

**Perceiving and accessing resources in uncertain environments:**

**Insights from waste collection ventures in Burkina Faso**

DAL FIOR Catherine (corresponding author)

ICHEC Brussels Management School

[catherine.dalfior@ichec.be](mailto:catherine.dalfior@ichec.be)

HUYBRECHTS Benjamin

IESEG School of Management, Univ. Lille, CNRS, UMR 9221 – LEM (Lille Economie Management)

[b.huybrechts@ieseg.fr](mailto:b.huybrechts@ieseg.fr)

DUFAYS Frédéric

HEC Liège - Management School of the University of Liège, KU Leuven

[frederic.dufays@uliege.be](mailto:frederic.dufays@uliege.be)

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## **Abstract**

- Purpose

This article explores how waste collection venture founders in an uncertain sub-Saharan African environment perceive and access resources. More particularly, it investigates why, even in a similar context, different types of resource-mobilizing practices can be observed among venture founders and how these different practices can be related to founders' diverging perceptions of resource accessibility.

- Design/methodology/approach

The study compares seven waste collection ventures in Ouagadougou, Burkina Faso, a particularly uncertain market with shifting public regulation. The comparative case study analysis relies on interviews with venture founders, staff members and sector experts, as well as observations and archival data.

- Findings

The findings suggest that the diverse approaches to resource accessibility can be associated with different ways in which venture founders perceive three key dimensions: environmental uncertainty (which is not necessarily seen as negative), the venture's mission (for-profit or not-for-profit) and the founders' self-perceptions. Three "perception-practice" patterns are identified, which illuminate different avenues for waste collection venture founders to access resources and position themselves in between local traditions and international influences.

- Research implications

The findings contribute to refining the understanding of the links between entrepreneurial perceptions and resource access in uncertain environments, and further illuminate the diversity and complexity of entrepreneurial approaches in Sub-Saharan Africa.

- Practical implications

The findings of this paper may help waste management entrepreneurs better leverage resources and deal with uncertainty. Moreover, the paper includes recommendations to public authorities in charge of waste policy at the local, national and international levels, urging them to take the diversity of entrepreneurial approaches into consideration and formulate tailored policies to support waste entrepreneurs in accessing the resources they need.

- Social implications

Informing the diversity of waste management practices and their effectiveness directly contributes to supporting small venture development and dealing with pollution, thereby addressing, respectively, Sustainable Development Goals 8 (“Economic development and growth”) and 15 (“Life on land”).

- Originality

As entrepreneurship in sub-Saharan Africa remains relatively underexplored in comparison with Western contexts, in particular from the perspective of entrepreneurial perceptions, the originality of this article is to connect resource access practices with the different perceptions unfolding in a similar context, thereby shedding light on how such diversity informs the understanding of entrepreneurial practices in uncertain contexts.

Keywords: entrepreneurial perceptions, resource access, uncertainty, sub-Saharan Africa

## Introduction

This article examines how founders of waste collection ventures in an uncertain, sub-Saharan African environment perceive and access resources. While a wealth of literature explores how entrepreneurs access resources in uncertain environments (e.g., Butler *et al.*, 2010; McMullen and Shepherd, 2006; Welter *et al.*, 2018), empirical studies have until recently mainly focused on “developed”, Western contexts (Bruton *et al.*, 2008). These assume relatively stable regulatory environments, therefore considering uncertainty primarily at the market level. Lately, research on entrepreneurship in a context of permanent uncertainty has gained momentum with an increasing number of articles involving – mainly English-speaking – sub-Saharan countries as empirical setting (Akinyoade *et al.*, 2017; Beugré, 2017; Kabongo *et al.*, 2024; Littlewood *et al.*, 2022). Many authors show that accessing resources in the complex and diversified environments of sub-Saharan Africa is a challenge for entrepreneurs, especially for small-scale ventures (Busch and Barkema, 2021; Ciambotti *et al.*, 2023; Devine and Kiggundu, 2016; Kolk and Rivera-Santos, 2018). However, extant research on resource access by entrepreneurs in sub-Saharan Africa and, more broadly, in developing countries, has focused on the objective conditions of such access – i.e., what resources are present in the environment and what strategies entrepreneurs develop to secure their access to critical resources (Bruton *et al.*, 2008; Ciambotti and Pedrini, 2019; Kolk and Rivera-Santos, 2018; Olagboye and Okafor, 2022). By contrast, this paper focuses on the less documented subjective nature of this process, i.e., how venture founders in highly uncertain contexts perceive resources and their own capacities to access them.

Entrepreneurial cognition (Aliaga-Isla, 2016; Baron, 2004; Brigham *et al.*, 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). In this article, the authors suggest that, to document the diversity of resource-mobilizing practices among sub-Saharan African ventures, it is important to extend the focus beyond the study of objective conditions to explore the diverse perceptions that underlie these practices. Therefore, the paper asks: *how do entrepreneurial perceptions help understand the diverse avenues through which waste collection venture founders access resources in an uncertain environment?*

This study examines the waste management sector in Ouagadougou (Burkina Faso), which is characterized by a very high level of regulatory uncertainty. Regulatory framework has been continuously changing and is subject to much ambiguity, persistent rumours, ethical challenges and delayed reforms. Since the 1990s, several ventures have emerged to develop waste collection activities despite the unstable and ambiguous environment. To unveil the role played by entrepreneurial perceptions in the diverse approaches to resource access, the article focusses on the perception of resource accessibility and identifies three levels of perception that appear particularly salient: the perception of environmental uncertainty (macro level), the perception of the venture's mission (meso level), and the founder's self-perception (micro level). Based on these findings, three possible "perception-practice" patterns are identified, each of which features a specific relationship between entrepreneurial perception and resource access practice: "submissive", "oscillator", and "opportunistic". Both submissive and oscillator founders 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 founders 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.

By documenting why resource access practices vary across entrepreneurs evolving in a highly uncertain context (Bruton *et al.*, 2008; Kolk and Rivera-Santos, 2018), this article contributes to the literature in two ways. First, the findings shed new light on the similarities and differences between different vehicles to conduct venturing, fine-graining the understanding of the “nonprofit – for-profit” divide beyond conventional Western-based approaches (Becchetti and Huybrechts, 2008; Marwell and McInerney, 2005). Second, the paper contributes to enriching understanding of the diversity and complexity of entrepreneurial approaches in the sub-Saharan African context, where economic, social and environmental goals are largely intertwined (Littlewood and Holt, 2015; Rivera-Santos *et al.*, 2014). Such diversity is anchored in the richness of sub-Saharan African entrepreneurial practices, located in between local, traditional economic practices and international influences.

### **Theoretical background**

Uncertainty represents a challenge for entrepreneurs, in particular when environmental conditions display ambiguity, instability and institutional voids (Bylund and McCaffrey, 2017; Kolade *et al.*, 2022; Mair and Marti, 2009). Research on entrepreneurship and uncertainty is abundant (Townsend *et al.*, 2018) but has largely focused on market uncertainty at the early stages of venture creation (Brouwer, 2002; Butler *et al.*, 2010; Freel, 2005). Beyond objective conditions, