venture's mission also played an important role in shaping entrepreneurs' views of their capacities to access and mobilise resources. Surprisingly, none of the entrepreneurs mentioned preserving the natural environment as a central mission. Rather, they specified either a social purpose — providing employment to poor people — or the ambition to generate the highest possible revenue from their entrepreneurial activity.

NFP entrepreneurs clearly mentioned that solidarity lies at the core of their mission. Their main goal was to provide employment to poor women, often widows. As a result, their priority was to be able to pay salaries every month. This prevented them from taking great risks and led them to favour stability. As stated by one of the NFP entrepreneurs:

Our objective is the fight against poverty, because the women working here are all old and widows, only two or three have a husband. They need to earn [something] to pay [for] soap and feed their children. As we are a not-for-profit, with the little we have, we want to recruit more people to give them jobs and to increase salaries. (NFP3)

Entrepreneur NFP1 also mentioned serving the population to improve their living environment:

We work in the waste [area] to eat but also to make people happy. Because when the neighbourhood is dirty, we are not happy. It causes lots of health problems, especially because it is often the task of children to throw the waste in the street and they are in presence of lots of germs.

By contrast, FP entrepreneurs were, quite logically, more focused on revenue generation and, to a lesser extent, environmental or social considerations. Entrepreneur FP1 insisted that he wanted to live off the revenue of his activity as a precondition for his own survival as a businessman:

Even if we are sensitive to health and hygiene, to the environment, as a firm, we have to survive.... If we let us go with the flow of excessive enthusiasm and ambition, we will not get there for a long time. So, as a businessman, I prefer to function with the minimum [of resources].

For FP3, the entrepreneurial mission was clearly oriented towards maximising profits, growth and entering larger markets, which led her to explore new resources and do everything to access them:

The main objective is that the enterprise grows. Yet, I am present in two cities, Ouagadougou and Bobo. So, I can easily go elsewhere because I have experience. I want excellence. We want to work in other regions, work in partnership with other firms.... In a business, you must pay taxes, so it forces you to work hard, it forces you to grow. The not-for-profit, it is mainly social, but I pay taxes, I declare the people, so I have to grow.

In brief, the entrepreneurs' perceptions of resource accessibility were aligned with their perceived mission as a venture. FP3 viewed access to resources as an exciting challenge that was part of the profit-driven conquest of new markets. By contrast, entrepreneurs FP1, NFP1

and NFP3, despite pursuing different missions, all perceived resources as difficult to access. NFP entrepreneurs emphasised that they did not want to jeopardise their social commitment to marginalised people by taking the risk to explore new resources. FP1 wanted to live off his activity and make a profit by adopting a scientific management role that did not tolerate any uncertainty.

3.4.1.3. Self-perception

Finally, the perception of resource accessibility may depend on the way in which entrepreneurs perceive themselves at the individual level. ‘Self-perception’ thus refers to how they perceive their own skills, education, background, position, and personality.

NFP entrepreneurs had a low education level and felt marginalised within the sector. They faced difficulties in expressing what they thought of themselves. They felt powerless, relying mainly on fate and God’s will to access resources and live in harmony so as to help poor women. During the interviews, entrepreneur NFP3 often repeated:

We are small. Who dares to speak up? All of us, the little we earn — if God blesses it — is okay. Because no one knows what will happen.... The most important thing is that we get on well with everybody.

In contrast with their NFP counterparts, FP entrepreneurs felt more ambitious. Nevertheless, there were significant differences between the two FP entrepreneurs. FP1 desperately wanted to succeed and relied on knowledge acquired during his Master’s degree to set up a consistent development strategy. However, high uncertainty surrounding the environment constantly made him abandon or modify his strategies, leading to a negative opinion of himself. To maintain high-quality standards and because of his personality, he preferred to focus on a single activity and avoid diversification:

I am not a good negotiator, I can be a good worker, to organise things, see if it works but I don’t have the disposition of a businessman, that can negotiate on markets, find new ones.... I prefer to keep things simple.

The other FP entrepreneur (FP3) came from a family of entrepreneurs and viewed herself as a skilled businesswoman who had entrepreneurship in her blood. She gave the impression of being a leader, both in her venture and within the whole sector, and this drove her positive

perception of resource accessibility through hard work, autonomy, and reputation. She described herself as ambitious, self-confident, and eager to grow:

I have a superior level to others. It is work that makes my success. I work a lot. Because when you have a certain education level, you have a different vision, you think a lot how to reach your goal [...] It is true that illiterate people succeed in the waste [business] but I think training and education helps a lot. [...] I am more structured; the others have no identity.

I left the not-for-profit status because as we say, we cannot have two captains in the same boat.... Now, I must change status and go to SARL [Société à responsabilité limitée] because of my increasing turnover. But I will try not to have associates. Because I could grow alone so I will not go into partnership to regress. I want to be able to decide.

The findings indicate that self-perception plays an important role in an entrepreneur's perception of resource accessibility. NFP entrepreneurs in my case studies did not believe that they could influence their environment and, consequently, did not feel able to improve their own access to resources. By contrast, entrepreneur FP3 felt powerful; she thought that she could mobilise and access resources through her hard work and reputation, independently of others. Entrepreneur FP1 was located in between these two patterns.

3.4.2. Accessing resources

I now turn to examining how the perceptions described in the previous section help us understand the diversity of approaches to accessing resources. By connecting each type of entrepreneurial perception with its attendant practices, I propose three possible patterns of access to resources. I labelled these patterns, embodied by the interviewed NFP entrepreneurs, FP1, and FP3, as follows: 'submissive', 'oscillator' and 'opportunistic', respectively.

The first entrepreneurial approach, 'submissive', was found among the two NFP entrepreneurs, who were characterised by a very constrained perception of their opportunities, and thus of resource accessibility. As a consequence, the NFP entrepreneurs heavily relied on the municipality's resources, including legal contracts, approved area for collection, appropriate transit centres, etc. They did not explore options beyond their current resources or try to access the municipality's resources, although such submissive behaviour seemed to have a negative economic impact:

During winter, the municipal truck does not come to the transit centres to empty the waste because they get bogged down in the final garbage dump. That means that we cannot collect the households' waste sometimes [for] two weeks because there is no place free for that. Therefore, some households cancel their subscription to our service, which is a loss of income. (NFP1)

For more than three years, the NFP entrepreneurs felt threatened by informal waste collectors who used the same collection means (donkey carts) and operated in the same areas. As one entrepreneur explained:

Informal actors are not in the call for tender, they don't pay any taxes, they aren't regulated. The municipality began to sanction them with the police but with the mutiny of 2011, they are afraid of people's reactions, so they sent letters to stop sanctioning informal actors, so we are there, waiting.... But the true problem is that they want to mix politics and business. (NFP1)

In this context, because submissive entrepreneurs perceived themselves as being totally subjected to the resources made available by the municipality and by God's will, they did not see any other option than continuing to work with the resources at hand. They adopted a *laissez-faire* attitude because they were afraid of any change and were trying to survive while enduring the situation. They did not dare to enter into any disagreement with the resource-providing stakeholders in the sector, in particular the municipality and households:

As we don't know what will come, everybody has slowed down.... I am the president [of the NFP] but for the moment, I cannot say anything.... What the Municipality says, we follow. (NFP3)

To avoid problems, fights, we are obliged to keep quiet.... If you [...] fight, they say that they will cut your head [off]. So, as we don't want problems, we keep quiet. (NFP3)

The two FP entrepreneurs behaved according to two contrasting patterns in terms of accessing resources, which I defined as 'oscillator' and 'opportunistic'. FP1 was associated with the oscillator approach, relying on Western management theories to try to deal with uncertainty, albeit with little success. When he felt that the environment was becoming favourable (e.g. future call for tender), he began hiring people and investing in material (e.g. trucks). When he perceived possible threats or crises, he tended to fire or replace people, move to a smaller office,

and so on. This happened, for example, when the call for tender was delayed for the first time and during the political crisis following a popular uprising in 2013. After working in the sector for a long time, he also felt constrained by public (including legal) resources in the hands of the municipality. He viewed his development path as largely dependent on these resources — for example, the sanctioning of informal competitors (he wanted to organise them and outsource work to them in the future call for tender) or the state of the roads that damaged his equipment and slowed down his work:

Take the roads, it is nonsense! You drive there, and you ruin your equipment in just a few months because the rubbish is heavy. I had to abandon my theory and face reality: it doesn't work! You will see that all the entrepreneurs have old material, it is not renewed; we don't have the means to maintain it so we cannot even think to replace it.... I know now that the key to success is the municipality.... Without this, we cannot even breathe!

By contrast, the other FP entrepreneur, FP3, adopted an opportunistic approach, exploring new resources autonomously thanks to her very positive perception of resource accessibility. For FP3, public and legal resources were not a problem and could be bypassed. For example, she circumvented the problem of unemptied transit centres by throwing the waste in illegal dumps.

The fact that the municipality doesn't empty the transit centres is not a problem. We go to quarries; people even ask [us to do] that because if they remain empty, children can drown when it is raining, so we fill the holes. The transit centres are not appropriate for the quantity of waste we collect; the municipality has no solutions.

She did not believe that throwing away waste in this way was illegal, because in the absence of a solution provided by the municipality, she felt entitled to finding an alternative. She also felt strong enough to compete against other ventures and enter other markets whenever necessary. Unlike the other entrepreneurs, since she did not perceive informal competitors in her approved area as a significant threat, she felt that she could squeeze them out by reducing her prices:

I can make them disappear every time they appear. It is not a problem for me, they cannot affect my work, they are not structured and regular with the work.... An informal actor came to negotiate with me, [saying] that he would not survive if I lowered my

prices; he cried. So, we made an agreement, we determined areas, I outsourced him one area and he pays something in return.

The entrepreneurs also had contrasted perceptions of their chances to access financial resources. Entrepreneurs following the submissive and oscillator approaches believed that public help (loans or subsidies) was crucial to profitability within the sector. They wished to diversify their activities to have other incomes, but believed that they could not afford diversification for the time being. Conversely, the opportunistic entrepreneur viewed herself as independent from public loans or subsidies. Instead, she relied on public contracts, regularly participating in public calls for tender. She also invested in several activities, such as the cleaning of large sites, a restaurant, and other smaller-scale operations.

In summary, the perception of dependency on the resource environment, especially as regards public/legal resources from the regulatory environment, was a strong discriminating factor among entrepreneurs. In the eyes of those following the submissive or oscillator approaches, resources were linked directly or indirectly to the municipality, and they believed that they had little control over them. By contrast, the opportunistic entrepreneur acquired alternative resources in order to bypass the municipality's limitations and become more efficient.

Table 3-2 summarises the findings, showing how the three types of entrepreneur experienced different types of perception and how this may be connected with different approaches to accessing resources.

Table 3-2. Entrepreneurs' perceptions and their role in shaping the entrepreneurs' resource-accessing approach

		Oscillator FP1	Submissive NFP1 & NFP3	Opportunistic FP3
Entrepreneurial perceptions				
Perception of environmental uncertainty	Potential regulatory change	Stress	No means to face changes	Opportunity, used to change
	Perception of ambiguity	Uncomfortable	Comfortable	Comfortable
Perception of venture mission	Venture's core objectives	To survive in the long term as businessmen do (earn a living)	To increase salaries	To grow and win new markets, to gain a good reputation
	Social dimension	Focus on retaining employees and paying wages	To give jobs to poor people and improve their livelihoods	
	Environmental dimension		Contribute to cleaner neighbourhoods (peripheral goal)	Raise awareness of the value of waste (peripheral goal)
Self-perception	Personality traits	Ambitious, honest, cannot work for quantity but for quality	Striving for solidarity and harmony	Self-confident, ambitious
	Fate and locus of control	Much depends on the municipality	Much depends on God's will	Much depends on the entrepreneur's actions
	Business experience and education	Not a good businessman but has experience in the sector Importance of Master's degree	Limited skills but experience in the sector	Entrepreneurship in the blood, much experience Importance of continuing education
Approaches to accessing resources				
Dealing with constraints	Compliance with legal requirements	Waiting for regulatory changes and complying with legal prescriptions	Waiting for municipal solutions, illegal waste dumping if needed	Illegal waste dumping if needed
	Informal competitors	Wants to organise and outsource to informal people	Support informal people	Fights informal competition by reducing prices
Market approach	Financial constraints	Stops diversification Need for financial help	Need for public and/or private aid/loans to diversify activities	Diversification of funding (via other activities, other area, banks, ...)
	Flexibility in business operations	Low: following theoretical management prescriptions	Medium: <i>laissez-faire</i>	High: adapting to and creating opportunities
	Day-to-day resource management	Going back and forth (hires and fires people, buys and resell equipment, ...)	Dealing with available resources	Exploring new resources

3.5. Discussion

The findings suggest that perceptions regarding environmental uncertainty and mission, together with self-perception, can be associated with distinct approaches to accessing resources despite a common, uncertain environment. I identify three possible ‘perception-practice’ patterns (opportunistic, submissive, and oscillator) that reflect the diversity of entrepreneurial behaviours when facing the same uncertain regulatory environment. I do not suggest that these three entrepreneurial approaches encompass the whole spectrum of resource accessibility perception and practice patterns among African entrepreneurs. Rather, I highlight their variance in a common uncertain context and explain how they depend not only on objective business conditions and the entrepreneurs’ resource environment, but also on subjective perceptions of resource accessibility.

First, the findings contribute to highlighting the link between cognition and access to resources in the case of African entrepreneurs (Baron, 2006; Brigham et al., 2007; Krueger, 2003; Mitchell, Busenitz, et al., 2002). They enable us to understand how the relationship between entrepreneurs, their ventures and the context are enacted by, and go hand in hand with resource-related practices. As such, the paper contributes to bridging cognitive with resource-based approaches to entrepreneurship (Brigham et al., 2007; Edelman & Yli-Renko, 2010). Diverging perceptions help explain, at least partially, why approaches to accessing resources may vary despite a common environment, and in which ways they differ. Such a fine-grained understanding of resource-access perception might provide a complementary explanation to findings showing its non-significant mediation role between environmental munificence and entrepreneurial effort (Edelman & Yli-Renko, 2010).

Entrepreneurs following the ‘submissive’ and ‘oscillator’ approaches only try to mobilise resources at hand because uncertainty in the environment, is perceived as a permanent constraint. Submissive entrepreneurs even perceive environmental ambiguity as more acceptable and comfortable than potentially hostile regulation. In this case, unstable regulation has a crucial impact on entrepreneurs because it leads them to set market boundaries for their own practices, impeding them from growing. By contrast, entrepreneurs who adopt the opportunistic approach believe that they can relatively easily control new resources because they perceive uncertainty as an opportunity.

Second, this study focuses on the scarcely researched African regulatory context (Bruton et al., 2008) and highlights its influence on both perceptions and practices related to accessing resources. In doing so, it contributes to an understanding of the specific practices of African entrepreneurs that differ from those of their counterparts in developed countries (Hayton et al., 2002; Hofstede, 1993; Kistruck & Beamish, 2010; Madichie, Nkamnebe, & Idemobi, 2008). Most African contexts, and Burkina Faso in particular, are characterised by a dominant logic of life and business that consists of looking for harmony in the community because every individual is bound by collective moral rules (Kamdem, 2002; Kuada, 2010; Laurent, 2012; Ndione, 1992). To maintain this harmony, people are not supposed to accumulate profits without helping other members of the community by redistributing their profits or through reciprocity practices (e.g. donations, services) (Hillenkamp et al., 2013; Kamdem, 2002; Laurent, 2012; Ndione, 1992; Servet, 2007; Yaméogo & Wong, 2011).

This practice thus leads African entrepreneurs to maintain a sense of ‘blurriness’ (Laurent, 2012), which in turn explains why both submissive and opportunistic entrepreneurs accept uncertainty and how this leads to adaptation and, to a certain extent, success. In the present study, only the FP1 ‘oscillator’ entrepreneur tried to eliminate blurriness by applying mainstream management theories that did not seem suitable for the local context. Another aspect of the search for harmony is compliance with authority, which is particularly visible in the case of the submissive and oscillator entrepreneurs obeying the municipality.

I suggest that differences among entrepreneurial approaches may be due to the different ways of dealing with local and international, ‘Western’ norms that have become salient through development policies (Hofstede, 1993; Mitchell-Weaver & Manning, 1991). Submissive entrepreneurs largely adopt local values, oscillator entrepreneurs embrace Western management practices almost blindly, and opportunistic entrepreneurs feel free to embrace a more hybridised approach to business, blending international influence and local values (an approach that appears to be successful in the case studied). Therefore, the entrepreneurial context also seems to be enacted in cultural terms: rather than uniformly submitting to one cultural setting, entrepreneurs in Africa, similar to migrant entrepreneurs (Aliaga-Isla & Rialp, 2013), have the capacity to assemble building blocks from different cultural contexts in their ventures. The current work thus contributes to extending empirical studies outside Western countries but, also, beyond viewing ‘African’ or ‘developing country’ entrepreneurs as a homogeneous category. Rather, entrepreneurs located at the intersection of local and Western

values display different ways to combine these values and interpret their environment accordingly.

The study faces several limitations, each of which opens avenues for future research. Within the larger study from which this paper emerged, I selected four waste entrepreneurs on theoretical grounds. This enabled me to document three possible approaches to the ‘perception-practice’ pattern as regards accessing resources. On the basis of literature on African entrepreneurship (Fall, Favreau, & Larose, 2004; Hayton et al., 2002; Hillenkamp et al., 2013; Hofstede, 1980; Kamdem, 2002; Kuada, 2010; Laleye, Panhuys, Verhelst, & Zaoual, 1996; Laurent, 2012; Madichie et al., 2008; Nizet & Pichault, 2007; Vermeire & Bruton, 2016), I suggest that these three entrepreneurial approaches, albeit not exhaustive, may be applicable to African entrepreneurs. Future work could explore patterns other than the three highlighted here and further refine the understanding of resource-related perceptions and practices in various regions and sectors.

Overall, the link between culture and entrepreneurship could also be further explored so as to highlight the role of culture within the various perceptions and rationalities of entrepreneurs (Kamdem, 2002; Madichie et al., 2008). Building on the findings of this paper, future studies could examine how collective-based and reciprocity-oriented behaviour embedded in African culture intertwines with entrepreneurial values of Western inspiration in shaping entrepreneurial responses to uncertainty (Hillenkamp et al., 2013). Yet, I focused on a specific sector with a high degree of regulatory uncertainty. It would be interesting to compare case studies in sectors with diverging uncertainty levels and regulation patterns to determine how these factors influence the diversity of perceptions and practices.

I emphasised the major role played by perceptions of environmental uncertainty in entrepreneurial practices. This issue has received a great deal of attention in the management, psychology, and economics literature (Brouwer, 2002; Butler et al., 2010; Duncan, 1972; Jauch & Kraft, 1986; Lipshitz & Strauss, 1997; McMullen & Shepherd, 2006; Milliken, 1987). In addition, the results hint at the fact that perception may also be influenced by an entrepreneur’s strategy, but this did not seem to be central in the analysis. For example, FP3 stated that the success of her work (understood as a successful resources mobilisation approach) allowed her to be more confident (self-perception). In the same way, the failures of FP1’s strategies led him to perceive his environment as increasingly uncertain. Therefore, I argue for an interrelated ‘perceptions-practices’ pattern rather than a causal link between perceptions and

entrepreneurial practices. Additional research on entrepreneurs could examine how their perceptions develop and take shape in terms of mental processes (Butler et al., 2010; Krueger, 2003; Mitchell et al., 2007) and, conversely, how practices influence perceptions.

Moreover, although this was not the focus of the study, I noticed that the three entrepreneurial approaches seemed to lead to varying development levels: the opportunistic entrepreneur seemed very successful, submissive entrepreneurs enjoyed more stability, whereas the oscillator entrepreneur was fighting for his survival. Therefore, future research could examine in greater detail how different perceptions and resource mobilisation practices shape longer-term development trajectories.

Finally, it is worth emphasising the implications of the study for actors within the waste management sector. This is a critical sector for reaching sustainable development goals, especially those related to public health, environmental protection, and economic development (Wilson, 2015). As many other public services, waste management has been privatised in most African countries, the stated aim being to make them more efficient within the framework of structural adjustment policies (Post, 1999). In many instances, regulation of these new markets has proved highly unpredictable, forcing entrepreneurs to act in resource-uncertain environments. Since environmental uncertainty can have a critical impact on ventures, awareness that different approaches are possible may extend the range of options during their development. Public authorities in charge of waste management policy (typically, municipalities and local government) should take entrepreneurial difficulties into consideration and enact adequate policies based on a more participatory approach. Depending on their vision and the local situation, they might even tailor these policies to one specific type of entrepreneur. Local and international non-governmental organisations working in the waste management sector could also adjust their programmes in order to better understand the needs of waste entrepreneurs and the challenges they face.

4. Paper III: The Role of Time in Entrepreneurial Bricolage: Insights from Sustainable Venturing in Burkina Faso³

4.1. Introduction

Time, for entrepreneurs, is simultaneously a source of competitive advantage and a constraint bringing uncertainty and complexity. It has therefore been an important topic in the entrepreneurship literature for several years. Most of this work has focused on ‘developed’ countries and is, therefore, as is entrepreneurship theory more generally, anchored in a ‘Western’ view of time (Bird & West, 2011; Mosakowski & Earley, 2000; Reinecke & Ansari, 2015; Slawinski & Bansal, 2017). On the other hand, little is known about how different conceptions of time experienced in ‘developing’ countries are reflected in alternative, and diverse, entrepreneurial approaches. The aim of this paper is to better understand how entrepreneurs deal with conflicting temporal environments and how this affects their resource mobilisation practices and, ultimately, their development path. Therefore, I ask: *How does an entrepreneur’s temporal orientation shape resources construction in the challenging context of developing countries?*

Although scholars have drawn attention to the existence of alternative cultural conceptions of time, such as the Eastern ‘event time’ (Bluedorn, 2004; Chen & Miller, 2010; Reinecke & Ansari, 2015; Slawinski & Bansal, 2017), the Western conception, ‘clock time’, has remained hegemonic (Bird & West, 2011). Considering time to be a cultural resource, I draw on the concept of *bricolage* (1962) and the metaphysical aspect of time developed by Lévi-Strauss. Defining bricolage as ‘the process of making do with the resources at hand’, Lévi-Strauss described bricoleurs as having a finite repertoire of resources and a cyclical view of time (Lévi-Strauss, 1962; Duymedjian & Rüling, 2010). Baker and Nelson (2005) refined the concept of bricolage to apply it specifically to entrepreneurship, giving rise to a large stream of literature on ‘entrepreneurial bricolage’ (Desa & Basu, 2013; Di Domenico, Haugh, & Tracey, 2010; Fisher, 2012; Mair & Marti, 2009).

However, most of this literature deals with developed countries; in so doing, it tends to disregard the metaphysical dimension of the original concept of bricolage and, in particular, neglects its time component (Duymedjian & Rüling, 2010). Thus, more research is needed to more finely contextualise its findings in terms of patterns of resource valuation and

³ Paper co-authored with Frédéric Dufays and Benjamin Huybrechts and presented in the Babson College Entrepreneurship Research Conference 2018 (Waterford)

combinations (Senyard, Davidsson, & Steffens, 2010) and their relationship with venture development.

In this paper, I will focus on sustainable entrepreneurs, since they face an inherent tension related to time: they deal with the long-term perspective (Dufays, 2016) while responding to a discourse of urgency (Keijzers, 2002). Also, sustainable entrepreneurship has been shown to be subject to considerable resource constraints (Hockerts & Wustenhagen, 2010). I selected Burkina Faso as the entrepreneurial setting for the research because Africa remains under-researched despite the importance of bricolage patterns and the relevant questions that African entrepreneurship raise regarding the contextualisation of bricolage (Linna, 2013).

To answer the research question, I approached a number of entrepreneurs in the waste management sector. This sector is particularly interesting because it is rooted in local and cultural waste collection practices but faced vast changes during the Nineties under the impulse of the World Bank. I suggest that such an intervention led to ‘temporal conflict’ between local and international norms that entrepreneurs need to navigate when developing bricolage practices.

The findings make two theoretical contributions. First, by returning to a more ideal-typical conception of bricolage (Duymedjian & Rüling, 2010), I bring up a more comprehensive and systemic view of entrepreneurial bricolage. This is supported by studying this phenomenon when it faces contextual constraints that significantly differ from those of developed countries. I highlight the fact that the intangible repertoire of resources and metaphysics, in particular how time is conceived of by the entrepreneur, are important dimensions in the construction and mobilisation of resources. Second, I argue that the role of time in entrepreneurship is rooted in Western logic and metaphysics, where time is linear (Bird & West, 2011), in contrast to the setting where control of time is, in essence, hard to achieve because of a high level of uncertainty and a more cyclical view of time. This may explain why, unlike Baker & Nelson (2005), I observed entrepreneurs engaged in bricolage who did not perceive their environment as resource-poor but as full of opportunities.

This paper first briefly reviews the literature on time and entrepreneurship. The following section focuses on how the bricolage theory of Lévi-Strauss, through its metaphysical dimension, can bridge resource mobilisation practices and time perception. Then, I present the waste collection sector in Ouagadougou, Burkina Faso, and the research methods used to collect and analyse data. I proceed with the findings of this study, distinguishing between two different

approaches to resource mobilisation. Finally, I discuss these findings, highlighting the contributions of the paper and its limitations, and outlining promising paths for future research.

4.2. Theoretical background

4.2.1. Time and entrepreneurship

Time has enjoyed a growing interest in strategic management, organisation studies and entrepreneurship research (Ancona, Okhuysen, & Perlow, 2001; Bird & West, 2011; Mosakowski & Earley, 2000; Reinecke & Ansari, 2015; Slawinski & Bansal, 2017). A consensus seems to be emerging within the literature: time can be experienced in many ways by entrepreneurs; it shapes actors' views of the world and, consequently, their actions to mobilise resources in the present to secure the future (Bird & West, 2011; Hall, 1992; Orlikowski & Yates, 2002; Slawinski & Bansal, 2017). In the following section, I will review some of the numerous temporal dimensions described in the literature as critical to successful entrepreneurship (Bird & West, 2011). These temporal dimensions are often studied as trade-offs or tensions, assuming that entrepreneurs must choose between two opposite views, thus neglecting or missing out on the interrelatedness of these views (Slawinski & Bansal, 2017).

A first recurrent dimension lies in the opposing perceptions of time as either objective or subjective. For the former, 'time is independent of human experience' and 'can be observed by anyone' (Slawinski & Bansal, 2017). For the latter, time depends on individual perception and the way individuals interpret events (Hall, 1992; Mosakowski & Earley, 2000; Slawinski & Bansal, 2017). Mosakowski and Earley (2000) point at the relatively little-known subjective view of time and call for researchers to examine individual/social processes that affect temporal perceptions. Distancing itself from the objective-subjective distinction, the social constructionist perspective considers time to be a social structure; thus, it shapes and is shaped by human action (Orlikowski & Yates, 2002). It assumes that time is inherent to, and made real, through actions, i.e. the entrepreneur's behaviour in problem solving, decision making, scheduling, etc. (Bird & West, 2011; Orlikowski & Yates, 2002; Slawinski & Bansal, 2017).

The second dimension found in the literature deals with the temporal orientation of individuals, i.e. whether actors perceive time 'as a referent point in the past, present, or future' (Mosakowski & Earley, 2000). Present-oriented entrepreneurs search for immediate efficiency, past-oriented entrepreneurs are more risk-adverse and embedded in traditional behaviour, while future-oriented entrepreneurs favour anticipation in their strategic choices (Bird & West, 2011;

Mosakowski & Earley, 2000; Slawinski & Bansal, 2017). Although individuals tend to adopt a dominant temporal orientation, several authors have shown that some can deal with plural orientations, whereby they reconcile tensions between present and future, resulting in more successful ventures (Bird & West, 2011; Slawinski & Bansal, 2017).

A third dimension that seems relevant for the study is the trade-off between Western clock time and Eastern event time (Bluedorn, 2004; Chen & Miller, 2010; Hall, 1992; Kamdem, 1994; Reinecke & Ansari, 2015; Slawinski & Bansal, 2017). The way time is described and used varies in different parts of the world. In European and North American societies, time is determined and quantified by schedules. Time management is a source of stress because time is considered a scarce and marketable commodity. It must therefore be structured and measurable, and various instruments are used for forecasting purposes.

In traditional African societies, however, time is not measured by hours but by natural phenomena or events that punctuate everyday life (Hall, 1992; Kamdem, 1994, 2002; Reinecke & Ansari, 2015). Time is considered infinite. This explains why time is often a source of conflict between individuals from different cultures. Reinecke and Ansari (2015) have highlighted the role of time as a cultural resource and demonstrated that the hegemony of the clock-time orientation had eclipsed alternative conceptions of time found in other cultures (Bird & West, 2011). In their study of a fair-trade venture, which lies at the intersection of ‘temporally asymmetric worlds’ and needs to ‘negotiate conflicting temporalities’ (p. 619), they distinguished between the linear clock-oriented conception of time and a process-oriented conception of time. The former views time as a standard unit that is objectively, quantitatively measurable, whereas the latter considers time to be cyclical and endogenous to events.

To sum up, time can be experienced by individuals and translated into action in various ways. Given that several entrepreneurs may approach time differently, their behaviour is likely to differ throughout the entrepreneurial process. In the following sub-section, I will focus on the relationship between conception of time and resource mobilisation.

4.2.2. Time and resource mobilisation: the roots of bricolage theory and the importance of metaphysics

Since the dawn of time, human beings have observed the surrounding nature, developed knowledge on the basis of their observations, and made arrangements of different objects, or artefacts — that I will call ‘resources’ — to satisfy their needs. In his description of how human

beings interact with the world, Lévi-Strauss (1962) used analogies to describe in a holistic way two distinct approaches to resources based on two types of scientific knowledge. The first is the method used by *bricoleurs*, who take stock of their resources and recombine them unlimitedly to complete a project. From this point of view, an object or a resource is instrumental; it can be used several times in an infinite number of recombinations, outside any conception of time or within a more cyclical view of time. In contrast to this approach, *engineers* will seek optimisation and pursue projects of which the outcome will always depend on the objects that they are able to collect in advance to reach certain goals at a precise moment in time (linked to the period of history they are living in).

According to Duymedjian & Rüling (2010), three elements are essential to understand bricolage as an ideal-type: the stock of repertoire, dialogue and the outcome. The stock of repertoire is composed of all resources the bricoleur owns and/or has accumulated over time. These resources are not linked to a particular objective utility. The dialogue consists of assembling elements found in the bricoleurs' repertoire. During the entrepreneurial process, bricoleurs can search for needed resources in their repertoire and combine them as much as they wish to reach particular goals (Di Domenico et al., 2010). The outcome is defined by the nature of the results achieved by assembling resources.

Beyond this practical level, studying bricolage as an ideal-type also implies considering its epistemology and metaphysics (Duymedjian & Rüling, 2010). Epistemology outlines the way entrepreneurs develop and use particular knowledge, while metaphysics characterises their perception of the world and the valuation of their environment, thus determining how they give sense to objects, place and time (Duymedjian & Rüling, 2010). I contend that the metaphysical level is crucial in the study of entrepreneurial bricolage because it shapes the whole process of resource mobilisation beyond what much of the extant literature has considered so far. Duymedjian & Rüling (2010) suggested that the metaphysics of bricolage comprised four dimensions that could be studied to assess whether an entrepreneur behaves rather as a bricoleur or as an engineer. The first two dimensions concern how entrepreneurs value and structure the world. Bricoleurs will consider that everything in the world can be valuable and interconnected while engineers will break down and hierarchise objects according to their potential utility. The third dimension regards the boundaries of the entrepreneur's universe, which are considered closed by bricoleurs and open by engineers. The final dimension relates to time and temporal orientation. Bricoleurs adopt a cyclical vision of time, since resources in their repertoire can be

used for various purposes at any period of time, whereas engineers view time as more linear since they mobilise resources methodically for one particular purpose.

Over the last two decades, entrepreneurial bricolage has attracted much interest in the entrepreneurship scholarly community and has reached an advanced stage of theoretical development (Baker & Nelson, 2005; Desa & Basu, 2013; Di Domenico et al., 2010; Fisher, 2012; Janssen, Fayolle, & Wuillaume, 2018; Mair & Marti, 2009; Zahra, Gedajlovic, Neubaum, & Shulman, 2009). The notion of bricolage provides a way to understand how entrepreneurs manage, and even succeed to create something out of ‘objectively nothing’ in resource-constrained environments (Baker & Nelson, 2005).

Baker & Nelson (2005) defined bricolage as ‘making do by applying combinations of the resources at hand to new problems and opportunities’ (p. 333). They suggested two models of bricolage for firms in resource-constrained environments: ‘parallel’ bricolage relates to ventures that regularly and consciously apply bricolage in all their operations while ‘selective’ bricolage describes a careful and flexible use of bricolage, often abandoned once the venture is well established. Parallel bricolage is characterised by: the mobilisation of a diversity of unused, cheap, undervalued, or non-conventional physical inputs; the relative informal aspect of the entrepreneur’s labour skills (e.g. learning by doing); the lack of conformity with legal regulations or standards; and the complex nature of the entrepreneur’s social networks (customers, suppliers, friends,...). Other authors also distinguish between ‘necessity-based’ bricolage denoting situations where ventures engage into it because they cannot afford standard resources, and ‘ideational’ bricolage that results from ventures perceiving it as more advantageous (Desa & Basu, 2013; Mair & Marti, 2009).

The bricolage research field can be seen as deviating from a more established stream of literature that postulates that entrepreneurs will adopt an ‘optimisation’ behaviour (Desa & Basu, 2013). In the optimisation or causation approach, entrepreneurs mobilise conventional resources following a standard process. In other words, they know exactly what their objectives are, they plan their implementation and clearly identify the resources they need, such as highly qualified labour, standardised material, etc. (Desa & Basu, 2013; Sarasvathy, 2008). Conversely, entrepreneurial bricolage is based on the assumption that entrepreneurs refuse to be constrained by the resource limitations of their surroundings (Baker and Nelson, 2005). The resource environment is viewed as a social construct that is different for each entrepreneur, i.e. entrepreneurs have their own perception of the resources needed for their entrepreneurial

process (Baker & Nelson, 2005; Penrose, 1959). This explains why some entrepreneurs may apply different combinations of resources in a similar environment.

More recently, entrepreneurial bricolage has received increasing scholarly attention as regards specific types of entrepreneurship, such as social entrepreneurship (Desa & Basu, 2013; Di Domenico et al., 2010; Janssen et al., 2018; Mair & Marti, 2009; Zahra et al., 2009). Entrepreneurs who run a commercial activity with a social and/or environmental goal face resource constraints that may be greater than those faced by their conventional ‘for-profit’ counterparts, for example because of the limited or non-distribution constraint they impose on their profits, or because they address the needs of consumers who cannot afford the full price of a service (Austin, Stevenson, & Wei-Skillern, 2006; Desa & Basu, 2013; Di Domenico et al., 2010; Janssen et al., 2018; Mair & Marti, 2009). The difficult equation of how to be both profitable and focused on a social mission can be impacted by competition for resources with for-profit ventures; therefore, this emphasises the risk of mission drift (Becchetti & Huybrechts, 2008; Ebrahim, Battilana, & Mair, 2014).

Surprisingly, few studies have examined (social) entrepreneurial bricolage in developing countries (Linna, 2013; Mair & Marti, 2009) and, to the best of my knowledge, only one of them in Africa (Linna, 2013). Yet, evidence shows that entrepreneurs in developing countries face a more critical shortage of conventional resources than in developed countries, which might be expected to give rise to entrepreneurial bricolage behaviour (Desa & Basu, 2013; Janssen et al., 2018; Linna, 2013). In addition, I did not find any consensus in the literature as regards whether entrepreneurship theories are context-specific or not.

Taking stock of the theoretical richness of studying less conventional contexts (Kolk & Rivera-Santos, 2018), and noting that entrepreneurial bricolage has been shown to vary depending on the type of entrepreneurship and its purpose (e.g. creative entrepreneurship [(De Klerk, 2015)] or social entrepreneurship [Di Domenico et al., 2010]), I suggest that the theorisation of bricolage should be context-related. However, little attention has been paid so far to the features of the resource environment and to its cultural anchorage which, I contend, is likely to challenge existing definitions of entrepreneurial bricolage. To achieve such a context-related analysis of bricolage, I followed (Duymedjian & Rüling, 2010), who proposed studying bricolage as an ideal-type, thus reclaiming the original approach to bricolage introduced by Lévi-Strauss in anthropology in 1962.

Since I assume that resources are socially constructed (Penrose, 1959), I consider time to be a social construct shaped by entrepreneurs' metaphysics. In turn, since time is one of the fundamental systems in any culture and an organising principle of any activity (Hall, 1992), entrepreneurs' perceptions of time will depend on their cultural embeddedness. In line with the work of Lévi-Strauss (Duymedjian & Rüling, 2010; Lévi-Strauss, 1962), I suggest that the bricoleur vs engineer metaphysics is consistent with the framework by Reinecke & Ansari (2015) that hypothesises that bricoleurs will rather adopt a process-time orientation while engineers will follow a more linear-time orientation. In this paper, I will contend that entrepreneurs' conceptions of time and how they deal with temporal conflicts actually shape how they view resources and combine them.

4.3. Research approach & methods

4.3.1. Research context

The waste management sector in Burkina Faso, and more particularly its capital Ouagadougou, is a promising setting for understanding entrepreneurs' resource mobilisation processes and the potential conflicting temporal demands they face within their environments. In the Nineties, several entrepreneurs created a waste collection service that did not exist before. For some of them, it was also a way to respond to local unemployment problems by giving a job to extremely poor people, such as widows, who had no revenue-generating activity and lived in extreme poverty. Most entrepreneurs began from nothing, counting on their local social network to hire staff (mainly poor women), obtain loans, and buy basic equipment (donkey carts and, in some cases, old trucks or tractors from Europe).

At that time, Burkina Faso, like many other developing countries, had to align its public development policies with the standard norms imposed by the World Bank and the IMF, which were considered to be the best to reduce poverty and ensure growth. In order to fulfil World Bank requirements, the waste sector was regulated. In 2000, all existing waste collection ventures in Ouagadougou, regardless whether for-profit or not, had to meet these requirements in order to be included into a public-private partnership and continue to collect waste in the city. Concretely, they had to join 'Economic Interest Groups', pay new taxes, and collect waste within the boundaries of a new allocated area. Some of the ventures had to modify their equipment to be able to collect the waste in their new areas (e.g. replace old carts, buy motorised engines instead of donkey carts, etc.). Others had to reinforce their staff by quickly hiring new

people or, on the contrary, by firing or replacing people because their newly allocated collection area was smaller. All this did not happen without some difficulty because most entrepreneurs could not afford changes in the use of human, financial and material resources that were required without any help from the banks or municipality.

The area allocation during the selection process by the municipality led some entrepreneurs to lose their established waste collection zone and have to work in a new area; thus, they suddenly lost their customers and were forced to find new ones. In several areas, the poverty of customers and their perception of waste complicated the entrepreneurs' job and endangered their financial balance. Indeed, most households perceived waste as worthless, disposed of it by burning it on the street, and did not understand why they should have to pay for the collection service (Traoré, 2011). This situation was worsened by the municipality's inaction: it did not force households to subscribe to the waste collection venture in their area (the model imposes the polluter-pays principle), constantly delayed the new call for tenders, did not sanction non-official ventures or individuals collecting waste illegally, and so on. Under the circumstances, waste collection entrepreneurs deployed efforts to be or remain resourceful in order to survive and, if possible, grow. The overall growth promised by structural programmes was not achieved; nevertheless, some entrepreneurs succeeded in this extremely uncertain legal environment, worsened by the country's political crisis in 2014, which placed the waste sector in a 'standby' situation.

The waste management sector is emblematic for two reasons. First, it mobilises a great variety of resources (e.g. human resources; motorised or mechanical equipment; and locally made, cheap, unused resources), which are used in various combinations by entrepreneurs according to their own interpretation of the environment (Penrose, 1959). Second, policies imposed by the World Bank introduced a duality of cultural norms in the waste management sector, i.e. traditional African norms on the one hand, and the 'Western' norms of international institutions on the other hand. Following Reinecke and Ansari (2015), I suggest that such a duality created conflicting temporal demands in the waste management sector; this had considerable implications in terms of resource mobilisation and, ultimately, performance. Hence, I examined how entrepreneurs mobilised resources by navigating between their own perception of time and the temporal orientation of their cultural and legal environment.

4.3.2. Data collection

The empirical material is drawn from a large study of the waste management sector in Ouagadougou. In this complex setting, the research protocol was particularly demanding. At

the beginning of the process, in 2014, I interviewed various actors to gain a better understanding of the sector: staff in charge of waste management at the municipality, the local project manager of the EU waste management programme, and local scholars with expertise in this domain.

The first round of data analysis directed my attention to the variety of resource mobilisation strategies among the entrepreneurs that led them to succeed, survive or fail although, objectively, they operated in the same resource environment. Therefore, in 2015, I conducted a second round of interviews with seven entrepreneurs leading the Economic Interest Groups (already interviewed in 2014) because they represented all the entrepreneurs of the sector and because they had collected waste since the activity started. The data collection was conducted shortly after the political crisis and gave me an opportunity to collect new data on how entrepreneurs managed their resources in order to operate in this new, unstable environment. Finally, I selected six entrepreneurs, putting aside one entrepreneur who was very similar to other, not-for-profit entrepreneurs, which led me too quickly to theoretical saturation (Glaser & Strauss, 1967). The six focal entrepreneurs had one thing in common: they created their ventures during the first half of the Nineties but then purposefully diversified in terms of areas covered and organisational forms (see Table 4-1). To preserve the anonymity of the informants, the names of the entrepreneurs and their ventures have been replaced by a number.

Table 4-1. Case studies' profiles

	NFP1	NFP3	FP1	FP2	FP3	FP4
Form	Not-for-profit	Not-for-profit	For-profit	For-profit (former cooperative)	For-profit (former not-for-profit)	For-profit (former not-for-profit)
Year of venture creation	1995	1999	1993	1990	1996	1992
# of employees	17	20	17	23	40	110
# of clients	400	1,200	3,500	3000	4,000	2500
Collection area	Central & rich	Peripheral & middle income	Central & rich/middle income	Central	Peripheral & low income	Central
Collection means	Motorised engines and donkey carts	Donkey carts	Motorised engines	Motorised engines and donkey carts	Donkey carts	Motorised engines and donkey carts

Note: NFP = not-for-profit, FP = for-profit.

I also collected 44 official documents, project reports, internal documents of waste collection ventures, legal documents relevant for the sector, pictures, etc. (2000 pages in total). I then contacted all the waste management entrepreneurs and was able to interview 15 of them. Finally, I spent several days with entrepreneurs, then collecting other data through observation and notes, during approximately 44 hours of fieldwork. It was particularly interesting to observe how time was apprehended in the practices of entrepreneurs, e.g. how he or she perceived and managed problems on a daily basis. All interviews were recorded, transcribed and added to the data pool together with the documents and observation notes. The document analysis enabled me to triangulate the data sources, that is to better understand the research setting by comparing the views of entrepreneurs with those of other actors (policy-makers, development officers, etc.). That increased the overall validity of the data (Gibbert & Ruigrok, 2010; Yin, 2003).

4.3.3. Data coding and analysis

Six case studies dealing with waste collection ventures in Ouagadougou were compared to allow for theoretical development (Yin 2009). Although data collection covered the ventures as a whole, I focused on the entrepreneurs as the main unit of analysis in order to understand resource mobilisation processes in relation to individual temporal perceptions. The data analysis followed the principles of systematic combining, which is ‘a process where theoretical framework, empirical fieldwork, and case analysis evolve simultaneously’ (Dubois & Gadde, 2002). Because the aim was to grasp the variety of individual constructions and their relationships with the context, I followed the methodological approach adopted by Welter, Xheneti, & Smallbone (2018), that is, coding data using a dominant inductive approach and cross-case analysis.

The interaction between a phenomenon and its context is best understood through in-depth case studies, especially when the researcher must go back and forth from one type of research activity to another, with permanent confrontation between empirical observations and theory (Dubois & Gadde, 2002; Eisenhardt, 1989). The analysis was conducted in four stages with the help of the software NVivo. First, interview transcripts were coded by highlighting excerpts in which entrepreneurs described what they regarded as resources and how (in terms of bricolage) they combined them through their actions; this allowed me to grasp their repertoire and dialogue as defined by Lévi-Strauss. Respondents provided a great deal of information regarding the types of resource they use, ranging from the types of worker they employ, the equipment and material (motorised engines, donkey carts, ...), financial means, the customer approach (price,

relationships) to intangible resources such as experience, skills or knowledge, network, and religious beliefs. I found it difficult to distinguish between dialogue and outcome — considered ambivalent by Duymedjian & Rüling (2010) and Lévi-Strauss (1962) himself — and decided to group the two dimensions together.

I then conducted a second round of coding, this time in terms of metaphysics, i.e. entrepreneurs’ appreciation of the world, their environment and their resources, with a specific focus on time perception. The relationship between bricolage and time is particularly interesting because time allows bricoleurs to go back and forth within their repertoire of resources, developing a particular valuation of resources ‘at hand’ (Duymedjian & Rüling, 2010). Consequently, I further coded the data in terms of how entrepreneurs made sense of time by looking at their temporal orientation. I specifically looked at how they identified future opportunities and perceived problems, their views of short-term vs. long-term, their relationships to present-past-future (e.g. transmission), and their intentions and hopes for the future (Bird & West, 2011; Mosakowski & Earley, 2000; Reinecke & Ansari, 2015; Slawinski & Bansal, 2017). At the final stage, I was able to identify patterns of dealing with temporality and resource mobilisation approaches.

While coding the data, I constantly proceeded with a cross-case comparison in various iterative steps, allowing me to avoid misinterpretation, go beyond first impressions, and pay attention to counter-evidence. All the relevant quotes were read and re-read several times, translated into English, and their interpretation was double-checked by co-authors to ensure internal and external validity (Gibbert & Ruigrok, 2010).

Table 4-2. Coding scheme

Step 1: Repertoire of resources, dialogue/outcome	
Code	Sample quote
Workers (motivation, planning, structure)	‘There are lots of problems because lots of people [employees] get up in the morning without coming to work and without informing us. If you are not well, you can call and inform of your absence. [...] If I was spiteful, I could cut their salaries. But I don’t. [...] I think they lack motivation. People only come to take the money. They don’t perceive the service they provide [to the population].’ (NFP1)
Equipment	‘We avoid using big motorised engines for the moment because we don’t know when the new call for tenders will be launched. But it is our priority. For households, we can always adapt. [...] Adjustments are always possible. If oil costs a lot, I can go back to donkey carts. Or use motorised tricycles...’ (FP1)

Financial resources	'I have other activities and the bank lends me money because I have contracts. When we have clear contracts, we have no problem to obtain loans. But in the waste [sector], it is complicated.' (FP3)
Customers (price, waste management behaviour)	'Donkey carts are for not-for-profits. If people want to pay only 500 FCFA a week for the collection of waste, they must wait for a not-for-profit [waste collector] because I refuse to collect the waste with trucks for 500 FCFA! Even at 1000 FCFA I am irritated!' (FP1)
Intangible resources (knowledge, skills, recognition, experience, religious beliefs, network...)	'There is a factor that cannot be neglected, it is the fact of being cultivated. Because you have a vision, you think about how to achieve your goals. It is true that illiterate people also succeed but I think that I succeed because I participated in forums, I travelled a lot, it makes me open-minded. [...] My interest is also to help marginalised people, so I want to learn from them, live their situation, learn entrepreneurship also, try to learn lots of things as organic composting with waste, how it works, so learn learn!' (FP3)
Step 2: Entrepreneurs' metaphysics and temporal orientation	
Code	Sample quote
Appreciation of environment	'We had excessive ambition, we had to fire people, leave our office. [...] Under these conditions, I prefer to run my business with the minimum; it is a matter of survival! Because I shouldn't be so naïve, but it is the environment that has not played in our favour, but you know, when you learned too much theory, it is not as good for the enterprise here in Africa. You will see that the domestic economy in Burkina Faso and its actors, it is maybe related to our development level, but you will see that the main actors are not those with beautiful theories, who pay attention to details and principles, no.' (FP1)
Perception of problems and opportunities	'As we worked with young boys, they progressively grew up and lost interest in the waste collection activity. They had other visions, so they found other jobs. Then, we saw that we could reach other beneficiaries, for example marginalised women, the widows.' (FP4)
Time frame, periodicity	'If you have an optimistic long-term vision, it is better to be a firm, because our ambition is to climb up the ladder. But at the bottom of the ladder, in terms of bricoleur, it is more suited to not-for-profits' (FP1)
Relation to past-present-future	'Those who are about 60 years old have to retire and say that they prefer to give their child to replace them. It is their retirement. Many of them have brought their child before leaving us for their retirement.' (FP4)
Speed, celerity	'We have always been in a financial emergency, but I have always thought that it was temporary, that we must endure until the new call for tenders and that it will install us in a professionalisation stage. So we had to anticipate a certain number of things. I was convinced that we will reach what we had forecast and come out on the other side of the cycle of cash flow problems because we had time to manage the problems. But I was flabbergasted! Waiting too much is too long for a businessman who wants to survive' (FP1)
Hopes and intentions	'Our hope is first to do a good job, in order to make people happy. And one day maybe, to work as a firm. We think that if we had the means... because we are asked to do things that we cannot because we are limited, but I think that if God gives us a long life, and we manage to create a big firm...' (NFPI)

Step 3: Patterns of dealing with temporality and types of resource mobilisation

3a Patterns of dealing with temporality

Dealing with temporality	Cyclical approach	Linear approach	Mixed approach
Metaphysics and temporal orientation codes (Step 2)			
Appreciation of environment	Periodicity, habits	Cause-and-effect thinking	Independent, flexible
Time frame, periodicity	Short-term, daily	Long-term, major (expected) events in the environment	Evolving in synchronisation with the environment
Relation to past-present-future	Past dictates present and future	Future dictates present	Past and future dictate present
Speed, celerity	Slow	Fast, urgency	Evolving at the same speed as the environment
Hopes and intentions	Limited hopes, no ambition	Full of hopes, high ambition	Limited hopes but high ambition

3b Types of resource mobilisation

Patterns of resource mobilisation	Imposed bricolage	Deliberate bricolage
Repertoire of resources		
Workers	Focus on specific resources to conform to own ideal; perception of the resource environment as a constraint due to the duality of norms; use of alternative resources constrained by the failure of preferred resources	Combination of multiple resources (traditional and modern/conventional); perception of the potential of the resource environment; use of resources purposefully adapted to environmental constraints
Equipment		
Financial resources		
Customers		
Intangible resources		
<i>Perception of problems and opportunities</i>	<i>Problem-oriented</i>	<i>Opportunity-oriented</i>
<i>Dealing with temporality</i>	<i>Linear, cyclical</i>	<i>Mixed</i>

4.4. Findings

The findings reveal strong differences among entrepreneurs' perceptions of temporality, resulting in diverse resource mobilisation practices. Following the ideal-type approach, the results exhibit three patterns of dealing with temporality — cyclical, linear, and mixed — and two types of resource mobilisation process: imposed and deliberate bricolage.

4.4.1. Patterns of dealing with temporality

Temporality emerged in the study as an important metaphysical dimension shaping the resource mobilisation process used by each entrepreneur. Given that waste sector management combines international and traditional local norms, entrepreneurs face conflicting temporal demands and have to navigate between their specific temporality pattern and the temporal orientation of their cultural and legal environment.

4.4.1.1. Cyclical view of time

Entrepreneurs NFP1 and NFP3 seemed to perceive time as a continual flow linked to their experience. The most important thing for them was to continue working through time and not to achieve a particular performance outcome at any specific point in time. Entrepreneur NFP3 explained:

‘The only thing we want is to be able to pay the salaries. We do what we can with what we have. So, even if we are not selected in the call for tenders, we will become informal, it is the only thing we can do.’

As bricoleurs, they viewed time as circular, followed a day-to-day rhythm, and used the resources at hand without taking risks as long as the environment did not change. The past dictated their present and future. Although they did have some hope for the future, for example related to the sector’s professionalisation, they felt constrained and powerless to control future events.

‘Our hope is first to do a good job, in order to make people happy. And one day maybe, to work as a firm. We think that if we had the means... because we are asked to do things that we cannot because we are limited, but I think that if God gives us a long life, we could manage to create a big firm...’ (NFP1)

4.4.1.2. Linear view of time

Entrepreneurs 3 and 4 adopted a clock-time orientation to face the constraints imposed by their environment. They acted as engineers, anticipating positive future events in their environment and adopting a linear temporal orientation for the future as they planned their strategies in advance. The future dictated their present. Entrepreneur FP1 expressed this clearly:

‘If you have an optimistic long-term vision, it is better to be a [for-profit] firm, because our ambition is to climb up the ladder. But at the bottom of the ladder, in terms of bricoleur, it is more suited for not-for-profits’.

Moreover, they constantly scrutinised positive signals from the environment to mobilise new resources:

‘We have always been in a financial emergency, but I have always thought that it was temporary, that we must endure until the new call for tenders and that it will install us in a professionalisation stage. So we had to anticipate a certain number of things. I was convinced that we would reach what we had forecast and come out on the other side of the cycle of cash flow problems because we had time to manage the problems. But I was flabbergasted! But waiting too much is too long for a businessman who wants to survive.... One must change the system, or one must die.’ (FP1)

4.4.1.3. Mixed view of time

As for entrepreneurs FP3 and FP4, they seemed to have a mixed approach to time. They first adopted a cyclical view of time: past experience allowed them to get used to change, to be flexible, and to be particularly successful within their surroundings. No matter what tomorrow looked like in this extremely uncertain environment, they would find a way out thanks to the past:

‘We are lucky because we have experience in the call for tenders, it is a plus. We are used to change. Today you can be in this field, tomorrow in another.’ (FP3)

As a result, learning from the environment was particularly important for entrepreneur FP3 in order to survive in the present and envision the future:

‘There is a factor that cannot be neglected, it is the fact to be cultivated, it has an impact. Because you have a vision, you think how to achieve your goals. It is true that illiterate people also succeed but I think that I succeed because I participated in forums, I travelled a lot, it makes me open-minded to succeed.... My interest is also to help marginalised people, so I want to learn from them, live their situation, learn entrepreneurship also, try to learn lots of things as organic compost with waste, how it works, so learn learn learn!’

The two entrepreneurs acted in the present and with the resources at hand in order to bring about change. Nevertheless, they also had a vision of the future and worked on it. For example, entrepreneur FP3 tried to improve the sorting of waste in schools:

‘I approach several schools to get them to teach waste management, from the elementary school on. And the streets are full of waste, people throw everything, so I raise awareness among households because people call “waste” all they do not need anymore. They put everything in their bin and we have to collect all these things in our carts! Even electronic waste so I want to incorporate this in a future treatment channel of waste.’

Entrepreneurs FP3 and FP4 played with the different types of temporality in their environment. For entrepreneur FP3, company growth and gaining recognition were important success factors. Entrepreneur FP4 did not hesitate to transform into a for-profit firm to follow the professionalisation trend in his environment. Nevertheless, he kept all his employees, even if this was not the most profitable option, and employed the children of his employees when the latter retired. This behaviour is typically anchored in the local culture, where transmission from father to son across time is important, thus implying a circular temporality. He followed the traditional system in Africa, where children take care of their parents once they retire. This is especially the case if they have an informal job and are not entitled to a retirement allowance, which is often the case in the waste management sector:

‘Those who are about 60 years old have to retire and propose their child to replace them. It is their retirement. Many of them have brought their child to us before leaving us for their retirement.’ (FP4)

To sum up, the six entrepreneurs displayed a variety of approaches to time: cyclical, linear and mixed. These views of time were embedded in the ways in which they valued resources and guided their actions both in the present and future. Thus, the next section will examine how these three patterns of dealing with temporality can be related to different resource mobilisation processes.

4.4.2. Resource mobilisation processes

The entrepreneurs’ repertoire of resources was captured by studying their perceptions of equipment, workers and intangible resources, such as experience, reputation, network and religious beliefs. All entrepreneurs employed low-skilled men and women, often widows, and used equipment available in their surroundings. As already mentioned, some of them used

donkeys, with carts made by local foundries, while others had bought old tractors or trucks shipped out of Europe because there, they are regarded as waste. Still others used locally crafted motorised engines, such as motorised tricycles that are a combination of a motorcycle and a cart. The way entrepreneurs individually valued resources varied, demonstrating the important role of metaphysics. I suggest that all entrepreneurs applied a certain form of bricolage to their process of resource mobilisation. However, the underlying rationale of such bricolage varied, leading me to distinguish between ‘imposed bricolage’ and ‘deliberate bricolage’.

4.4.2.1. Imposed bricolage

The findings reveal that entrepreneurs NFP1 and NFP3 embraced many features of the bricolage approach.

They used the resources ‘at hand’ because they possessed a lot of knowledge about these and, also, believed that they could not afford more standardised and conventional resources, i.e. those that are considered efficient and are encouraged by international institutions operating in the country, such as motorised engines, trained staff and relatively substantial financial means. Their repertoire seemed to be finite: all their actual resources were already part of their repertoire before the intervention of international institutions in the organisation of the sector. They took their resource environment for granted, believing that new regulations imposed by international institutions would remain out of their reach. Consequently, they felt compelled to use bricolage:

‘We lack means. If we had [financial] means, we wouldn’t use donkey carts, we would be more efficient with motorised tricycles.’ (NFP3)

‘We think that the city needs motorised engines to work better. Donkeys are too slow, it takes too much time to work.’ (NFP1)

Lacking a good understanding of how their resource environment had changed, entrepreneurs NFP1 and NFP3 reported that when they tried to change something by using conventional resources, they often regretted it because the outcome made them worse off. Entrepreneur NFP3 recounted a recent experience:

‘Now, after a long period of consideration, I paid for a motorised tricycle to go faster with the collection. But because the transit centres are not emptied by the municipality and are inadequate for tricycles (too high for the tray), we must go far to throw the waste away. So it slows down the work and it costs a lot in fuel. So it causes a lot of problems,

and under this condition, I prefer to go back to donkeys, it is cheaper to feed the donkeys [...] [and] to pay salaries to the women, it is the most important thing.’

Entrepreneurs NFP1 and NFP3 were driven by their mission, i.e. to provide a revenue to marginalised women, thus mission and human resources were interconnected. The dialogue with their repertoire of resources served to accomplish their mission. Therefore, their priority was to assemble their resources to resolve problems whenever possible. They tried to foster solidarity practices among the women and entrepreneurs operating in the sector. When a problem was not considered to be manageable, they gave up, and just continued to do what they could with whatever resources they had. Consequently, they felt constrained, unable to develop and had to apply bricolage because it was the only thing they knew — not as a deliberate choice.

Entrepreneurs FP1 and FP2 preferred standardised resources, typically linked to the engineer’s metaphysics of Lévi-Strauss (1962), and a conventional view of resources. They adopted an approach closer to optimisation, but also felt compelled to adopt a bricolage approach when they faced economic problems in acquiring resources. Entrepreneur FP1 highlighted this optimisation approach in his discourse but also in the words he used. First, he considered knowledge an important intangible resource, as an engineer would, emphasising for example how university degrees, in particular those earned in a developed country, are a sign of good management. Hence, it is not surprising that his human resource management practices mirrored the prescriptions learnt during his studies. Nevertheless, he explained that he had not found the right formula yet. He employed independent recovery agents, paid according to their number of customers and recovery rate, but noticed that this was not efficient:

‘For us, it meant that they would work to have more customers and maintain their level of customers by dealing with the customers’ complaints, but we realised that it is theory. I understood that our system did not motivate them... I think they have other [income-earning] activities.’

Following conventional management prescriptions to run the venture was part of the optimisation strategy, but proved inefficient, as entrepreneur FP1 put it:

‘We had excessive ambition, we had to fire people, leave our office.... Under these conditions, I prefer to run my business with the minimum; it is a matter of survival! Because I shouldn’t be so naïve, but it is the environment that has not played in our favour, but you know, when you learned too much theory, it is not as good for the enterprise here in Africa. You will see that the domestic economy in Burkina Faso and

its actors, it is maybe related to our development level, but you will see that the main actors are not those with beautiful theories, who pay attention to details and principles, no.’

Similarly, entrepreneur FP2 tried to optimise resources with limited success. At the time of venture creation, there were 13 employees. After 25 years, he was ‘the only survivor’, as he put it, because according to him all the other workers left after having stolen some money, preventing the venture from growing. As regards resources, he normally used trucks, but they had broken down, and he had to use donkey carts to continue collecting waste. He was waiting for the call for tenders to repair his trucks. Meanwhile, he combined resources at hand to survive:

‘We avoid using big motorised engines for the moment because we don’t know when the new call for tenders will be launched. But it is our priority. For households, we can always adapt. A donkey cart or even a wheelbarrow car does the job. Adjustments are always possible. If oil costs a lot, I can come back to donkey carts. Or use motorised tricycles....’

In brief, entrepreneurs FP1 and FP2 attached importance to conventionally valued resources in order to increase their performance. Nevertheless, ultimately, they were forced to use bricolage to keep their activity running.

4.4.2.2. Deliberate bricolage

Two entrepreneurs seemed to combine various resource mobilisation processes, mixing the bricoleur and engineer approaches. Regarding tangible resources, entrepreneurs FP3 and FP4 used resources at hand, but in a purposeful way, and were able to serenely switch to other resources when necessary. They seized all the opportunities that they saw emerging from their environment and from unexpected events. For instance, unlike entrepreneur FP1, entrepreneur FP3 deliberately preferred using donkey carts because she thought it was more efficient to do the job. Entrepreneur FP4 had gradually moved from donkey carts to trucks but kept all his initial staff and some donkey carts to keep in line with their mission — providing work to disadvantaged people — thus mixing conventional with non-conventional resources:

‘We tried a [pick-up car], with always the donkey carts, then we reduced the donkey carts and paid more [pick-up cars]. Then, we bought a small truck and after a packer truck [...]. We still have about ten donkey carts, because we haven’t forgotten where

we come from, it is symbolic, so we have donkey carts running next to the trucks. You know, today, when you have donkey carts, you are obliged to have many people to do the job, while with a packer truck, you don't need many people. But we didn't want to fire our people, so we keep people and the spirit of helping people. If we wanted to make money, we would fire many people.'

Entrepreneurs FP3 and FP4 continuously engaged in a dialogue with their repertoire of resources. When they faced a problem or an opportunity, they explored their repertoire to find the right answer in accordance with the bricolage approach. For instance, entrepreneur FP4 used the bank loans she obtained for her other activities in order to finance the equipment needed in the waste management sector because she could not borrow from the bank for her waste-collection operation:

'Hum, I have other activities and the bank lends me money because I have contracts. When we have clear contracts, we have no problem to obtain loans. But with the waste, it is complicated [to get a loan].'

In the same vein, entrepreneur FP4 began to employ marginalised women because the young people he employed at the beginning of the activity as a not-for-profit dedicated to youth found other jobs:

'As then we worked with young boys, they progressively grew up and lost interest in the waste collection activity. They had other visions, so they found other jobs. Then, we saw that we could reach other beneficiaries, for example marginalised women, the widows.'

However, even if all entrepreneurs organised and trained their employees, entrepreneurs FP3 and FP4 went further in using conventional knowledge according to the standards of developed countries to sustain their performance at work. To enhance staff motivation, they structured their venture in such a way that responsibilities were given to leaders and they were offered financial incentives: salary increases, declared employment (to be entitled to retirement allowance), paid commission for the rate of recovery of households' payments, and free motorcycles for employees, as explained by entrepreneur FP4:

'With all these financial aspects, they [women employed] go hard at work, they will not fool around with their job to lose it. People often play with people motivation!'

Entrepreneurs FP3 and FP4 knew their environment very well and did not hesitate to use conventional management techniques to grow. Entrepreneur FP3 reduced her prices to fight

informal competition and entrepreneur FP4 changed the legal status of his venture from not-for-profit to for-profit in order to be able to collect more waste and to grow. He wanted to become independent and stop asking for financial or material help:

‘You see, the population of Ouagadougou increases. And they produce more waste... At one moment, we needed to move things up a gear to earn our living. We have seen that a not-for-profit venture cannot do business. But as a for-profit venture, we can justify some things. Being a not-for-profit, households paid 500 FCFA by month for the waste collection. But with social activities, to help women, we cannot go further. And with the donkeys, it takes too much time to do the job and donkeys are tired. We have to evolve. And to evolve, we wanted to increase the households’ payment from 500 to 1000 FCFA by month. We wanted to justify this increase and as we become a for-profit venture, we have taxes to pay, so households understand the increase.’

Nevertheless, he retained bricolage techniques because of his social mission, as he explained:

‘The not-for-profit spirit is still there, remains in us. Because we cannot get rid of it, no no. We are a firm, but we help, the social aspect means a lot for us, we make it a priority.’

In summary, entrepreneurs FP3 and FP4 used the stock of their resources at hand because they found them useful to achieve their goals. These entrepreneurs regarded their past experience, reputation, and family expertise as powerful resources. Therefore, they engaged in dialogue with their large repertoire when facing any event or to seize any opportunities they perceived in their environment. Nevertheless, they also applied optimisation techniques to align themselves with the demands of their environment, trying to professionalise their activities according to the prescriptions of the World Bank translated into the legal framework for waste management in Burkina Faso. These two entrepreneurs had a fine-grained view of their environment, which allowed them to respond to both traditional and international demands, switching back and forth between bricoleur and engineer approaches, and successfully dealing with temporal conflicts. Hence, the results suggest that they did not view their environment as hostile or resource-scarce but, rather, that they perceived everything as an opportunity.

4.5. Discussion

By comparing six case studies of sustainable entrepreneurship in the waste management sector in Burkina Faso, I aimed to understand the role of time in shaping the mobilisation of entrepreneurial resources in the challenging context of a developing country. Figure 4-1 draws

on the findings to propose a model connecting the entrepreneurs' metaphysics (i.e. how they view and understand their resource environment), in particular their temporal orientation, to their resource mobilisation process and resulting development levels.

I suggest that entrepreneurs who approach time in a cyclical way behave like bricoleurs as defined by Lévi-Strauss (1962) whereas those who demonstrate a more linear approach resemble engineers. Such approaches, however, are not mutually exclusive: entrepreneurs may use a mixed approach when dealing with temporality, playing with cyclical and linear views of time as they respond to the dual — traditional and international — demands typically found in developing countries. I suggest that, in these countries, all entrepreneurs, even so-called engineers, are likely to use bricolage techniques to a certain extent in their resource mobilisation process, although the underlying rationale is likely to vary.

Bricolage is imposed on entrepreneurs whenever they feel under the pressure of constraints in their environment and are problem-oriented in their resource mobilisation process. Conversely, bricolage is deliberate when mobilising resources through bricolage is a choice guided by the perception that the environment is full of opportunities. Deliberate bricoleurs are likely to align their temporal approach with the complex environment, resulting in a better performance than entrepreneurs employing imposed bricolage, who tend to maintain the status quo, attempting either to survive or to stabilise their venture.

I suggest that the findings and model contribute to the strands of literature on entrepreneurial bricolage and on the role of time in entrepreneurship. I propose a more comprehensive and contextualised view of entrepreneurial bricolage by returning to a more ideal-typical conception (Duymedjian & Rüling, 2010), as originally defined by Lévi-Strauss, and by connecting it to contextualising elements. Studying entrepreneurial bricolage in the face of sets of constraints that are different from those found in developing countries offers the opportunity to emphasise that entrepreneurs' metaphysics, in particular temporal orientation, are an important dimension in the construction and mobilisation of resources. Most entrepreneurs support the combination of bricolage and optimisation, for example in their mobilisation of material resources and workers (Baker & Nelson, 2005; Desa & Basu, 2013).

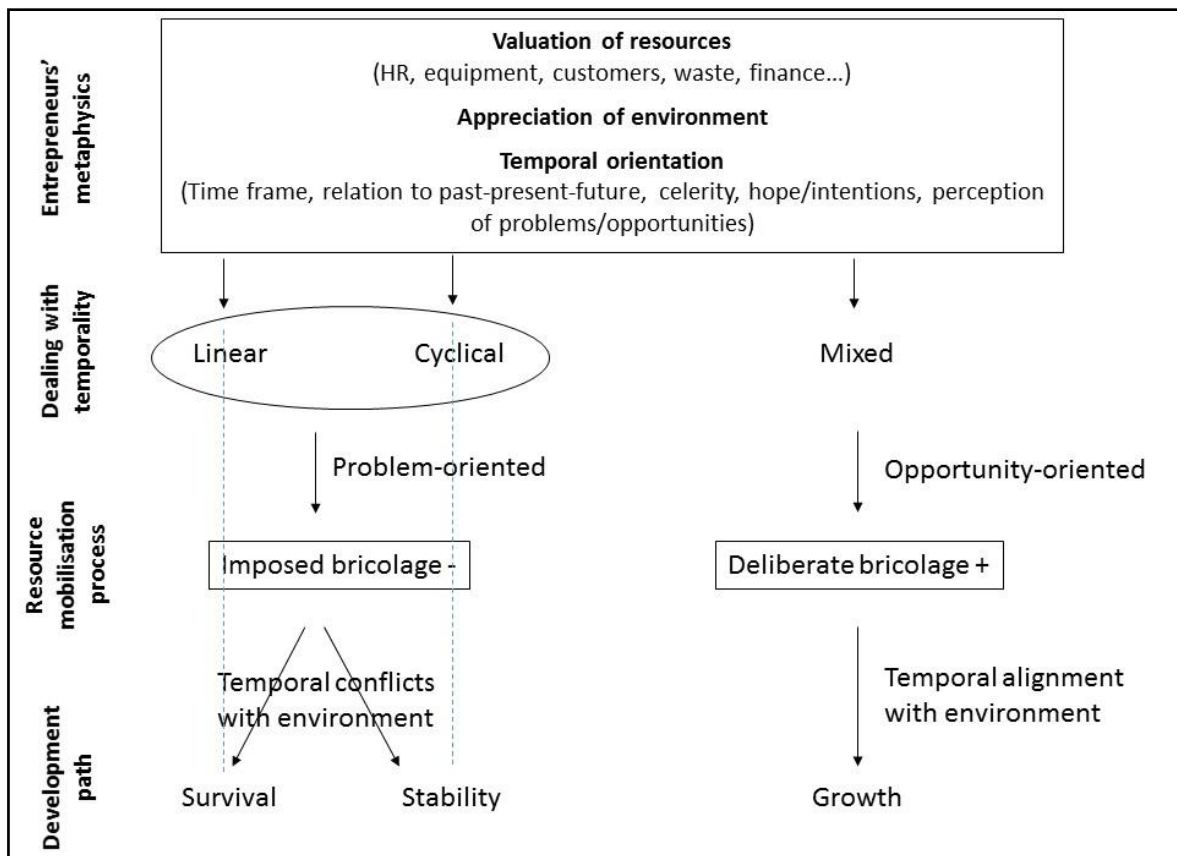


Figure 4-1. Conceptual model

Nevertheless, the way in which bricolage is put into practice differs from one entrepreneur to another. Those who can neither comply with international prescriptions nor afford standard resources (such as motorised equipment) view bricolage as an imposition that is needed for organisational survival, which is close to the definition of ‘necessity-based’ bricolage of (Desa & Basu, 2013). Imposed bricolage is also likely to be observed, albeit in a different way, as regards entrepreneurs acting as the engineer type of Lévi-Strauss (1962). These entrepreneurs use optimisation techniques which, in the case of developing countries, are likely to be inspired by a standardised vision of resource management coming from developed countries, often passed on by international institutions.

By contrast, deliberate bricoleurs in developing countries use bricolage because they perceive it as more advantageous. It enables them to bypass constraints in their environment or to transform them into opportunities (Fisher, 2012). The concept of bricolage here is closer to the most institutionalised concept of ‘ideational’ bricolage proposed by Lévi-Strauss because it is a positive choice rather than a necessity (Desa & Basu, 2013; Di Domenico et al., 2010; Mair & Marti, 2009). In parallel, as their company gradually grows, this type of entrepreneur optimises resources, combining bricolage with conventional management theories. They train

their human resources, give them rewards, or begin to think about motorised equipment, but only if they perceive it to be more adequate and efficient for their work.

In an extremely penurious and uncertain environment, I suggest that entrepreneurs who align their resource mobilisation practices with the complexity of their environment are most likely to succeed. Given that the waste management sector is regulated by international norms inspired by developed countries, but is also embedded in a long-standing African traditional culture, the most successful entrepreneurs are not those who adopt purely ‘developed’ management practices but, rather, those who blend bricolage and optimisation techniques at all levels of the entrepreneurial process.

Moreover, this study complements the widely adopted Baker and Nelson definition of entrepreneurial bricolage (2005) by adding elements of contextualisation. I argue that the Baker and Nelson (2005) definition is too restrictive and that original insights of Lévi-Strauss with regard to metaphysics need to be brought back, in particular temporal orientation, to allow for a more generalised application. In other words, Baker and Nelson’s conception of bricolage is rooted in a ‘Western’ logic and metaphysics where time is linear (Bird & West, 2011), in contrast to the setting where the issue of time control is, in essence, hard to achieve (uncertainty, local cyclical view of time, etc.). Hence, I suggest that entrepreneurial bricolage must be balanced with contextual anchorage, which is expressed through the metaphysics of entrepreneurs and the temporality of their environment.

The findings show that all entrepreneurs under scrutiny used bricolage to some extent, in the sense of ‘*making do*’ employed by Lévi-Strauss. Most of them used *unwanted or expired materials*, like Baker and Nelson’s (2005) bricoleurs. However, I may need to question which resources may be regarded as ‘conventional’ or ‘standardised’ in the African context, where using second-hand resources is often considered standard. Contrary to Baker and Nelson (2005), the study reveals that entrepreneurs do use bricolage but do not consciously defy their resource-poor environment by trying to find solutions to resource constraints, a typical entrepreneurial bricolage behaviour that these authors coined ‘*refusal to enact the limitations of their environment*’ (p. 334). Some entrepreneurs unconsciously feel forced to use bricolage because of resource constraints, whereas others do not consider that their environment suffers from limitations because they have an intimate knowledge of it, perceiving all potential arrangements of resources to respond to an opportunity or solve a problem. Thus, they only try to align their resource mobilisation processes with the present demands of their environment. Nevertheless, they remain bricoleurs as defined by Lévi-Strauss (1962), as the findings showed.

The second theoretical contribution relates to the role of time in entrepreneurship. The findings confirm the importance of time's role beyond usual considerations such as timing of market entry or Initial Public Offering (Zachary, Gianiodis, Payne, & Markman, 2015, among others). In particular, the way time is experienced and approached by entrepreneurs must be understood in relation to its fit with time-related expectations within the environment. I thus suggest that the approach to temporality is an important but, so far, underestimated dimension of contextualisation (Welter, 2011) that might have important implications for the existing body of knowledge on entrepreneurship, which is mainly shaped by assumptions of linearity.

The findings allow me to refine the definition of cyclical and linear approaches to temporality (Ancona et al., 2001; Duymedjian & Rüling, 2010; Mosakowski & Earley, 2000; Orlikowski & Yates, 2002; Reinecke & Ansari, 2015). The cyclical approach is characterised by: a short-term vision of time, where the past dictates the present and the future; and a slow day-to-day rhythm characterised by habits, limited hope and little ambition. In contrast, the linear approach is related to a long-term vision of time marked by major events, where the future dictates the present in a cause-and-effect relationship that implies fast-moving actions to fulfil multiple hopes and ambitions. I show that it is possible to have a mixed approach to temporality, and that this appears to be more suitable for entrepreneurs operating in uncertain environments. A mixed temporality implies that entrepreneurs adopt a cyclical conception of time with regard to their environment and the uncertainty that it carries, but adopt a more linear thinking as regards their accumulation of resources. Such a mixed approach appears to be better suited to entrepreneurial bricolage as defined by Baker and Nelson (2005): the entrepreneurs I examined used bricolage to create something out of what was at hand, but also to build further on the outcome at later stages.

Finally, I show that the relationships between linear approach and engineer, and between cyclical approach and bricolage (Duymedjian & Rüling, 2010) do not necessarily hold. Instead, in the context of this study, entrepreneurs who deliberately used bricolage adopted a mixed approach. Both linearity and cyclicity may push entrepreneurs towards non-deliberate bricolage behaviour, which I coin 'imposed bricolage'. I argue that the fit of temporal orientation with the environment is of particular importance in determining the success of bricolage behaviours.

This study has practical implications for both entrepreneurs and policy-makers. By highlighting the role of played by temporality in the likely success of resource mobilisation practices, this paper makes the case against following grand management theories that usually tacitly assume

that entrepreneurs will adopt a ‘Western’ temporal approach in any environment. Instead, this piece of research shows that, to be successful, entrepreneurs need to understand diverging types of temporality and adjust their bricolage practices to the temporal complexity that characterises most developing countries in which international intervention has taken place. Conceptions of time are unconscious and culturally embedded in each individual (Hall, 1992). This implies that entrepreneurs have to identify the cyclical and/or linearity of the context in which they operate.

For policy-makers, the case of the waste management sector in Ouagadougou clearly shows that the co-existence of two temporal approaches creates additional uncertainty for entrepreneurs with regard to how they can mobilise resources. In turn, this adds obstacles on the path to entrepreneurial success. This is especially important in the case of sustainable entrepreneurship because it plays an important role in meeting the United Nations’ Sustainable Development Goals (Shepherd & Patzelt, 2011), which constitute a major challenge for the well-being of future generations, especially in Africa.

The limitations of the study, which constitute as many opportunities for future research, need to be acknowledged. First, entrepreneurial behaviour was studied in the specific context of waste management in Ouagadougou, Burkina Faso. The role of temporality needs to be investigated in other contexts, both in terms of sector and culture, to allow for generalisation. Also, despite the long experience of one of the authors with the Burkina culture and the great care taken to avoid cultural bias, my own European education and temporal orientation may have introduced a bias in my understanding of the temporal orientation of actors. By exploring a field that is not driven by a clock-time conception of time and showing the importance of temporal conceptions for resource mobilisation strategies, this paper questions the (mostly tacit) assumption underlying most existing studies on entrepreneurial behaviour, in particular those on entrepreneurial bricolage. It opens the way to the further contextualisation of theories in the entrepreneurship field (Welter, 2011; Welter & Gartner, 2011). Indeed, the contextualising dimension of time has been poorly considered so far.

5. DISCUSSION

The main objective of the discussion section is to address the central research question: how can we explain the diversity of resource-mobilising strategies adopted by different types of SSA entrepreneurs to deal with the uncertainty and complexity of their context? To do that, I will first synthesise and integrate the findings of the whole research, as presented in the three papers. I will show how the findings fit together to provide a coherent and pertinent answer. Second, I will discuss the contributions expected at the beginning of the thesis, both theoretical and managerial. Finally, I will end with the limitations of my doctoral research and suggest several ways to continue this work in the future.

5.1. Integration of findings

In Paper I, after determining the critical resources for entrepreneurs and analysing the system of dependences they faced, the findings revealed the four strategies they used to reduce contextual constraints. Among them, I found three dominant strategies resulting in different development paths. A first category of entrepreneurs tried to conform to their context by using a compliance strategy towards their regulatory environment and management theories. Another category of entrepreneurs preferred an avoidance strategy out of spite, because they felt powerless to really act and impact their environment. A third category of entrepreneurs implemented a bypass strategy, which seemed to be particularly successful in this challenging context.

These initial results give a partial answer to the central research question, documenting adopted strategies and how they relate to various resource dependencies. However, this does not enable me to understand what determines the choice of these strategies among entrepreneurs and why they are so varied. Furthermore, following the first discourse analysis in Paper I, the perceptions and views of the world (metaphysics) of entrepreneurs seemed to play an important role in strategy selection and in the way in which they mobilised required resources. For this reason, I decided to explore two aspects of their world view, Weick's famous 'enactment' (Weick, 1995), in the next two papers. In Paper II, I focused specifically on the roles of entrepreneurs' perceptions. Investigating their own discourse, I found three types of perception playing a role on the way they accessed entrepreneurial resources: the perception of environmental (contextual) uncertainty, the perception of their venture's mission and their self-perception. On the basis of these findings, I identified three possible 'perception-practice' patterns, each of

which features a relationship between entrepreneurial perception and specific resource access practice: 'submissive', 'oscillator' and 'opportunistic'. Submissive and oscillator entrepreneurs both felt constrained by external actors in their access to resources; however, the former adopted a *laissez-faire* approach, whereas the latter relied on the prescriptions of mainstream management theories to deal with uncertainty. By contrast, opportunistic entrepreneurs had a positive perception of environmental uncertainty and of their own capacity to succeed, which led them to view resources as very accessible and turn potential threats into opportunities. Finally, perceiving oneself as an entrepreneur dependent on one's context or, on the contrary, as autonomous and free to make one's own choices, will have implications on one's trajectory and the venture's development path.

In Paper III, in order to complete the analysis of the world view of entrepreneurs carried out in Paper II, I tackled another metaphysical aspect of entrepreneurship, i.e. the role of time in the social construction of resources, and thus its impact on entrepreneurial practices. The findings revealed that entrepreneurs who approached time in a cyclical way behaved like bricoleurs in the sense employed by Lévi-Strauss (1962) whereas those who demonstrated a more linear approach resembled engineers. By contrast, a third category of entrepreneurs played with cyclical and linear views of time as they responded to the dual temporality of their context.

These three different approaches to time among entrepreneurs had two different consequences in terms of resource mobilisation and bricolage techniques. First, even if some entrepreneurs preferred optimisation techniques, bricolage was *imposed* when they felt under the pressure of contextual constraints and were problem-oriented in their resource mobilisation process. Conversely, bricolage was *deliberate* when mobilising resources through bricolage was a choice guided by perceiving an environment full of opportunities. These entrepreneurs were likely to align their temporal approach with the complex environment, resulting in a better development path than entrepreneurs employing imposed bricolage, who tended to maintain a status quo, attempting either barely to survive or to stabilise their venture.

Seven of the eight entrepreneurs in the case studies were leaders of the sector, so I considered them emblematic for several reasons, which I exposed in the data collection section in the introduction of the dissertation. Four case studies were systematically exploited in the three papers of the thesis, two other case studies in two papers out of three, and only two case studies were only used in the first paper (including the informal not-for-profit venture). Therefore, the

findings of the three papers are valid for most entrepreneurs, and I may consider that the synthesis of the results is representative of entrepreneurs in the sector.

Table 5.1. Synthesis of research questions and answers

	Paper I	Paper II	Paper III
Research questions	In uncertain contexts where formal and informal intertwine, how do ventures react to constraints imposed by the changing context in order to access critical resources?	How can entrepreneurial perceptions help us understand the diverse avenues through which African entrepreneurs access resources in an uncertain environment?	How does an entrepreneur's temporal orientation shape the construction of resources in the challenging context of a developing country?
Theoretical lenses	Resource dependence theory	Cognitive entrepreneurship	Time & entrepreneurship Entrepreneurial bricolage
Methods	Deductive 8 case studies	Abductive 4 case studies	Abductive 6 case studies
Answers to research questions	Entrepreneurs react to constraints imposed by their changing context by using four strategies in parallel. Yet each entrepreneur uses only one dominant strategy to access critical resources, aiming to stay and develop: compliance, avoidance or bypass.	Perceptions (of venture mission and environmental uncertainty) as well as self-perception can be associated with distinct approaches to accessing resources when facing the same uncertain regulatory environment: submissive, opportunistic, or oscillator.	Following the ideal-type approach, the results exhibit three patterns of dealing with temporalities, i.e. cyclical, linear, and mixed. These shape two types of resource mobilisation process, i.e. imposed and deliberate bricolage.

The combination of the three papers' findings results in an ideal-type typology of three entrepreneurs' profiles whose name comes from Paper II: the oscillating profile, the submissive profile and the opportunistic profile. I do not comment on the case of the informal not-for-profit venture. Indeed, it has not suffered all the challenges of the sector since the beginning; it is more collective in nature than the other seven, which have become either 'individual' ventures or not-for-profit ventures; and it is informal, which may impact its resource mobilisation practices, for example perception of the legal context.

The thesis path was refined as the papers progressed. The papers are cumulative, which allowed me to study more and more complexity. Therefore, Paper III is the one where I described in greatest detail the conceptions of time and, especially, the entrepreneurial postures, which leads me to an overall discussion. I observed a number of elements that were consistent with each

other, with reciprocal influences rather than a unidirectional causal link. The central typology that integrates all these elements is therefore cyclical and reflects the most enriched, accomplished, complex version of things, even if some entrepreneurs favour a more linear approach.

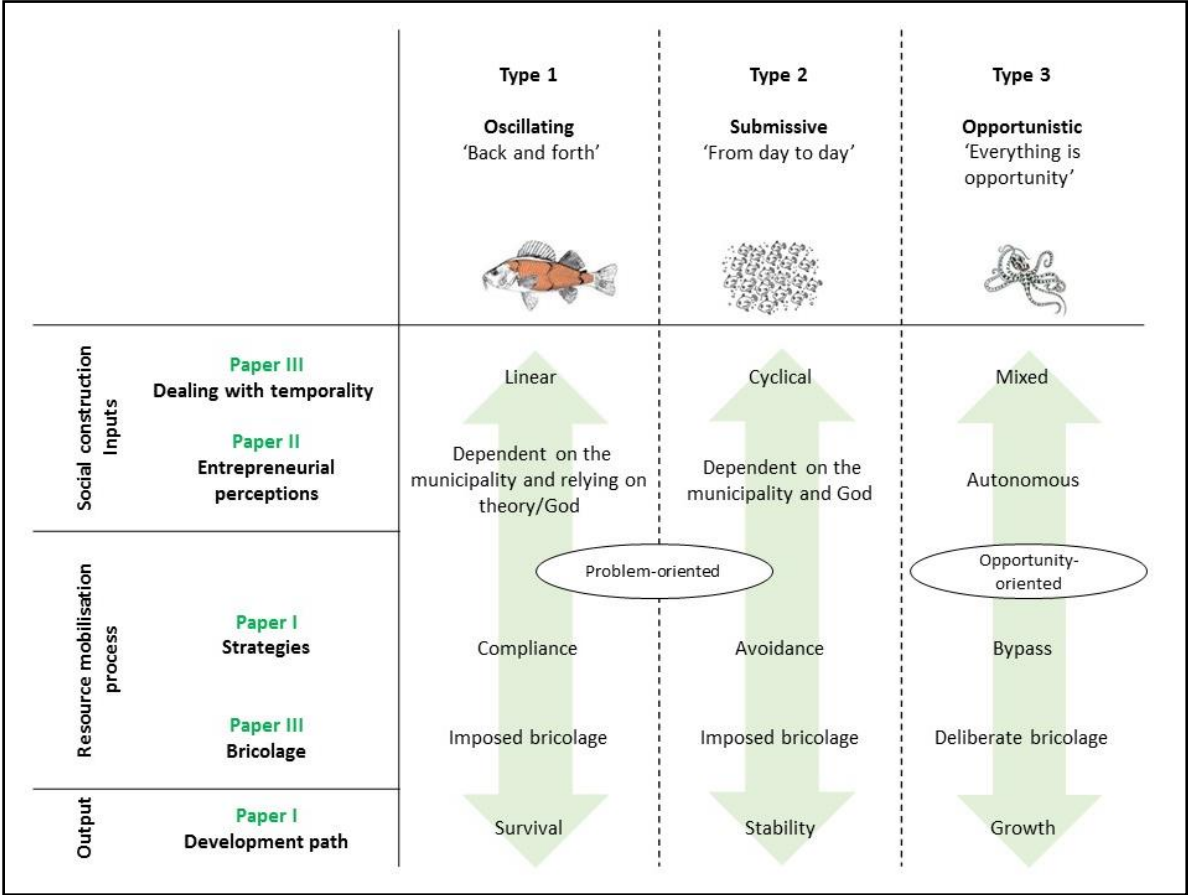


Figure 5-1. Integration of the three papers

I came to view the empirical setting of the thesis as a constantly shifting ocean, sometimes calm, sometimes threatening, so decided to use the name of a marine animal for each of the identified profiles. Using this animal metaphor has allowed me to popularise the results and also to shape my thinking.

Type 1: Oscillating entrepreneurs — ‘back and forth’ — salmon

The oscillating entrepreneurs have a linear view of time. They do not like uncertainty because it means that they cannot control future events, which causes them a lot of stress. For them, the municipality is the key because today they control everything. In an attempt to reassure themselves and fight this uncertainty, they try to bring the venture into compliance with the constraints of their external environment by using optimisation techniques, i.e. applying a

highly standardised vision of resource management. To be operational on the market, they follow what Western mainstream management theory states regarding planning and anticipating, e.g. you need many people ready to operate (training), standard equipment (trucks) that is operational (repaired in advance), and so on. So, they accept (in a way) the constraints imposed by their environment and put everything in place within their venture to comply with it. Unfortunately, in this very unstable environment, these ‘standard’ strategies do not work and lead them to failure. Since they are problem-oriented, they are forced to adopt bricolage techniques to survive. I called this ‘imposed bricolage’ because it is a reluctant choice. It results in poor development for these entrepreneurs; they merely survive for several years.

I call this profile ‘Salmon’, veering up and down the stream, depending on the temperature of the environment and the danger level: when they see the environment becoming favourable towards their venture (e.g. future call for tenders), they try to professionalise their venture, invest in material (trucks) and people. But when a crisis appears, which is often the case in this very uncertain context, they can no longer manage: they have to fire or replace people, or move to a smaller office. And this process is repeated every time in an attempt to succeed because these entrepreneurs are ambitious and strongly believe in their activity. Unfortunately, the population of salmon is suffering, becoming an endangered species.

Type 2: Submissive entrepreneurs — ‘from day to day’ — shoal of fish

Submissive entrepreneurs have a cyclical view of time. They maintain a day-to-day tempo without always thinking about tomorrow, using the resources at hand and their past experience. They perceive uncertainty as a situation of comfort because they are not facing any danger as long as the context is stable and does not ask for any change. They do not know if future changes will be favourable or not; therefore, they prefer to ignore them. They feel small and powerless because they are afraid of the dangers posed by all the actors in their environment, particularly the municipality; so they rely mainly on God. They prefer to navigate all together in harmony in the same sea. Because they are also problem-oriented, using bricolage techniques is perceived as an ‘obligation’ that allows them to avoid contextual constraints. They ‘make do’ with the resources at hand because they think they have no other choice: they neither have the ability to absorb these constraints, nor to bypass them. This is why they adopt a *laissez-faire* attitude. This strategy allows them to remain stable over time; over the past 25 years, these entrepreneurs' ventures have not changed much. Given the complicated context, this can be considered a lesser evil.

I named this profile of entrepreneurs ‘shoal of fish’ for several reasons. Shoals of fish are a fascinating phenomenon to watch. While it seems that the fishes are randomly distributed, there is a sense of central, intentional control. However, the movement of the shoal results from the individual actions of each animal, the latter acting solely on the basis of local perception of its environment. They feel small and can quickly be eaten by predators. Their survival depends on more supportive practices, helping each other, even informal actors. These strategies are written in their DNA as they have been not-for-profit ventures for a long time.

Type 3: Opportunistic entrepreneurs — ‘everything is opportunity’ — octopus

Opportunistic entrepreneurs have a mixed view of time, sometimes linear, sometimes cyclical. This is very valuable because it allows them to juggle with the temporality of their context, which is also sometimes circular, and sometimes linear — because it lies between tradition and modernity. Uncertainty in their context does not induce any stress; instead, they do not see the constraints, but perceive them as opportunities. Their experience and recognition within the sector make them confident and strong; they are used to change so they are not afraid of it. They ‘make do’ with available resources because they want to succeed at all costs, even if it means breaking the rules. They can justify every action undertaken, even if it may objectively be considered a problem. Therefore, using bricolage techniques as a deliberate choice allows them to bypass or transform contextual constraints to their advantage. They constantly adapt to their changing context, playing with traditional and modern values of management, for example moving from not-for-profit to for-profit status while keeping local equipment (donkey carts) or hiring employees’ children. Their strategy is successful because it aligns their resource mobilisation practices with the multiple demands of their context. They know that redistribution is important, and they have a social behaviour that is at least acceptable in order to retain their employees and customers. Since their creation, the ventures of these entrepreneurs have grown steadily.

These entrepreneurs act like octopuses, characterised by great aptitude and eight tentacles, using one or the other according to their needs. They know how to blend in with the crowd, either to eat better or to attack competing fishes.

5.2. Theoretical contributions

By analysing in-depth cases studies of entrepreneurs in a situation of extreme uncertainty, the thesis tackles a first considerable challenge in entrepreneurship studies: to better understand

entrepreneurship in Africa (Bruton, Ahlstrom, & Obloj, 2007; Devine & Kiggundu, 2016; George, Corbishley, Khayesi, Haas, & Tihanyi, 2016; Kamdem, 2001; Kolk & Rivera-Santos, 2018; Kshetri, 2011). It helps to overcome the lack of theoretical and empirical African studies and to know more about the specificities of African entrepreneurs and their context, particularly in a francophone country (Devine & Kiggundu, 2016; George et al., 2016; Kolk & Rivera-Santos, 2018; Kshetri, 2011). Moreover, the thesis challenges existing entrepreneurial theories and complements them. Finally, the present research questions central notions in management and entrepreneurship, particularly through the lens of the social economy and social entrepreneurship.

5.2.1. Typologies of African entrepreneurs

The integrated results of the thesis suggest a typology of three profiles that can characterise sub-Saharan African (SSA) entrepreneurs in challenging environments. Even if, at this stage, I do not claim that the results are valid for all African entrepreneurs, I suggest that they will help to question the universal typologies of entrepreneurs and, overall, to complete existing typologies on the African continent. In this regard, the literature is still in its infancy, especially concerning the in-depth analysis of entrepreneurial behaviour.

Among existing categories of African entrepreneur, there are the ‘barefoot entrepreneurs’, who represent all small entrepreneurs in various sectors, acting at the margin of economies, close to the informal and/or popular economy (Hillenkamp et al., 2013; Imas, Wilson, & Weston, 2012; Kamdem, 2002; Laleye et al., 1996). They have also been named ‘survivalist entrepreneurs’ and contribute significantly to their country's economy, contrary to what is stated in the dominant economic literature (Choto, Tengeh, & Iwu, 2014; Imas et al., 2012). Another large class is made up of entrepreneurs originally coming from the political sphere, thus benefiting from an extensive business network (Kamdem, 2002).

More recently, a new type of entrepreneurs is providing viable solutions in Africa. These are African entrepreneurs who have often studied abroad or even spent several years in industrialized countries, thus developing a know-how that they use to create their own business in their country of origin (Severino & Hajdenberg, 2016). In this way, they dare to take risks, by responding to the needs of their country, which they seize as opportunities i.e. niches that large international companies cannot penetrate. Severino & Hajdenberg (2016, p. 164) define these entrepreneurs as ‘social engineers, creators of a new form of middle class, independent,

free and bold, who turn their backs on the classic path of honour and social consideration. Because these entrepreneurs often operate in a context of huge poverty, and sometimes the “poor” are their customers or suppliers, they take into account this context, thus developing an acute social awareness’. Moreover, they are often aware of environmental issues (e.g. climate change) and are therefore sensitive to the challenges of waste management or renewable energy (Severino & Hajdenberg, 2016).

On the basis of a wide Cameroonian experience, Kamdem (2002) offers a typology of five entrepreneurs, grouped into two categories. This typology is particularly interesting to discuss in relation with the results of the thesis because it is one of the rare typologies of African entrepreneurs in the literature that explores the behaviour of entrepreneurs into greater depth. The first of Kamdem’s category concerns three types of entrepreneurs called ‘socio-political’. The first type relates to the ‘whining’ entrepreneur. Victim of a feeling of perpetual persecution, these entrepreneurs constantly blame their environment. They are very cautious and will be very reluctant to take risks.

Another type is called the ‘mystifying’ entrepreneur. These entrepreneurs are imbued with themselves, are born seducers, are driven by strong self-confidence and an extreme desire for recognition that they want to gain through their activity. Unfortunately, their business project, which they praise out loud, often hides several major problems; but they manage to hide these because they are clever.

The third type of entrepreneur is the ‘resigned’ entrepreneur. They are characterised by a feeling of powerlessness because after a period of flourishing activity, they have faced many difficulties that they cannot overcome (competition, unsuitable product, etc.). They are therefore forced to reduce their activity to a minimum or even abandon it. Often frustrated, they must overcome their loss of identity and therefore the loss of recognition they had achieved in the sector. Kamdem points out that this type of entrepreneur has generally gone into business by chance, just seizing an opportunity but does not have the profile of a businessman in the first place. Their entrepreneurial behaviour is characterised by what Kamdem calls a pendulum swing, first swinging strongly in the right direction, as soon as an opportunity presents itself, before retreating, and then repeating this movement continuously. This type of entrepreneur strongly resembles the oscillating entrepreneurs of the typology in this thesis, who are demotivated by decline in their activity and try to survive by going back and forth in the mobilisation of their

resources. The oscillating profile completes the resigned profile by providing a cognitive and metaphysical dimension that helps to explain some of the characteristics of these entrepreneurs.

The second category of entrepreneurs according to Kamdem is made up of 'professional entrepreneurs'. First comes the 'resourceful' entrepreneur, who often started from scratch, i.e. from the informal economy. He/she did not develop within a sizeable professional network and did not benefit from significant resources. These entrepreneurs often become a relay in networks of exchange and reciprocity. Kamdem also refers to the 'neo-resourceful' entrepreneur, who did not start from scratch but previously was an employee. The latter benefits from a network that allows him/her to become a great negotiator. The resourceful entrepreneur resembles the submissive entrepreneur in this thesis, also starting from scratch, launching the waste collection activity for subsistence and to help idle women in the neighbourhood. They manage with the resources at their disposal because they have no other choice. Earlier, some worked as employees and thus benefit from a small network but have not gained any bargaining power, even if they have gained some recognition among their peers. On the other hand, what predominates in the results is not their resourcefulness but their submission to their environment. Despite being resourceful, they feel so helpless and small in their changing and complex environment that they mostly adopt a *laissez-faire* attitude and avoidance strategy.

Kamdem's last entrepreneur type concerns the 'challenger' entrepreneur. This type of entrepreneur firmly believes that each individual is endowed with personal capacities that can be mobilised for his or her business. What is particularly interesting in this research, is that the challenger entrepreneurs are both open to the rest of the world and own a vision of traditions that has a power of development within the company. They therefore combine the two visions, tradition and modernity, as do the opportunistic entrepreneurs of the present research. They feed on challenges and do not complain about competition, which is also seen as an additional positive challenge. They lead an offensive rather than a defensive strategy and do not hesitate to crush the competition, as is the case for Kamdem's challenger entrepreneur. Crises are not perceived as problems but as opportunities. In fact, they create opportunities instead of simply discovering them (Alvarez & Barney, 2007; Vermeire & Bruton, 2016). This means that the opportunity does not exist outside of any entrepreneur's social construction (Alvarez, Barney, & Anderson, 2013; Vermeire & Bruton, 2016). Vermeire & Bruton (2016, p. 270) go even further by demonstrating that 'poor entrepreneurs who create opportunities will be able to generate more profits over the long term and thus have increased chances to increase their capabilities to function'. In addition, to seize the opportunity, these entrepreneurs will draw on

resources available to them. This once again shows to what extent cognitive constructions play a crucial role in the entrepreneurial process, in particular in the mobilisation of resources (Vermeire & Bruton, 2016).

This discussion of an ideal-type categorisation of African entrepreneurs is more exploratory and helps to explain the diversity of profiles. The similarities and differences between the profiles in the literature and the profiles determined by the results reinforce the relevance of the inductive approach of this piece of research, designed to grasp the wealth of behaviours and cognitions.

5.2.2. Context & entrepreneurship studies

Another theoretical motivation of the dissertation was to examine how African entrepreneurship resonates with Western-based entrepreneurship theories and, potentially, refine them. Papers II and III achieve this goal by contributing to several sub-domains of entrepreneurship studies and integrating the diversity of African research into mainstream literature.

In Paper II, I added to the cognitive perspective of entrepreneurship studies. First, I documented the role of cognition in mobilising access to resources, which leads to a better understanding of how African entrepreneurs enact their environment. I identified the interplay between different types of perception and resource access practice, thus explaining why such practices vary despite an ‘objectively’ common and uncertain environment. Second, the study helps to better understand the peculiarities and diversity of African entrepreneurship in terms of both entrepreneurial cognition and access to resources (Bruton et al., 2008; Kolk & Rivera-Santos, 2018). I suggest that such diversity reflects different entrepreneurial positions in between local, traditional economic practices and international business influences.

Paper III discussed the theory of entrepreneurial bricolage (Baker & Nelson, 2005) and the role of time in entrepreneurship. First, by returning to a more ideal-typical conception of bricolage (Duymedjian & Rüling, 2010), it participates in the effort to present a more comprehensive and systemic view of entrepreneurial bricolage. This is supported by studying entrepreneurial bricolage in the face of contextual constraints that significantly differ from those found in developed countries. Here, I highlight the fact that the intangible repertoire of resources and metaphysics, in particular how the entrepreneur conceives time, are important dimensions in the construction and mobilisation of resources. Second, I argue that the use of time in entrepreneurship is rooted in Western logic and metaphysics, where time is linear (Bird & West,

2011), in contrast to a non-Western setting where the issue of time control is, in essence, hard to achieve because of the high uncertainty level and a more cyclical view of time. This may explain why, in contrast to Baker & Nelson (2005), I observed entrepreneurs using bricolage that do not perceive their environment as resource-poor but full of opportunities. The theory of entrepreneurial bricolage has only recently emerged, and findings in a SSA setting thus give it a new impetus, especially by re-incorporating metaphysics in entrepreneurial bricolage theory (Devine & Kiggundu, 2016; George et al., 2016).

By studying a non-Western context, the thesis challenges some assumptions of current theories, particularly the role of context in management and entrepreneurship theories that does not reach a consensus between context-specific, context-free or context-bound knowledge (Kolk & Rivera-Santos, 2018; Tsui, 2007; Welter, 2011; Welter & Gartner, 2011). As it has been shown in other domains, scholars should not take for granted that the findings in a developed country will fit the findings in emerging and developing countries, as if the context did not have any impact (Bruton et al., 2007). The diverging findings of the thesis demonstrate that context plays a manifold role and that a consensus lies at the heart of context-specific, context-free and context-bound knowledge. The debate remains open.

Following a more deductive approach, Paper I could have led me to believe that context does not impact resource dependence theory, since entrepreneurs implemented many different strategies to reduce their dependences towards their context. Nevertheless, deeper investigation in Paper II revealed that context does play a role in the entrepreneurial process, but only in the way it is perceived by each entrepreneur individually. It is not the context itself but its perception that, essentially, is decisive. Finally, Paper III showed that the specificities of context play an important role through the culture to which it is linked, its historical development and the changes that have transformed it, particularly in terms of temporality. Therefore, the ability to adapt to the temporality of one's context in all its diversity seems essential for the success of entrepreneurs. Furthermore, the results also indicate that entrepreneurial bricolage is conducted differently in SSA countries than it is in developed countries, demonstrating that the actual knowledge of the theory is context-specific, and that this part of the story has been missing.

Traditional entrepreneurship theories are often based on profit maximisation assumptions. This may not be universal, especially in countries where the search for collective well-being takes precedence over personal well-being. For this reason, several authors have called for a better study of the links between culture and entrepreneurship, particularly in emerging and

developing countries (Beugré & Offodile, 2001; Bruton et al., 2008; Kamdem, 2002; Kolk & Rivera-Santos, 2018; Mutabazi, 2006). Mutabazi (2006), in his study on the diversity of cultures and management models, explains that management models imported into Africa have most often failed, because entrepreneurs and managers have to face dual norms: those of the model imported from the West and those of what he calls the local ‘African circulatory model’. This model is characterised by the fact that goods, people, human energy, power and information are constantly flowing in order to ensure the survival of the community (family, group, etc.). Mutabazi argues that if one understands this circulatory model and integrates it into both theory and practice, it is a powerful development path lever for African entrepreneurs and businesses. However, if one ignores it, it can lead to failure. The results of the thesis complement this interesting insight. While oscillating entrepreneurs of the typology achieve low levels of development, mainly based on management models imported from the West, opportunistic entrepreneurs both play with imported Western and local circulatory management models, which guarantees them an increasing level of development. I can recall the example of FP4, who ensures the circulation of human energy by hiring the children of retiring employees or by keeping a large number of employees for waste collection with trucks, whereas management theory would have replaced humans with machines.

The objective of the research was also to make African contexts more visible within the general entrepreneurship research (Kolk & Rivera-Santos, 2018). Given that most SSA countries have had to integrate Western development policies into many public and private sectors, I assume that the results of the research will make sense for a majority of African entrepreneurs in other sectors as well: they too have been working for the past thirty years in a context that blends local and international standards and thus disrupts the way they can mobilise resources.

5.2.3. *Collective vs individual dimensions of entrepreneurship in an African context*

One of the empirical questions at the beginning of the thesis concerned the collective and/or individual dimension of the ventures’ and entrepreneurs’ objectives. Observing blurred boundaries between for-profit and not-for-profit, it was difficult to characterise the entrepreneur as well as the venture. Hence, I asked *how can we understand the complexity of these diverse actors? How can we characterise them and understand their entrepreneurial practices?*

First of all, in the investigations of Paper I, the unit of analysis moved from the organisation to the entrepreneur, thus from a collective perspective to a more individual one. Second, in the following papers, the results showed that collective-based and reciprocity-oriented behaviour

embedded in African culture were intertwined with entrepreneurial values of Western inspiration while shaping responses to uncertainty. These two interesting findings led me to question the objective distinction between for-profit and not-for-profit and, in particular, the pre-existing collective, 'social' nature of the African context and its ventures.

Blending commercial and social goals, the social entrepreneurship literature is an inspiring theoretical lens to examine the above issues. Many definitions of social entrepreneurship can be found in the literature, according to different schools of thought. Nevertheless, in a broad sense, social entrepreneurship is considered to be an entrepreneurial process whose objective is to contribute to a societal need, as opposed to classical entrepreneurship (Bacq & Janssen, 2011; Jacques Defourny & Nyssens, 2012). Therefore, profit is not an aim but a means. On the basis of the different schools of thought and the different models of social enterprise described in the literature, Defourny & Nyssens (2017) have developed an international typology of four social enterprise models. First of all, the entrepreneurial non-profit model (1), which concerns not-for-profit ventures that develop an income-generating activity for the purpose of financing their social mission (commercial non-profit approach). The social cooperative model (2) was originally based on mutual interest and stems from the cooperative model, where the venture is owned and controlled by its members. The social business model (3) is, in practice, the dominant model and concerns businesses who address social and/or environmental problems. Finally, the public-sector social enterprise model (4) concerns public authorities that set up a company to serve a common good.

Can the typology of entrepreneurs defined in the thesis be compared with the typology of social enterprise in an African context? Partial answers can be given but more investigations will be needed. Nevertheless, it is certain that one category of entrepreneurs in the study, the not-for-profit entrepreneurs, carry out a commercial activity for societal purposes. They clearly state that their objective is to provide an income for the poor women in their neighbourhood, but also to have a clean environment. These initiatives, rooted in the social and solidarity economy, contribute, by the strategies of 'reproduction of the life', to survival in a context where both the state and the market are reduced to their meanest share (Hillenkamp et al., 2013). In Paper II, I even showed that the perception of this mission plays a role in how ventures access resources, preventing them from taking too many risks and making them follow practices that often display a sense of solidarity, even with informal competition. However, these not-for-profit entrepreneurs not only point to the entrepreneurial non-profit model of Defourny & Nyssens

(2017) but also to the social cooperative model, since some of them were originally created to achieve a mutual interest.

As regards the other entrepreneur profiles in the research typology, it seems that they have characteristics in common with the social business model (Jacques Defourny & Nyssens, 2017b), but there are also many points for discussion. Indeed, even if they operate in a sector that aims for sustainable development through waste collection, and even if they are all driven by the desire to clean up their environment while paying particular attention to their staff, some are also driven by the objective of growing or simply providing incomes for themselves. Therefore, as Defourny & Nyssens (2017b) points out, it seems that a consensus on the search for SE models is impossible, especially for an African setting.

Many authors consider that social enterprises in Africa are rooted in the social and solidarity economy (SSE) (Bessis & Hillenkamp, 2013; Defourny, Develtere, & Fonteneau, 2000; Defourny & Nyssens, 2012, 2017a). Also named ‘the third sector’, the SSE is an economy that has always existed in Africa, particularly to meet basic needs not fully addressed by the public and traditional private sectors (Jacques Defourny & Develtere, 1999). Fall & Guèye (2003) consider that, historically, SSE in Africa arose from a business tradition of merchants and carriers, such as the ‘Nanabenz’ in Togo and Benin and the ‘Allaji’ in Nigeria, Mali, and Burkina Faso. Typically, in Africa, individuals have always gathered by village and, often, according to age or gender, to help with the agricultural or commercial work within a community, for the benefit of each member (groups of women, youth not-for-profit ventures, villagers’ committees, etc.). Therefore, the authors consider SSE in Africa to be an instrument to build groups and group identities. They specify that ‘these actors surf in their groups, draw their resources from them, contribute to the integration and empowerment of their members in a process of redistribution that is certainly unequal, but inserted into a humanization of the exchange relationships’ (Fall & Guèye, 2003, p. 110).

In addition, according to the African Institute for the Economic and Social Development of Ouagadougou, mutual aid and solidarity ventures have their roots in traditional social relationships (Dialla, 2005). Their natures and functions are very diverse, they are based on the importance of social cohesion and rooted in community values. As a result, Africa is often characterised by strong community participation. Within a community, each member develops strong solidarity ties, thereby accumulating social capital, especially because there is no formal public redistribution mechanism as is the case in Europe (unemployment benefit, health

insurance, etc.). Hence, each one will do the other a favour, hoping one day to have the favour returned. This is the principle of ‘gift/counter-gift’ (Laurent, 1998; Ndione, 1992; Servet, 2007). Nevertheless, since the country became independent, this traditional behaviour has tended to come under pressure with the arrival on the continent of the Western market economic model — with its principles of individual freedom and profit accumulation (Kamdem, 2016; Platteau & Abraham, 2001). Therefore, when a person in the community becomes rich, they must share it with the whole community to maintain social harmony (Laurent, 2012; Platteau & Abraham, 2001). This so-called ‘reciprocal transfers’ behaviour is all the more important because if individuals disregard it, for example by trying to enrich themselves on their own, the finger is pointed at them, they are poorly considered by the rest of the community or, even, may be accused of witchcraft (Laurent, 2012; Platteau & Abraham, 2001). It is therefore understandable that some of the opportunistic entrepreneurs in the study prefer the vagueness of uncertainty, which allows them to somehow hide their success — and thus the accumulation of profit.

As a result, there are tensions between a traditional egalitarian society and a more individualistic society now emerging in Africa, which implies that communities are not always collectively at peace, as is often idealised (Platteau & Abraham, 2001). On the contrary, they are sometimes considered repressive because members must submit to the rules of redistribution when there is accumulation, or face the risk of social retribution. Platteau and Abraham (2001) call this phenomenon ‘community imperfection’. Therefore, Africa's current challenge is to find a balance between an individual enrichment of successful entrepreneurs that is acceptable to the community and a solidarity redistribution that is sustainable for the entrepreneur (Severino & Hajdenberg, 2016).

In 2003, Defourny, Develtere & Fonteneau conducted some interactive research, which submitted the social economy concept to the critical contributions of a sample of academics and practitioners from developing countries, mainly in Africa. It emerged from this study that the concept was little known and hardly used in the academic and public spheres. Nevertheless, the characteristics of the social economy which seem to be most important in developing countries are as follows: the combination of multiple objectives (economic and social in particular) to try, in a general way, to improve the living conditions of members of the ventures and the community; the hybrid nature of the social economy (commercial, non-commercial, non-monetary economy); and the high level of participation, implication and empowerment of population groups in initiatives mobilising some cultural features (Dialla, 2005). However, the

study participants expressed several criticisms towards the concept applied in developing countries:

- The approach is too formal and too European-centric; the concept is too narrow, underestimating the importance of the African context;
- Informal ventures are not taken into account;
- Decision-making is not always democratic in African organisations (power of a leader, birthright, consensus rather than vote, etc.);
- Due to the existence of some organisations managed by political elites, the autonomous aspect of the social economy is not always observed in Africa.

In Burkina Faso, the *Centre d'Analyse des Politiques Economiques et Sociales* (CAPES, centre for analysis of economic and social policy), published a study of the cooperative movement in Burkina Faso, in which it defined social economy ventures as ‘organisations of socioeconomic development which associate within them, in a structural way, the economic and the social, the commercial and the non-commercial, in the service of the socioeconomic development of the village territory’ (Soulama, 2003, p. 140).

At a more epistemological level, Baron (2007) studied the paradoxes and strengths of transferring the concept of solidarity economy to French-speaking Africa. The results highlight the dangers of the use of ‘catch-all’ concepts such as social and solidarity economy, which are used and understood differently by different people but influence the way in which people understand realities and the specificities of local economic initiatives. This results in a loss of meaning and impact. According to her, the transfer of the concept of social and solidarity to French-speaking Africa is conditional upon three steps: firstly, a new reference table needs to be built in order to understand the development issue; secondly, we have to examine how rules, under these concepts, are negotiated between local and international actors; thirdly, we need to ponder the relationships between states, markets and civil society.

With regard to private economic activities, Yaméogo & Wong (2011) recognise that in Africa, ‘the company is a means rather than an end’. The Burkinabe author, Yaméogo, also underlines that ‘the creation of business should allow the entrepreneur to live from its profits but also to make his close relatives and friends benefit from it and to deliver services to the community. He should also contribute to strengthen the social link and not to put it in danger’ (Yaméogo & Wong, 2011, p. 69). This author emphasises that the entrepreneur in Africa works in a context where the social and human aspects are already the focus point, and the obligation of solidarity towards the community is strongly rooted in African companies. The ‘economic end’ and the

‘social end’ are genuinely interconnected (Kamdem, 2016; Severino & Hajdenberg, 2016). One can even say that they constitute only one and the same end. For all these reasons, it becomes clear that the social and commercial dimensions of economic activities in Africa are not as distinct in nature as in ventures in Europe or North America. Once again, this demonstrates the complexity of what can constitute social entrepreneurship in the South, particularly in Africa.

Finally, one of the essential aspects of social entrepreneurship — governance — also raises questions in an African context. The data collection showed me that, despite the associative, therefore collective, nature of the ventures, it was the entrepreneurs who took all the decisions, with power strongly concentrated in their hands. As a result, I was unable to use data collected from other members of the ventures because they were not very relevant (see methodological section). This even led to a shift in the analysis unit: from venture to entrepreneur. This finding is consistent with the results of the study carried out in 2005 by several scholars trying to understand social and solidarity in Africa, particularly the fact that decision-making was not always democratic owing to cultural aspects (Dialla, 2005).

Moreover, even if solidarity ties are strong, African society is not egalitarian at all levels. In Burkina Faso, the Mossi, the main ethnic group in the country, is highly hierarchical (Hilgers, 2009, 2010; Laurent, 2012). The chief possesses a lot of power. This is strongly reflected within a village (village chief), within the family (head of family) but also within the venture (manager/entrepreneur). Furthermore, governance was also a crucial issue for the for-profit ventures in my case studies, given that three for-profit ventures were once a cooperative and two not-for-profit ventures. The cooperative became an individual venture because of many governance problems between the members (stolen money). Another not-for-profit became an individual firm because one of them wanted to be ‘the only captain on board’ (FP2).

This section highlighted a certain idealised image of Africa as a wholly collective and egalitarian society. Once again, this discussion showed how sensitive and challenging it is to use theories and concepts rooted in certain cultures to understand entrepreneurial practices in another culture. This is all the more important in contexts where entrepreneurial cultures mix. It is therefore crucial to use concepts with caution, at the risk of distorting reality and thus construct inappropriate theories.

5.2.4. *Critical perspective on central concepts*

After discussing the collective African dimension from a critical perspective, let me go deeper into the discussion on the critical stance. Indeed, central notions that may seem obvious in entrepreneurship are, in reality, controversial: for instance, uncertainty, resources, or the issue of time. This critical posture has been present throughout the thesis.

'Uncertainty', a core concept, objectively characterises the context of waste management in the case studies. This uncertain picture of the environment has an immediate negative connotation because it is assimilated to risk, i.e. to the dangers (for the entrepreneur or the venture) of navigating in an uncertain environment (Butler et al., 2010; Duncan, 1972; Jacquemot, 2016; Jauch & Kraft, 1986; McMullen & Shepherd, 2006). However, in reality, this view of uncertainty as 'dangerous' is that of the Western researcher that I am, trained by Western management theories, who observes a certain number of parameters that lead me to define this uncertain environment as problematic, such as: the changing nature of the sector's legislation, political instability, or the omnipresence of informality in various forms. In fact, through Paper II, I showed that the entrepreneur's perception of uncertainty could be opportunistic, and that, in addition, it played a role in the way he or she mobilised entrepreneurial resources. In the same way, change is not perceived as problematic by all types of entrepreneur.

As regards the concept of 'resource', I adopted a critical subjective posture in Papers II and III. First of all, the 'conventional/standard' aspect may be questioned. The word 'conventional' is commonly defined in many thesauri as 'which is established by use', 'which is in accordance with (social) conventions and not based on nature or reality'. Therefore, something can only be conventional or standard in relation to a particular social context and the use made of it in this context. However, the literature on entrepreneurship and management seems to have standardised certain resources, or the way these resources are managed, on the basis of a universal Western conception assumed to be valid on all continents — as if any managerial or entrepreneurial practice that is not conventional/standard from a Western point of view is not valid or cannot bring any successful results.

Yet, I observed that entrepreneurs who acted as deliberate bricoleurs had been succeeding for a long time, often by *not* using resources considered standard in the literature. In this sense, resources may be seen as social constructions and not as absolute categories (Baker & Nelson, 2005; Penrose, 1959). While standard entrepreneurship theories will consider the context of the thesis as a 'penurious' or 'resource-poor' environment, the results show that, in fact, some

entrepreneurs see their environment as full of resources or full of resource combinations enabling them to achieve their objectives. It is therefore the entrepreneur's perception of these resources that is decisive. Even the theory of entrepreneurial bricolage, which is based on the social construction of resources, characterises bricoleurs' environments as severely penurious and therefore does not question the contextual anchoring and cognitive views of entrepreneurs. Therefore, it is necessary to refine the famous 'to construct resources from nothing' since this 'nothing' is a purely Western (and erroneous) view, in stark contrast to some local entrepreneurs' perception of their environment as full of resources.

Time, whether perceived as a resource or as a simple social construction, is no exception to this questioning. The thesis showed that different conceptions of time existed within and among individuals, that this conception was culturally rooted and that, therefore, it played a role in how entrepreneurs shaped their activity. In contexts where different conceptions of time are intertwined, as is the case in the waste management sector of Ouagadougou, understanding how entrepreneurs perceive time is all the more important if we wish to build coherent and generalisable theories.

To conclude, the dissertation is part of the critical movement in entrepreneurship studies that aims to tackle the hegemonic nature of much mainstream entrepreneurship discourse 'by exploring the "taken for granted" norms of entrepreneurship scholarship as a whole including its ideologies, dominant assumptions, grand narratives, samples and methods' (Tedmanson, Verduyn, Essers, & Gartner, 2012, p. 532).

The dissertation contributes to this movement in different ways. First, as already detailed, the research demonstrates the extent to which studying non-Western settings reinvestigates theories of entrepreneurship (Tedmanson et al., 2012; Verduyn, Dey, & Tedmanson, 2017), especially the theory of entrepreneurial bricolage. Second, it studies a diversity of entrepreneurs and shows that the most successful are not those who most closely resemble the neo-liberal heroic (white male) entrepreneur (Imas et al., 2012; Tedmanson et al., 2012). On the contrary, entrepreneurs who try to mimic this standard profile are those who encounter the most problems. Moreover, by approaching entrepreneurs from the perspective of social entrepreneurship, the thesis studies a phenomenon that, by its very nature, is already part of the critical perspective in entrepreneurship studies, since social entrepreneurship challenges the sole pursuit (and maximisation) of profit in favour of a more societal and/or collective goal, particularly in an

idealised collective Africa. Lastly, the study goes even further by questioning orthodox concepts that are rooted in the dominant Western economic model.

5.3. Practical contributions

Since the primary motivations of the thesis came from the field, the research findings are intended to have strong practical implications for the various actors in the sector. The typology of entrepreneurs and the way in which each part is detailed in the thesis papers allows entrepreneurs to understand the keys to success as well as the failure factors that lead to the struggle to survive.

The findings indicate that continuously applying the theoretical prescriptions of classical management, as *oscillator entrepreneurs* do, does not work in a highly uncertain African field, rooted in a mix of local and Western rationalities. Adopting a linear vision that implies anticipating trends in the context leads to the failure of the strategies implemented by entrepreneurs, pushing them to renew their efforts to manage their venture. These entrepreneurs should be looking at the opportunities in their sector, rather than focusing on the problems. In addition, they should consider the potential of their local resources rather than, as they sometimes do, denigrate them, and be willing to deal with local management practices.

As regards *submissive entrepreneurs*, who continuously avoid constraints by not changing their practices over time in line with the professionalisation of the sector, they can ensure relative (but fragile) stability for their venture. Nevertheless, the study allows these entrepreneurs to better understand that adapting to changes in the sector will not automatically lead them to drift away from their social mission. On the contrary, it is possible to achieve better results while maintaining a not-for-profit spirit, as has been the case for some opportunistic entrepreneurs who were once not-for-profit, but are now for-profit. Indeed, *opportunistic entrepreneurs* who adopt a mixed entrepreneurial behaviour — between traditional theory and classical management — are the ones who best adapt to their context and therefore succeed.

Hence, this piece of research makes it possible to understand that a successful activity is not always dependent on objective factors. Access to standard resources (such as highly qualified staff or motorised vehicles) does not automatically make the activity successful. Factors of a much more subjective nature are strongly involved and are not to be overlooked by entrepreneurs. Therefore, the research findings enable them to increase their options as to how they can act on their context rather than endure it.

With this in mind, entrepreneurs who want to succeed in their business must be able to find the right balance between local and international standards. This requires a constant questioning of their practices in relation to their environment but, above all, a deep knowledge of themselves. To create a sustainable and successful activity and/or improve their effectiveness, they must above all rely on themselves and not focus everything on the potential actions of public structures or international institutions.

Government plays an important role in enabling entrepreneurs to contribute to economic growth (Devine & Kiggundu, 2016; Monga & Lin, 2015). Unfortunately, many studies show that, quite often, entrepreneurial failures in Africa are still due to external factors, such as institutional infrastructure (George et al., 2016). This research also highlighted many gaps in public management (public awareness campaign on waste management, management of informal ventures, corruption). Hence, local public authorities will also benefit from the thesis' achievements, particularly in the waste management sector but, also, in any other field requiring the involvement of the private sector. The findings can help public officials to better understand the different profiles of and, most importantly, to develop public policies that achieve a better balance between tradition and modernity. Although the results focus on the more cognitive and metaphysical aspects related to entrepreneurship, this does not absolve the public sector of its responsibility to do everything possible to ensure stability in the sector, and provide a clear and adequate regulatory framework. Moreover, the pressure of successful entrepreneurs is often family (solidarity redistribution) but it can also be fiscal (Severino & Hajdenberg, 2016). Many entrepreneurs prefer not to grow too much (or not officially as is the case among the opportunistic entrepreneurs in the study). Otherwise, the risk is to be overtaxed without knowing who will benefit. This also implies the problem of corruption, often massive in Africa. Therefore, the role of the state is to ensure a legal and fiscal environment that facilitates the work of entrepreneurs, particularly in sectors that impact the natural environment and the employment of marginalized people. Indeed, whether in the waste management sector or in other regulated sectors, the objectives of entrepreneurs and local authorities are the same: to guarantee that the work is well done in order to enjoy a clean natural environment.

Moreover, in a context where the State is struggling to provide solutions in all sectors and where entrepreneurship is seen as the miracle solution to the problem of poverty (Alvarez & Barney, 2014; Devine & Kiggundu, 2016; Medina, 2010; Vermeire & Bruton, 2016), it is essential to work together with entrepreneurs to ensure their success. The thesis therefore encourages local authorities to engage constantly in a process of participatory democracy in order to listen and

better understand all stakeholders, specifically entrepreneurs (often referred to as private operators in Africa), before developing various national policies.

The research results also aim to reach development cooperation actors in Africa, whether they work specifically in waste management or in the promotion of entrepreneurship in general. Building development programmes or projects is not easy, especially for non-local organisations residing far from the reality of the local settings (De Sardan, 1995). The identification of needs and problems, and the construction of solutions, must be done in a bottom-up approach starting from local actors. Therefore, all the data collected from local actors for the purpose of this thesis is already in itself of great value to help development cooperation actors to better understand the context and, therefore, the problems or needs, but also the factors of success and failure in this context. As with local authorities, it is important that programmes built by development agencies or NGOs adopt a stance that combines local and international standards, without strictly following the rules of the dominant management model. In the waste management sector, the study will allow the various international and Belgian actors working this sector in Africa, such as Enabel or the NGO Autre Terre, to guide their development projects differently, for example as regards the support and training of entrepreneurs in the sector. In addition to capacity building, it would be useful to take ownership of the results of the thesis to show entrepreneurs the potential success and failure factors but also to develop training that allows them to improve their self-knowledge as entrepreneurs (mental processes), to learn to question their behaviour (self-knowledge) and the adequacy of their strategies to decode their context.

In this perspective, a presentation of the results of the thesis was carried out with the Africa project manager of the NGO Autre Terre, Benoit Naveau. Autre Terre provides support to various projects in Africa, particularly in the social economy and waste management sectors in Burkina Faso and Benin. Their partners are mainly local not-for-profit ventures or NGOs, one of which is one of the thesis case studies. The presentation made it possible to make various practical contributions, whether in waste management or in the sector of development cooperation and support for entrepreneurship more broadly.

First of all, the debates highlighted the very linear approach promoted by development cooperation programmes. Belgian NGOs, rooted in a Western context, most of the time manage their projects in the Global South by imposing pre-established, results-oriented frameworks on local partners. This approach is reinforced by the fact that Northern NGOs must also comply

with the linear schemes of the donors who subsidise them. This often creates coordination problems: there are tensions between the Western linear approach of the NGO in the North and the often circular approach of the NGO in the South (Kamdem, 2002; Mutabazi, 2006; Nizet & Pichault, 2007; Reinecke & Ansari, 2015). The latter is forced to conform to the management model of the Northern NGO, sometimes hindering entrepreneurial innovation and in the end, the results are not always those expected or determined at the outset. However, the results of the thesis may make Northern NGOs aware that a more circular approach, which would leave room for trial and error in a more iterative process, is potentially more appropriate to ensure ownership of projects by local partners and beneficiaries.

In addition, the study shows that entrepreneurs who are opportunity-oriented rather than problem-oriented are those who do best. It thus challenges the way NGOs operate, often identifying projects with their partners based on a view of problems rather than opportunities. It requires them to give more time, to make room for changes, and opportunities brought about by these changes, and to adapt budgets accordingly. This will not be easy given the perpetual race against time in the Western societies, the need to respond to calls for projects with deadlines, and to produce results in a given timeframe. But this seems necessary to achieve more successful programmes. It is therefore the entire conception of development cooperation programmes that is impacted by this research. In addition, the risk carried by linear approaches is to waste the skills of local entrepreneurs who receive support from the projects, particularly opportunistic entrepreneurs who would have to adopt a linear approach to enter the NGO's programme.

Several key questions also emerged from this presentation. Given that it is the 'autonomous' entrepreneurs who are most successful, those who are not dependent on the state or any other structures, do we really need NGOs to support entrepreneurship? In other words, what approach can the NGO take to encourage opportunistic entrepreneurship? Should NGOs still target not-for-profit partners, or should they turn to business incubators or private entrepreneurial ventures instead? Since the thesis has shown that commercial and social missions are intertwined in African entrepreneurship, even in for-profit ventures, it follows that supporting private actors can also produce results for collective well-being, particularly in sectors such as waste management that directly affect societal aspects (hygiene, health, employment of marginalised people, etc.). This will require NGOs to make a fundamental change in their mindset, in order to open up to potential private partners as well. It will also mean giving a little less attention to structural change objectives by focusing first on smaller-scale local innovation.

Another way of operating would be to offer coaching support, which would encourage local innovation, rather than a capacity-building approach that trains entrepreneurs in a Western management style. In this sense, it would seem appropriate to coach the entrepreneurs benefiting from the projects to adopt an 'agile', 'effectual' project approach, rather than a project approach that requires anticipating everything at the risk of failure (Sarasvathy, 2001). Agile methods, such as design thinking or lean start-up, are project management approaches that allow iterative and adaptative processes, building solutions as they happen, seeking feedback directly from beneficiaries to rethink the solution that will then be the closest to the need sought (Gibbons, 2016; Ries, 2015). They are opposed to a conventional linear approach, which first has to carry out a feasibility study or a market study before launching any project. The agile mode would encourage a more opportunistic behaviour, more adapted to the African circulatory management model.

5.4. Limitations and future avenues for research

The present doctoral research provides the basis for an interesting discussion on the characteristics of African entrepreneurs and the influence of the particular context in which they operate. Nevertheless, the study has its limitations and does not pretend to provide conclusions that will apply to any type of African entrepreneurship — this would be contrary to the critical posture adopted throughout the research. Below, I review the main limitations of the study and describe how each of them paves the way for future research in this area.

The sample is limited to eight case studies, although it was shown that these eight cases were representative of the population of entrepreneurs in the sector. Therefore, new empirical research could study whether the typology makes sense in other African settings, and with different levels of uncertainty. The waste management sector is not the only sector that has been shaped by imported development models; the agricultural sector, health, or education have been as well. The agricultural sector, which often employs the majority of the active population in Africa (90% in Burkina Faso), comprises a diversity of individual and collective entrepreneurs, not-for-profit and for-profit. This sector is also undergoing major changes in various ways, whether in terms of public subsidies, price volatility on international markets, or climatic hazards. In addition, studying entrepreneurs from different sectors in rural areas, in comparison with entrepreneurs in urban areas, would also enrich the typology. Recently, waste management has increasingly been developing in rural African municipalities and it would be interesting to see how entrepreneurs are mobilising resources to develop their businesses there.

The research focused mainly on mature entrepreneurs in the sector and did not examine the experiences of younger entrepreneurs. However, in an African context — where youth constitutes nearly half the population (Vermeire & Bruton, 2016; World Bank, n.d.) — youth entrepreneurship is often highlighted as a solution to unemployment (Beeka & Rimmington, 2011; Jacquemot, 2016). Consequently, these young people, often born after structural adjustment policies were introduced, have potentially developed social representations of the world around them and of their context that are different from those of their elders. They also increasingly grow up with technology, at least mobile technology. They are often ambitious, able to adapt easily and transgress established cultural conventions. They like teamwork and are generally open to the world, but do not want to be expatriated (Jacquemot, 2016). The roles of time and perception would be interesting to investigate with these new entrepreneurs. It could also shift entrepreneurial research towards how they mobilise resources and whether or not their strategies are successful.

Different sections of the thesis, in particular in Paper I, address informality but without studying it in depth. The informal aspect of entrepreneurship may be characterised at different levels. First, all the entrepreneurs studied were formerly informal or started in the informal sector. Second, given the current chaos in the waste management sector in Burkina Faso, they can be considered to be informal in the sense that they are no longer operating under an official contract to collect waste. They are therefore somehow relegated to the same level as competing entrepreneurs, who also have a legal status but never tendered for a contract.

Moreover, in Africa, the literature generally considers that close links exist between the activities of the informal sector and those of the social and solidarity economy. In its analysis of the informal sector, the literature opposes the accumulation of monetary capital to the accumulation of social capital, where the economic unit is no longer the venture but the social network, which brings social added value in complement to capital gains in terms of jobs and profits. This type of economy thus invests in social capital, in networks; trust and reciprocity are driving principles (Fall et al., 2004). Verhelst (1994) speaks moreover about ‘mixed economies’ in Africa, which underlines once again the complexity of the informal sector, involving both commercial and non-commercial resources. In this sense, several authors insist on the importance of the informal sector for achieving sustainable solutions in times of crisis. Indeed, it enables the construction of new rules, and new social and economic policies (Fall et al., 2004; Hillenkamp et al., 2013). Verhelst (1994) even refers to a massive informal sector in the South that ‘dictates more and more its standards’ to the formal private sector.

Thus, analysing entrepreneurship in relation to its various informal aspects could shed light on other types of resource mobilisation strategies and contribute to re-exploring existing entrepreneurship studies. In addition, since informal entrepreneurship is often poorly integrated into mainstream entrepreneurship studies, because it is considered invisible and to have a negligible impact on the economy (Verduyn et al., 2017), studying informal entrepreneurs will add to the burgeoning field of critical entrepreneurship studies.

Given the central role of entrepreneurs at the individual level in the case studies, the research has provided a better understanding of how collective and individual dimensions both make sense, while nuancing the idyllic view of the collective dimension in Africa. Indeed, it is very clear from the study that the collective aspect is no longer at the heart of venture management and, even, that it has often raised governance issues, as explained above. Such a debate is certainly not exhaustive but is an interesting starting point to continue the discussion in greater depth. From then on, future studies could further examine the role of the collective dimension in resource mobilisation and why it seems to have systematically disappeared in major case studies, particularly in ventures that are supposed to be managed collectively, such as not-for-profit ventures and thus the submissive entrepreneurs.

Religion, which is sometimes a source of self-confidence, sometimes a catalyst for solidarity, is strongly rooted in the daily lives of Africans and is often mentioned in the discourse of entrepreneurs (Kamdem, 2002; Vermeire & Bruton, 2016). Although partially studied in Paper II, religious beliefs have received limited attention in the current research and could be the subject of an in-depth study of the role they play for entrepreneurs and their activities.

The waste management sector in Burkina Faso is considered to be a ‘disputed’ sector. It would therefore be interesting to study how entrepreneurs justify their resource mobilisation practices by using the pragmatic sociology of Boltanski & Thévenot (1991). The justification theory developed by these authors considers the ability of actors to adjust to different social life situations. They seek to highlight the modes of equivalence, qualification, adjustment and justification by which actors produce agreements and coordinate their actions, i.e. how they create orders of justice and refer to them to denounce injustice (Boltanski & Thévenot, 1991; Nachi, 2006). According to these authors, people interact with each other in many worlds: the inspired world, the domestic world, the world of fame, the civic world, the market world, and the industrial world. Later, two other worlds were developed: the green world (Lafaye & Thévenot, 1993) and the connexionist world (Boltanski & Chiapello, 1999). On a daily basis,

everyone must face situations in different worlds, be able to recognise them and be able to adjust to them. Entrepreneurs, as individuals, also find themselves in some worlds more than in others, which explains how they justify their practices. Having the ability to identify the nature of a situation and to experience situations in different worlds can allow actors to avoid or escape a conflict. I found several studies using this theory in an African setting (André, 2009; Dupressoir, 2001; Kamdem, 2001a; Pichault & Nizet, 2013). It would be interesting to carry out in-depth analyses to see if the worlds developed by these authors in the Western context are identical in the African context — or if new worlds are emerging. To this end, it would make sense to use the different case studies in the dissertation because the data collected offer a wealth of justifications and the entrepreneurs' discourses rely on orders of worth.

This study has laid the foundations for understanding the resource mobilisation strategies of African entrepreneurs and will open up new avenues for refining the analysis of entrepreneurial behaviour in challenging contexts, where different cultures coexist. This research is a promising basis to both reconsider theories in entrepreneurship and, at a more practical and political level, to rethink the dominant economic models of development.

6. REFERENCES

- Ahi, S. C. (2016). Gestion des dépendances de grandes entreprises implantées en Côte d'Ivoire, à l'ère de la globalisation: Quelles stratégies de GRH ? *Revue Internationale de Gestion et d'économie*, 1(1), 49–75.
- Alexander, I. K., & Honig, B. (2016). Entrepreneurial Intentions: A Cultural Perspective. *Africa Journal of Management*, 2(3), 235–257.
- Aliaga-Isla, R., & Rialp, A. (2013). Systematic review of immigrant entrepreneurship literature: Previous findings and ways forward. *Entrepreneurship & Regional Development*, 25(9–10), 819–844.
- Alvarez, S. A., & Barney, J. B. (2007). Discovery and creation: Alternative theories of entrepreneurial action. *Strategic Entrepreneurship Journal*, 1(1–2), 11–26.
- Alvarez, S. A., & Barney, J. B. (2014). Entrepreneurial Opportunities and Poverty Alleviation. *Entrepreneurship Theory and Practice*, 38(1), 159–184.
- Alvarez, S. A., Barney, J. B., & Anderson, P. (2013). Forming and Exploiting Opportunities: The Implications of Discovery and Creation Processes for Entrepreneurial and Organizational Research. *Organization Science*, 24(1), 301–317.
- Anadon, M., & Guillemette, F. (2006). La recherche qualitative est-elle nécessairement inductive? *Actes Du Colloque de l'Association Pour La Recherche Qualitative (ARQ) Organisé Dans Le Cadre Du Congrès de l'ACFAS*. Presented at the Université McGill, Montréal. Université McGill, Montréal.
- Ancona, D. G., Okhuysen, G. A., & Perlow, L. A. (2001). Taking Time To Integrate Temporal Research. *Academy of Management Review*, 26(4), 512–529.
- André, G. (2009). L'éducation comme entreprise. Légitimations marchande, civique et culturelle de l'école bilingue au Burkina Faso. *Bulletin de l'APAD*, (29–30), 39–54.
- Arthurs, J. D., Busenitz, L. W., Hoskisson, R. E., & Johnson, R. A. (2009). Firm-Specific Human Capital and Governance in IPO Firms: Addressing Agency and Resource Dependence Concerns. *Entrepreneurship Theory and Practice*, 33(4), 845–865.
- Åsvoll, H. (2014). Abduction, deduction and induction: Can these concepts be used for an understanding of methodological processes in interpretative case studies? *International Journal of Qualitative Studies in Education*, 27(3), 289–307.
- Austin, J., Stevenson, H., & Wei-Skillern, J. (2006). Social and Commercial Entrepreneurship: Same, Different, or Both? *Entrepreneurship Theory and Practice*, 30(1), 1–22.
- Bacq, S., & Janssen, F. (2011). The multiple faces of social entrepreneurship: A review of definitional issues based on geographical and thematic criteria. *Entrepreneurship & Regional Development*, 23(5–6), 373–403.
- Baker, T., & Nelson, R. E. (2005). Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, 50(3), 329–366.
- Bandura, A. (1994). Self-Efficacy. In *Encyclopedia of human behavior* (V. S. Ramachandran, Vol. 4, pp. 71–81). New York: Academic Press.
- Barbosa, S. D., Gerhardt, M. W., & Kickul, J. R. (2007). The Role of Cognitive Style and Risk Preference on Entrepreneurial Self-Efficacy and Entrepreneurial Intentions. *Journal of Leadership & Organizational Studies*, 13(4), 86–104.
- BarNir, A., Watson, W. E., & Hutchins, H. M. (2011). Mediation and Moderated Mediation in the Relationship Among Role Models, Self-Efficacy, Entrepreneurial Career Intention, and Gender. *Journal of Applied Social Psychology*, 41(2), 270–297.
- Baron, C. (2007). Transfert du concept d'économie solidaire en Afrique francophone: Paradoxes et atouts. *Revue Tiers Monde*, 190(2), 325.
- Baron, R. A. (2004). The cognitive perspective: A valuable tool for answering entrepreneurship's basic "why" questions. *Journal of Business Venturing*, 19(2), 221–239.

- Baron, R. A. (2006). Opportunity recognition as pattern recognition: How entrepreneurs “connect the dots” to identify new business opportunities. *The Academy of Management Perspectives*, 20(1), 104–119.
- Becchetti, L., & Huybrechts, B. (2008). The Dynamics of Fair Trade as a Mixed-form Market. *Journal of Business Ethics*, 81(4), 733–750.
- Beeka, B. H., & Rimmington, M. (2011). Entrepreneurship as a career option for African youths. *Journal of Developmental Entrepreneurship*, 16(1), 145–164.
- Bessis, F., & Hillenkamp, I. (2013). *Economie sociale et solidaire et économie des conventions*. In Hierz D. (ed.), Lavillunière E. (ed.) *Vers une théorie de l'économie sociale et solidaire*, Bruxelles : De Boeck ; Larcier, 2013, p. 231-246.
- Beugré, C. D., & Offodile, O. F. (2001). Managing for organizational effectiveness in sub-Saharan Africa: A culture-fit model. *The International Journal of Human Resource Management*, 12(4), 535–550.
- Bird, B., & West, G. P. (2011). Time and entrepreneurship. *Entrepreneurship Theory & Practice*, 22(2), 5-9.
- Bloch, M. E. F. (1998). *How we think they think. Anthropological approaches to cognition, memory, and literacy*. Westview Press; 1 edition.
- Bluedorn, A. C. (2004). *The Human Organization of Time: Temporal Realities and Experiences*, by. Stanford, CA: Stanford University Press, 4.
- Boltanski, L., & Chiapello, E. (1999). *Le nouvel esprit du capitalisme*. Paris: Gallimard.
- Boltanski, L., & Thévenot, L. (1991). *De la justification: Les économies de la grandeur*. Paris: Gallimard.
- Bouju, J., & Ouattara, F. (2002). *Une anthropologie politique de la fange*. Conceptions culturelles, pratiques sociales et enjeux institutionnels de la propreté urbaine (Burkina Faso), A04 (Rapport final), Programme Gestion Durable des déchets et de l'assainissement urbain, PS/Eau, PDM, Shadyc Marseille, Grill-Ouagadougou.
- Boyd, N. G., & Vozikis, G. S. (1994). The influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, 18(4), 63–77.
- Brigham, K. H., De Castro, J. O., & Shepherd, D. A. (2007). A Person-Organization Fit Model of Owner-Managers' Cognitive Style and Organizational Demands. *Entrepreneurship Theory and Practice*, 31(1), 29–51.
- Brouwer, M. T. (2002). Weber, Schumpeter and Knight on entrepreneurship and economic development. *Journal of Evolutionary Economics*, 12(1), 83–105.
- Bruton, G. D., Ahlstrom, D., & Obloj, K. (2007). Entrepreneurship in Emerging Economies: Where Are We Today and Where Should the Research Go in the Future. *Entrepreneurship Theory and Practice*, 32(1), 1–14.
- Bruton, G. D., Ahlstrom, D., & Obloj, K. (2008). Entrepreneurship in Emerging Economies: Where Are We Today and Where Should the Research Go in the Future. *Entrepreneurship Theory and Practice*, 32(1), 1–14.
- Burger-Helmchen, T. (2012). *Entrepreneurship—Gender, geographies and social context*. Rijeka: InTech.
- Butler, J. E., Doktor, R., & Lins, F. A. (2010). Linking international entrepreneurship to uncertainty, opportunity discovery, and cognition. *Journal of International Entrepreneurship*, 8(2), 121–134.
- Casciaro, T., & Piskorski, M. J. (2005). Power imbalance, mutual dependence, and constraint absorption: A closer look at resource dependence theory. *Administrative Science Quarterly*, 50(2), 167–199.
- Chen, M.-J., & Miller, D. (2010). Toward an Ambicultural Approach to Management. *Academy of Management Perspectives*, 9.
- Choto, P., Tengeh, R. K., & Iwu, C. G. (2014). Daring to survive or to grow? The growth aspirations and challenges of survivalist entrepreneurs in South Africa. *Environmental Economics*, 5(4), 10.

- Davis, G. F., & Cobb, A. J. (2010). Chapter 2 Resource dependence theory: Past and future. In C. Bird Schoonhoven & F. Dobbin (Eds.), *Research in the Sociology of Organizations* (Vol. 28, pp. 21–42).
- De Klerk, S. (2015). The creative industries: An entrepreneurial bricolage perspective. *Management Decision*, 53(4), 828–842.
- De Sardan, J.-P. O. (1995). *Anthropologie et développement. Essai en socio-anthropologie de changement social* (Karthala).
- Defourny, J., Develtere, P., & Fonteneau, B. (2000). *Economie sociale au Nord et au Sud*. Bruxelles: De Boeck.
- Defourny, Jacques, & Develtere, P. (1999). The social economy: The worldwide making of a third sector. *Social Economy North and South*, 17–47.
- Defourny, Jacques, & Nyssens, M. (2012). *The EMES Approach of Social Enterprise in a Comparative Perspective*. EMES European Research Network 2012.
- Defourny, Jacques, & Nyssens, M. (2017a). *Économie sociale et solidaire. Socioéconomie du 3e secteur* (De Boeck Supérieur).
- Defourny, Jacques, & Nyssens, M. (2017b). Fundamentals for an International Typology of Social Enterprise Models. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 28(6), 2469–2497.
- Desa, G., & Basu, S. (2013). Optimization or Bricolage? Overcoming Resource Constraints in Global Social Entrepreneurship: Optimization Versus Bricolage in Global Social Entrepreneurship. *Strategic Entrepreneurship Journal*, 7(1), 26–49.
- Dessau-Soprin. (2000). *Schéma directeur de gestion des déchets dans la ville de Ouagadougou*.
- Devine, R. A., & Kiggundu, M. N. (2016). Entrepreneurship in Africa: Identifying the Frontier of Impactful Research. *Africa Journal of Management*, 2(3), 349–380.
- Di Domenico, M., Haugh, H., & Tracey, P. (2010). Social Bricolage: Theorizing Social Value Creation in Social Enterprises. *Entrepreneurship Theory and Practice*, 34(4), 681–703.
- Dialla, E. (2005, September). *Les groupements villageois: Un regard critique sur des organisations d'économie sociale en voie de disparition au Burkina Faso*. CAPES, Centre d'Analyse des Politiques Economiques et Sociales, Série Documents de Travail DT-CAPES N° 2005-24.
- Drees, J. M., & Heugens, P. P. M. A. R. (2013). Synthesizing and Extending Resource Dependence Theory: A Meta-Analysis. *Journal of Management*, 39(6), 1666–1698.
- Dubois, A., & Gadde, L.-E. (2002). Systematic combining: An abductive approach to case research. *Journal of Business Research*, 55(7), 553–560.
- Dufays, F. (2016). Embeddedness as a facilitator of sustainable entrepreneurship. In K. Nicolopoulou, M. Karataş-Özkan, F. Janssen, & J. Jermier (Eds.), *Sustainable entrepreneurship and innovation* (pp. 57–72). New York: Routledge.
- Duncan, R. B. (1972). Characteristics of Organizational Environments and Perceived Environmental Uncertainty. *Administrative Science Quarterly*, 17(3), 313.
- Dupressoir, S. (2001). Changements organisationnels et libéralisation La commercialisation du riz au Mali. *Économie rurale*, 262(1), 92–108.
- Duymedjian, R., & Rüling, C.-C. (2010). Towards a Foundation of Bricolage in Organization and Management Theory. *Organization Studies*, 31(2), 133–151.
- Ebrahim, A., Battilana, J., & Mair, J. (2014). The governance of social enterprises: Mission drift and accountability challenges in hybrid organizations. *Research in Organizational Behavior*, 34, 81–100.
- Edelman, L., & Yli-Renko, H. (2010). The Impact of Environment and Entrepreneurial Perceptions on Venture-Creation Efforts: Bridging the Discovery and Creation Views of Entrepreneurship. *Entrepreneurship Theory and Practice*, 34(5), 833–856.
- Eisenhardt, K. M. (1989). Building Theories from Case Study Research. *Academy of Management Review*, 14(4), 532–550.
- Ellis, S., & Fauré, Y.-A. (1995). *Entreprises et entrepreneurs africains*. Karthala Editions.

- Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, 62(1), 107–115.
- Fabian, J. (1999). Remembering the Other: Knowledge and recognition in the exploration of Central Africa. *Critical Inquiry*, 26(1), 49–69.
- Fall, A. S., Favreau, L., & Larose, G. (2004). *Le Sud... Et le Nord dans la mondialisation. Quelles alternatives ?*, Collection: Pratiques et politiques sociales et économiques, Presses de l'Université du Québec.
- Fall, A. S., & Guèye, C. (2003). Derem ak Ngerem: Le franc, la grâce et la reconnaissance Les ressorts de l'économie sociale et solidaire en Afrique de l'Ouest. *Revue du MAUSS*, 21(1), 97.
- Fisher, G. (2012). Effectuation, Causation, and Bricolage: A Behavioral Comparison of Emerging Theories in Entrepreneurship Research. *Entrepreneurship Theory and Practice*, 36(5), 1019–1051.
- Fournet, F., Meunier-Nikiema, A., & Salem, G. (2008). *Ouagadougou, 1850-2004: Une urbanisation différenciée*. Marseille: Institut de recherche pour le développement.
- Freel, M. S. (2005). Perceived Environmental Uncertainty and Innovation in Small Firms. *Small Business Economics*, 25(1), 49–64.
- George, G., Corbishley, C., Khayesi, J. N. O., Haas, M. R., & Tihanyi, L. (2016). Bringing Africa In: Promising Directions for Management Research. *Academy of Management Journal*, 59(2), 377–393.
- Gibbert, M., & Ruigrok, W. (2010). The “What” and “How” of Case Study Rigor: Three Strategies Based on Published Work. *Organizational Research Methods*, 13(4), 710–737.
- Gibbons, S. (2016, July 31). Design Thinking 101. Retrieved May 21, 2018, from Nielsen Norman Group website: <https://www.nngroup.com/articles/design-thinking/>
- Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking Qualitative Rigor in Inductive Research: Notes on the Gioia Methodology. *Organizational Research Methods*, 16(1), 15–31.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago, IL: Aldine.
- Granovetter, M. (1985). Economic Action and Social Structure: The Problem of Embeddedness. *American Journal of Sociology*, 91(3), 481–510.
- Gulati, R., & Sytch, M. (2007). Dependence Asymmetry and Joint Dependence in Interorganizational Relationships: Effects of Embeddedness on a Manufacturer's Performance in Procurement Relationships. *Administrative Science Quarterly*, 52(1), 32–69.
- Hall, E. T. (1992). *La Danse de la vie. Temps culturel, temps vécu*. Paris, Editions du Seuil.
- Harkins, J., & Forster-Holt, N. (2014). Resource Dependence and the Exits of Young Firms. *Entrepreneurship Research Journal*, 4(4).
- Hatch, M. J., & Cunliffe, A. L. (2009). *Théorie des organisations* (2ème). De Boeck Supérieur. Manager RH.
- Hayton, J. C., George, G., & Zahra, S. A. (2002). National culture and entrepreneurship: A review of behavioral research. *Entrepreneurship Theory and Practice*, 26(4), 33.
- Heinrich, C. J. (2000). Organizational form and performance: An empirical investigation of nonprofit and for-profit job-training service providers. *Journal of Policy Analysis and Management*, 233–261.
- Hilgers, M. (2009). *Une ethnographie à l'échelle de la ville—Urbanité, histoire et reconnaissance à Koudougou (Burkina Faso)* (Karthala).
- Hilgers, M. (2010). *Révoltes et oppositions dans un régime semi-autoritaire* (Karthala).
- Hillenkamp, I., Lapeyre, F., & Lemaître, A. (2013). Informal economy, vulnerabilities, and popular security-enhancing practices: Introduction. In I. Hillenkamp, F. Lapeyre, & A. Lemaître (Eds.), *Securing livelihoods: Informal economy practices and institutions* (pp. 1–22). Oxford : Oxford University Press.
- Hillman, A. J., Withers, M. C., & Collins, B. J. (2009). Resource Dependence Theory: A Review. *Journal of Management*, 35(6), 1404–1427.

- Hofstede, G. (1980). Culture and organizations. *International Studies of Management & Organization*, 10(4), 15–41.
- Hofstede, G. (1993). Cultural constraints in management theories. *The Academy of Management Executive*, 7(1), 81–94.
- Holt, D., & Littlewood, D. (2017). Waste Livelihoods Amongst the Poor - Through the Lens of Bricolage: Waste Livelihoods. *Business Strategy and the Environment*, 26(2), 253–264.
- Hussmanns, R. (2004). Measuring the informal economy: From employment in the informal sector to informal employment. *ILO*, (53), 38.
- Imas, J. M., Wilson, N., & Weston, A. (2012). Barefoot entrepreneurs. *Organization*, 19(5), 563–585.
- Jacquemot, P. (2016). *L’afrique des possibles. Les défis de l’emergence* (Karthala).
- Jaglin, S. (1995). *Gestion urbaine partagée à Ouagadougou: Pouvoirs et périphéries (1983-1991)* (Karthala).
- Janssen, F., Fayolle, A., & Wuillaume, A. (2018). Researching bricolage in social entrepreneurship. *Entrepreneurship & Regional Development*, 30(3–4), 450–470.
- Jauch, L. R., & Kraft, K. L. (1986). Strategic management of uncertainty. *Academy of Management Review*, 11(4), 777–790.
- Kamdem, E. (1994). Le temps dans l’organisation vers une approche plurielle et interculturelle. *Information Sur Les Sciences Sociales*, 33, 4, 683–707.
- Kamdem, E. (2001a). Circulation monétaire et construction du lien social en milieu urbain africain: Une modalité d’adaptation créative à la mondialisation. *Tiers-Monde*, 42(168), 755–772.
- Kamdem, E. (2001b). Entrepreneuriat et sciences sociales en Afrique—ProQuest. *Management International. Montréal*, 6(1), 16–32.
- Kamdem, E. (2002). *Management et interculturalité en Afrique. Expérience camerounaise* (L’Harmattan).
- Kamdem, E. (2016). *Innovation entrepreneuriale et développement durable en Afrique: Défis et opportunités*. Paris: Editions L’Harmattan.
- Keijzers, G. (2002). The transition to the sustainable enterprise. *Journal of Cleaner Production*, 10(4), 349–359.
- Kistruck, G. M., & Beamish, P. W. (2010). The Interplay of Form, Structure, and Embeddedness in Social Intrapreneurship. *Entrepreneurship Theory and Practice*, 34(4), 735–761.
- Knight, F. H. (1921). *Risk, uncertainty and profit*. Signalman Publishing.
- Kolk, A., & Rivera-Santos, M. (2018). The State of Research on Africa in Business and Management: Insights From a Systematic Review of Key International Journals. *Business & Society*, 57(3), 415–436.
- Krippendorff, K. (2018). *Content Analysis: An Introduction to Its Methodology*. SAGE Publications, Inc (Fourth Edition).
- Krishnan, B. C., Netemeyer, R. G., & Boles, J. S. (2002). Self-Efficacy, Competitiveness, and Effort as Antecedents of Salesperson performance. *Journal of Personal Selling & Sales Management*, 22(4), 285–295.
- Krueger, N. F. (2003). The cognitive psychology of entrepreneurship. In *Handbook of entrepreneurship research* (pp. 105–140). Springer.
- Kshetri, N. (2011). Institutional and Economic foundations of entrepreneurship in Africa: An overview. *Journal of Developmental Entrepreneurship*, 16(01), 9–35.
- Kuada, J. (2010). Culture and leadership in Africa: A conceptual model and research agenda. *African Journal of Economic and Management Studies*, 1(1), 9–24.
- Kuada, J. (2015). Entrepreneurship in Africa – a classificatory framework and a research agenda. *African Journal of Economic and Management Studies*, 6(2), 148–163.
- Lafaye, C., & Thévenot, L. (1993). Une justification écologique?: Conflits dans l’aménagement de la nature. *Revue Française de Sociologie*, 34(4), 495.
- Laleye, I., Panhuys, H., Verhelst, T., & Zaoual, A. (1996). *Organisations économiques et cultures africaines. De l’homo oeconomicus à l’homo situs*. Paris : L’Harmattan, Etudes africaines ;

- Bruxelles : Réseau Sud-Nord Cultures et développement, Université, recherche et développement, 5/6/7
- Laurent, P.-J. (1998). *Une association de développement en pays mossi: Le don comme ruse* (Karthala).
- Laurent, P.-J. (2012). Le « big man » local ou la « gestion coup d'État » de l'espace public, The local big man, or managing public space through the 'coup d'État.' *Politique africaine*, (80), 169–181.
- Lejeune, C. (2014). *Manuel d'analyse qualitative. Analyser sans compter ni classer*, Louvain-la-Neuve (De Boeck).
- Lévi-Strauss, C. (1962). *The savage mind*, Chicago: University of Chicago Press.
- Linna, P. (2013). Bricolage as a means of innovating in a resource-scarce environment: A study of innovator-entrepreneurs at the BoP. *Journal of Developmental Entrepreneurship*, 18(03).
- Lipshitz, R., & Strauss, O. (1997). Coping with Uncertainty: A Naturalistic Decision-Making Analysis. *Organizational Behavior and Human Decision Processes*, 69(2), 149–163.
- Madichie, N. O., Nkamnebe, A. D., & Idemobi, E. I. (2008). Cultural determinants of entrepreneurial emergence in a typical sub-Sahara African context. *Journal of Enterprising Communities: People and Places in the Global Economy*, 2(4), 285–299.
- Mair, J., & Marti, I. (2009). Entrepreneurship in and around institutional voids: A case study from Bangladesh. *Journal of Business Venturing*, 24(5), 419–435.
- Margiono, A., Zolin, R., & Chang, A. (2017). A typology of social venture business model configurations. *International Journal of Entrepreneurial Behavior & Research*.
- Marwell, N. P., & McInerney, P.-B. (2005). The Nonprofit/For-Profit Continuum: Theorizing the Dynamics of Mixed-Form Markets. *Nonprofit and Voluntary Sector Quarterly*, 34(1), 7–28.
- Mcgee, J. E., & Peterson, M. (2017). The Long-Term Impact of Entrepreneurial Self-Efficacy and Entrepreneurial Orientation on Venture Performance. *Journal of Small Business Management*.
- McGee, J. E., Peterson, M., Mueller, S. L., & Sequeira, J. M. (2009). Entrepreneurial Self-Efficacy: Refining the Measure. *Entrepreneurship Theory and Practice*, 33(4), 965–988.
- McMullen, J. S., & Shepherd, D. A. (2006). Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *Academy of Management Review*, 31(1), 132–152.
- Medina, M. (2010). *Solid wastes, poverty and the environment in developing country cities: Challenges and opportunities*, Working Paper No. 2010/23, UNU-WIDER, United Nations University.
- Meunier-Nikiema, A. (2007). *Géographie d'une ville au travers de la gestion des déchets Ouagadougou*, Mappemonde.
- Milliken, F. J. (1987). Three Types of Perceived Uncertainty about the Environment: State, Effect, and Response Uncertainty. *The Academy of Management Review*, 12(1), 133.
- Mitchell, R. K., Busenitz, L., Lant, T., McDougall, P. P., Morse, E. A., & Smith, J. B. (2002a). Toward a theory of entrepreneurial cognition: Rethinking the people side of entrepreneurship research. *Entrepreneurship Theory and Practice*, 27(2), 93–104.
- Mitchell, R. K., Busenitz, L. W., Bird, B., Marie Gaglio, C., McMullen, J. S., Morse, E. A., & Smith, J. B. (2007). The central question in entrepreneurial cognition research 2007. *Entrepreneurship Theory and Practice*, 31(1), 1–27.
- Mitchell, R. K., Smith, J. B., Morse, E. A., Seawright, K. W., Peredo, A. M., & McKenzie, B. (2002b). Are Entrepreneurial Cognitions Universal? Assessing Entrepreneurial Cognitions across Cultures. *Entrepreneurship Theory and Practice*, 26(4), 9–32.
- Mitchell-Weaver, C., & Manning, B. (1991). Public-private partnerships in third world development: A conceptual overview. *Studies in Comparative International Development (SCID)*, 26(4), 45–67.
- Monga, C., & Lin, J. Y. (2015). *The Oxford Handbook of Africa and Economics: Volume 1: Context and Concepts*. Oxford, United Kingdom: OUP Oxford.
- Mori, N., Randøy, T., & Golesorkhi, S. (2013). Determinants of Board Structure in Microfinance Institutions: Evidence from East Africa. *Journal of Emerging Market Finance*, 12(3), 323–365.

- Mosakowski, E., & Earley, P. C. (2000). A Selective Review of Time Assumptions in Strategy Research. *The Academy of Management Review*, 25(4), 796.
- Murdoch, I. (2010). Problèmes épistémologiques de la recherche qualitative. *AEGIS*, 6(4).
- Mutabazi, E. (2006). Face à la diversité des cultures et des modes de gestion: Le modèle circulatoire de management en Afrique. *Management & Avenir*, 10(4), 179.
- Nachi, M. (2006). *Introduction à la sociologie pragmatique*, Armand Colin, Cursus.
- Ndione, E. (1992). *Le don et le recours: Ressorts de l'économie urbaine* (Enda Editions), Vol. 151-152–153.
- Nienhüser, W. (2008). Resource dependence theory-How well does it explain behavior of organizations? *Management Revue*, 9–32.
- Nizet, J., & Pichault, F. (2007). *Les performances des organisations africaines. Pratiques de gestion en contexte incertain*. L'Harmattan, Conception et dynamique des organisations, Afrique subsaharienne. Gestion, management, entreprises.
- Nizet, J., & Van Dam, D. (2014a). Les évolutions des exploitations agricoles bio. *Économie Rurale*, (1), 165–181.
- Nizet, J., & Van Dam, D. (2014b). Les exploitations bios face à leurs contextes. Des stratégies diversifiées et interdépendantes. *Revue d'Études En Agriculture et Environnement*, 95(02), 177–202.
- Orlikowski, W. J., & Yates, J. (2002). It's About Time: Temporal Structuring in Organizations. *Organization Science*, 13(6), 684–700.
- Ouma, G. W. (2007). *Reducing resource dependence on government funding: The case of public universities in Kenya and South Africa*. University of Cape Town.
- Penrose, E. (1959). *The Theory of the Growth of the Firm*. OUP Oxford.
- Pfeffer, J., & Salancik, G. R. (1978). *The External Control of Organizations: A Resource Dependence Perspective*, New York: Harper and Row.
- Pfeffer, J., & Salancik, G. R. (2003). *The external control of organizations: A resource dependence perspective*, 2d ed. Stanford, CA: Stanford University Press.
- Pichault, F., & Nizet, J. (2013). Le management interculturel comme processus de traduction. Le cas d'une entreprise béninoise. *Management International/International Management/Gestión Internacional*, 17(4), 50–57.
- Platteau, J.-P., & Abraham, A. (2001). Imperfections des communautés rurales traditionnelles et développement participatif. *Revue d'économie du développement*, (1–2), 197–231.
- Post, J. (1999). The problems and potentials of privatising solid waste management in Kumasi, Ghana. *Habitat International*, 23(2), 201–215.
- PSRDO-CER (2010), Projet Stratégie de Réduction des Déchets de, Ouagadougou-Création d'Emplois et de Revenus par des, & actions de collecte, de tri et de valorisation. *Rapport de l'étude A.31: Réactualisation des données sur la problématique de la gestion des déchets dans la commune de Ouagadougou*.
- Qian, S., Ma, D., & Miao, C. (2016). Deciding to discover entrepreneurial opportunities: A multi-level investigation based on informational economics and resource dependence theory. *Journal of Developmental Entrepreneurship*, 21(02), 1650009.
- Reinecke, J., & Ansari, S. (2015). When Times Collide: Temporal Brokerage at the Intersection of Markets and Developments. *Academy of Management Journal*, 58(2), 618–648.
- Riedo, V., Kraiczy, N. D., & Hack, A. (2017). Applying Person-Environment Fit Theory to Identify Personality Differences between Prospective Social and Commercial Entrepreneurs: An Explorative Study. *Journal of Small Business Management*.
- Ries, E. (2015). *Lean Startup: Adoptez l'innovation continue*. Paris: PEARSON EDUCATION.
- Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, 26(2), 243–263.
- Sarasvathy, S. D. (2008). *Effectuation: Elements of entrepreneurial expertise*. Cheltenham: Edward Elgar.

- Senyard, J., Davidsson, P., & Steffens, P. (2010). The role of bricolage and resource constraints in high potential sustainability ventures. *Frontiers of Entrepreneurship Research 2010*.
- Servet, J.-M. (2007). Le principe de réciprocité chez Karl Polanyi, contribution à une définition de l'économie solidaire. *Revue Tiers Monde*, 190(2), 255.
- Severino, J.-M., & Hajdenberg, J. (2016). *Entreprenante Afrique*. Paris: Odile Jacob.
- Shepherd, D. A., & Patzelt, H. (2011). The new field of Sustainable entrepreneurship: Studying entrepreneurial action linking "What is to be sustained" with "What is to be developed." *Entrepreneurship Theory and Practice*, 35(1), 137–163.
- Slawinski, N., & Bansal, P. (2017). The Paradoxes of Time in Organizations. *The Oxford Handbook of Organizational Paradox*, 373.
- Sory, I. (2013). « OUAGA LA BELLE! » *Gestion des déchets solides à Ouagadougou: Enjeux politiques, jeux d'acteurs et inégalités environnementales*. Université Paris 1 Panthéon – Sorbonne.
- Sory, I., & Tallet, B. (2012). Des choix d'aménagement urbain porteurs d'inégalités sociales et environnementales: La gestion des déchets solides à Ouagadougou (Burkina Faso). *Flux*, (3), 79–89.
- Soulama, S. (2003). Le groupement villageois: Pertinence d'une organisation d'économie sociale au Burkina Faso. *Économie et Solidarités*, 34(1), 20.
- Strauss, A., & Corbin, J. M. (1997). *Grounded Theory in Practice*. SAGE.
- Tedmanson, D., Verduyn, K., Essers, C., & Gartner, W. B. (2012). Critical perspectives in entrepreneurship research. *Organization*, 19(5), 531–541.
- Thiéart, R.-A. (2014). *Méthodes de recherche en management*. Paris: Dunod.
- Thompson, J. D. (1967). *Organizations in Action: Social Science Bases of Administrative Theory*. Transaction Publishers.
- Timmermans, S., & Tavory, I. (2012). Theory Construction in Qualitative Research: From Grounded Theory to Abductive Analysis. *Sociological Theory*, 30(3), 167–186.
- Traoré, M. (2007). Analyse de la participation citoyenne autour de la gestion des déchets dans la ville de Ouagadougou (Burkina Faso). *ICOTEM, Ouagadougou*.
- Traoré, M. (2011). *Le "sale" et le "propre": Modes de gestion des déchets ménagers et logiques identitaires à Ouagadougou*. Université de Poitiers.
- Tsui, A. S. (2007). From Homogenization to Pluralism: International Management Research in the Academy and Beyond. *Academy of Management Journal*, 50(6), 1353–1364. <https://doi.org/10.5465/amj.2007.28166121>
- Unger, J. M., Keith, N., Hilling, C., Gielnik, M. M., & Frese, M. (2009). Deliberate practice among South African small business owners: Relationships with education, cognitive ability, knowledge, and success. *Journal of Occupational and Organizational Psychology*, 82(1), 21–44.
- Urban, B. (2010). Cognitions and motivations for new venture creation decisions: Linking expert scripts to self-efficacy, a South African study. *The International Journal of Human Resource Management*, 21(9), 1512–1530.
- Verduyn, K., Dey, P., & Tedmanson, D. (2017). A critical understanding of entrepreneurship. *Revue de l'Entrepreneuriat*, 16(1), 37.
- Verhelst, T. (1994). *Des racines pour l'avenir: Cultures et spiritualités dans un monde en feu* (L'Harmattan).
- Verheul, I., Uhlaner, L., & Thurik, R. (2005). Business accomplishments, gender and entrepreneurial self-image. *Journal of Business Venturing*, 20(4), 483–518.
- Vermeire, J. A. L., & Bruton, G. D. (2016). Entrepreneurial Opportunities and Poverty in Sub-Saharan Africa: A Review & Agenda for the Future. *Africa Journal of Management*, 2(3), 258–280.
- Villanueva, J., Van de Ven, A. H., & Sapienza, H. J. (2012). Resource mobilization in entrepreneurial firms. *Journal of Business Venturing*, 27(1), 19–30.
- Wadson, N. (2008). Cognitive Aspects of Entrepreneurship: Decision-Making and Attitudes to Risk. *The Oxford Handbook of Entrepreneurship*.
- Weick, K. E. (1995). *Sensemaking in organizations*. Thousand Oaks: Sage Publications.

- Welter, F. (2011). Contextualizing Entrepreneurship-Conceptual Challenges and Ways Forward. *Entrepreneurship Theory and Practice*, 35(1), 165–184.
- Welter, F., & Gartner, W. B. (2011). *A Research Agenda for Entrepreneurship and Context* (Edward Elgar Publishing Ltd).
- Welter, F., Xheneti, M., & Smallbone, D. (2018). Entrepreneurial resourcefulness in unstable institutional contexts: The example of European Union borderlands: Entrepreneurial resourcefulness in unstable institutional contexts: The example of European Union borderlands. *Strategic Entrepreneurship Journal*, 12(1), 23–53.
- Wilson, D. C. (2007). Development drivers for waste management. *Waste Management & Research*, 25(3), 198–207.
- Wilson, D., Rodic, L., Modak, P., Soos, R., Carpintero, A., Velis, K., ... Simonett, O. (2015). *Global Waste Management Outlook*. Retrieved from http://eprints.whiterose.ac.uk/99773/1/GWMO_report.pdf
- Wilson, F., Kickul, J., & Marlino, D. (2007). Gender, entrepreneurial self-efficacy, and entrepreneurial career intentions: Implications for entrepreneurship education. *Entrepreneurship Theory and Practice*, 31(3), 387–406.
- World Bank. (n.d.). World Bank Open Data | Data. Retrieved April 6, 2019, from <https://data.worldbank.org/>
- Yaméogo, K., & Wong, A. (2011). *La Responsabilites societales des entreprises en Afrique francophone*. Charles Léopold Mayer.
- Yin, R. K. (1981). The Case Study as a Serious Research Strategy. *Science Communication*, 3(1), 97–114.
- Yin, R. K. (2003). *Case Study Research: Design and Methods*. SAGE Publications.
- Zachary, M. A., Gianiodis, P. T., Payne, G. T., & Markman, G. D. (2015). Entry Timing: Enduring Lessons and Future Directions. *Journal of Management*, 41(5), 1388–1415.
- Zahra, S. A., Gedajlovic, E., Neubaum, D. O., & Shulman, J. M. (2009). A typology of social entrepreneurs: Motives, search processes and ethical challenges. *Journal of Business Venturing*, 24(5), 519–532.

Appendix. Typology of data collection

I. Interviews

	Ventures	Waste activity	Informant	Position	T0	T1	Time frame
8 CASE STUDIES	NFP1	Waste collection	INFORMANT 1	President/entrepreneur of NFP/President of EIG A president of another NFP in the same EIG was also present in 2014	X	X	00:52 02:37
			INFORMANT 2	Collection agent		X	00:33
			INFORMANT 3	Waste collector		X	00:20
	NFP2	Waste collection	INFORMANT 4	President/entrepreneur of NFP Other members of the same EIG present in 2014: <ul style="list-style-type: none"> • Collection agent of NFP X • Collection agent of NFP Y • Member of NFP Z • President of NFP W 	X	X	00:54 01:08
	NFP3	Waste collection Sorting centres	INFORMANT 5	President/entrepreneur of NFP/President of EIG	X	X	00:43 01:09
			INFORMANT group	8 presidents and members of 8 NFPs of the same EIG		X	00:52

	Ventures	Waste activity	Informant	Position	T0	T1	Time frame	
	NFP4	Informal waste collection	INFORMANT 6	General coordinator of NFP Also present: Communication Manager			00:42	
			INFORMANT 7		X	X	01:17	
	FP1	Waste collection	INFORMANT 8	Entrepreneur/Coordinator of FP waste management federation	X	X	01:19 02:14	
			INFORMANT 9		Secretary and accountant		X	00:25
			INFORMANT 10		Waste collector		X	00:17
	FP2	Waste collection	INFORMANT 11	Entrepreneur	X	X	01:42 01:49	
FP3	Waste collection	INFORMANT 12	Entrepreneur/President of EIG	X	X	01:14 02:00		
FP4	Waste collection	INFORMANT 13	Entrepreneur/Coordinator of NFP waste management federation		X	01:33		
OTHER	FP5	Waste collection	INFORMANT 14	Entrepreneur	X		00:20	
	NFP-VAL1	Waste recycling - compost + informal waste collection	INFORMANT 15	President/entrepreneur of NFP/President of a new EIG	X	X	01:00 01:45	

Ventures	Waste activity	Informant	Position	T0	T1	Time frame
NFP-VAL2	Waste recycling - plastic + informal waste collection	INFORMANT 16	President/entrepreneur of NFP	X		01:07
NFP-VAL3	Waste recycling - paper + informal waste collection	INFORMANT 17	President/entrepreneur of NFP	X		00:28
NFP-VAL4	Waste recycling (final landfill) - compost Formal	INFORMANT 18	Secretary of NFP (founded by the EU/municipality project)	X		00:30
NFP-VAL5	Waste recycling (final landfill) - plastic Formal	INFORMANT 19	President of NFP (founded by the NGO/municipality project)	X		00:39
FP-VAL1	Waste recycling - plastic	INFORMANT 20	Entrepreneur	X		00:47
ETU-VAL1	Waste recycling	INFORMANT 21	Student-entrepreneur at 2ie	X		00:44

	Ventures	Waste activity	Informant	Position	T0	T1	Time frame
		- plastic		<i>Tiles made of recycled plastic</i>			
	ETU-VAL2	Waste recycling - paper	INFORMANT 22	Student-entrepreneur at 2ie <i>Paper bags</i>	X		00:35
INSTITUTIONS	Sustainable Development Department	Public authorities	INFORMANT 23	Director	X		00:36
	Waste Treatment and Recovery Centre	Public authorities	INFORMANT 24	In charge of the landfill	X		00:23
	Sustainable Development Department	Public authorities	INFORMANT 25	In charge of waste management department	X	X	00:38 00:15
	EU	Development cooperation	INFORMANT 26	Project manager 'Stratégie de réduction des déchets de Ouagadougou - création d'emplois et de revenus par des actions de collecte, de tri et de valorisation' (PSRDO/CER)	X		00:52
	CEFREPADE Centre Francophone de Recherche Partenariale sur l'Assainissement, les Déchets et l'Environnement	Network in the waste management field	INFORMANT 27 INFORMANT 28	<i>Cooperant</i> Student		X	02:00
	CEAS Burkina	NGO	INFORMANT 29	Project manager	X	X	00:58

Ventures	Waste activity	Informant	Position	T0	T1	Time frame
						00:20
Autre Terre	NGO	INFORMANT 30 INFORMANT 31	NGO national coordinator Monitoring agent	X		01:07
University of Ouaga - UO Economic & management science	Academic	INFORMANT 32	Dr J.B. Zett Dr T. Kaboré: Vice-director of the Public, Social and Solidarity Economy Laboratory (LEPSS)	X	X	02:00 01:00
2ie	Academic	INFORMANT 33	Dr Maïmouna Traoré – Sociologist	X		00:45
University of Ouaga UO	Academic	INFORMANT 34	Dr Issa Sory – Political and social geography	X		01:30
TOTAL	Varied types of actor	+35 actors	Different positions		44 interviews	44.08

II. Participant observation

Ventures	Scope	Timing
NFP1	Participation in household waste collection in the area	1 half-day
	Observation of payment recovery in a collection area	1 hour
NFP2	Collection and transport to the transit centre and informal sorting	1 half-day
	Observation of formal sorting at the sorting centre	2 half-days
NFP3	Participation in an EIG meeting with 7 of the EIG's new entrants	1 half-day
NFP4	Observation of activity on site	1 half-day
FP1	Observation of the storage work at the collection centre and in the company yard	1 half-day
FP2	Observation of collection and informal sorting	1 half day
FP4	Observation of work at the office	1 half-day
NFP-VAL2	Visit of the site, viewing of products and explanations about production formulas	2 hours
NFP-VAL3	Visit of the activity and viewing of prototypes	2 hours
FP-VAL1	Visit of the site: various activities connected with plastic sorting, crushing, drying; explanations	2 hours
Final landfill	Visit of the site and the 2 NFP recycling units	1 half-day
TOTAL		+43 hours

III. Documents

	Titre	Code	# Pages
Legal texts	Loi N°005/97/ADP portant sur le code de l'environnement au Burkina Faso de 1997	LEG-1	23
	Loi N°006-2013/AN du 02 avril 2013 portant sur le code de l'environnement	LEG-2	58
	Une version officielle de 2002 du Schéma Directeur de Gestion des Déchets de Ouagadougou, Ousmane Paré, Ministère des infrastructures, de l'Habitat et de l'Urbanisme	LEG-3	200
	Le communiqué officiel de la Direction du Développement Durable (DDD – Mairie) avec les zones de collectes concédées à quels GIE et PME, Mars 2005	LEG-4	3
	Annexe 2 : relecture de l'arrêté 2003-043 portant création et concession de zones de collecte des déchets solides ménagers et assimilés dans la ville de Ouagadougou	LEG-5	7
	Annexe 3 : relecture de l'arrête 2008-150 portant interdiction de déverser des déchets sur le territoire de la Commune de Ouagadougou	LEG-6	4
	Annexe 4 : Contrat d'attribution des zones de collecte entre la Mairie et les GIE	LEG-7	3
	Annexe 5 : Contrat de service de collecte de déchets entre les ménages et les GIE	LEG-8	3
	Annexe 6 : Contrat de travail entre les associations et les femmes employées	LEG-9	2
	Annexe 7 : Contrat d'exploitation des centres de tri entre la Mairie et les GIE	LEG-10	3
	Annexe 8 : Contrat de service entre les centres de tri et les unités de valorisation	LEG-11	2
	Annexe 9 : Contrat de service de transport entre la Mairie et une entreprise privée	LEG-12	5
	Annexe 10 : Contrat entre la Mairie et des entreprises privées pour l'exploitation des unités de valorisation	LEG-13	2
	Annexe 11 : Proposition d'un complément de cahier de charges	LEG-14	7

	Loi N° 055-2004/AN portant code général des collectivités territoriales au Burkina Faso	LEG-15	72
	<i>Official documents or amendment proposals on dividing Ouagadougou into solid household waste collection areas, the DDD and the CAVAD and CGED, September 2014</i>	LEG-16	
	<i>A map of the new division of the city of Ouagadougou with a drawing of the proposed lots for the second call for tenders, October 2011</i>	LEG-17	
Documents of case studies	Le document d'information et de souscription à l'abonnement destinés aux ménages de la zone de l'entreprise SILO	CAS-1	
	Le modèle de reçu pour les ménages lors du recouvrement des redevances mensuelles de SILO	CAS-2	
	Le modèle de contrat de sous-traitance ECONFA	CAS-3	
	Contrats de concession de zone entre la Mairie l'entreprise ECONFA	CAS-4	
	Le dépliant de présentation de l'entreprise SILO	CAS-5	
	Un rapport interne du GIE/SDS de mars 2006	CAS-6	
	Le dépliant de présentation de l'association AJFSBF	CAS-7	
Reports and presentations	Rapport intermédiaire « Projet d'amélioration des conditions de vie urbaine – PACVU – SDGD de la ville de Ouagadougou – Evaluation des impacts environnementaux du CET de Ouagadougou », Dessau-Soprin, 1999	RAP-1	
	Le document de présentation du projet d'appui à la gestion des déchets municipaux des villes secondaires du CEAS et Ingénieurs sans Frontières	RAP-2	
	Plusieurs rapports des études menées dans le cadre du « Projet Stratégie de Réduction des Déchets de Ouagadougou Création d'Emplois et de Revenus par des actions de collecte, de tri et de valorisation (PSRDO-CER) » financé par l'UE. Rapports menés par les différents partenaires publics et privés (réseaux, ong, etc.). Dates: 2010, 2011, 2012	RAP-3	+ - 300
	Des rapports sur le secteur informel dans les déchets à préciser	RAP-4	
	Rapport d'activités 2013, DDD	RAP-5	53

	Rapport de la DDD, novembre 2013, Cissé (directeur)	RAP-6	6
	Des rapports des Nations Unies sur la gestion des déchets dans les villes du monde	RAP-7	
	AFD (2001) Revue comparative des modes de gestion des déchets urbains adoptés dans les pays de la zone ZSP, note de synthèse	RAP-8	24
	Rapport de la mission d'évaluation effectuée au Burkina Faso du 2 décembre au 12 décembre 2007 sur la problématique déchets, CEFREPADE	RAP-9	30
	PowerPoint presentations of DDD (Direction du Développement Durable de la Mairie de Ouagadougou)	PPT1	
	Gestion des déchets solides urbains : cas de la commune de Ouagadougou (Atelier de partage d'expérience sur la gestion des déchets ménagers et réduction et/ou suppression des sachets plastiques), Sabo Souleymane (DDD), Banfora, 2013	PPT2	49
Academic (studies, PhD & graduation theses)	PhD thesis, Issa Sory : « OUAGA LA BELLE ! » Gestion des déchets solides à Ouagadougou : enjeux politiques, jeux d'acteurs et inégalités environnementales, 2013		355
	PhD thesis, Maïmouna Traoré : Le "sale" et le "propre" : modes de gestion des déchets ménagers et logiques identitaires à Ouagadougou, 2012		381
	Bouju & Ouattara (2002) Une anthropologie politique de la fange. Conceptions culturelles, pratiques sociales et enjeux institutionnels de la propreté urbaine à Ouagadougou et Bobo-Dioulasso (Burkina Faso)		223
	Meunier-Nikiema (2007) Géographie d'une ville à travers la gestion des déchets Ouagadougou, Mappemonde (2007.3)		15
	Bayili P., (2000) Structures de précollecte des déchets à Ouaga et Cotonou : Comment consolider leur rôle et place dans les plans de gestion des déchets qui se mettent en place, Note de capitalisation du programme de recherche sur les déchets solides dans les villes africaines (1996 –1999), Alter-Ego, partenariat pour le développement		27
	Tall-Karembega K., (2002), Pouvoir des femmes et gestion de l'environnement, Programme de gestion des transformations sociales, Découvertes Burkina (cas d'association Laguem Yam)		22

	Scheinberg, A., Simpson, M., Gupt Y. et al. (2010): Economic Aspects of the Informal Sector in Solid Waste Management. GTZ and CWG, Eschborn, Germany (summary)		36
	Graduation thesis: Nshimirimana F., (2010), Caractérisation des déchets solides ménagers : cas de l'arrondissement de Sig-Noghin, 2ie		76
	Graduation thesis: Kaboré S.G., (2009), Les représentations sociales du déchet dans la ville de Ouagadougou: le cas des déchets plastiques, UO		100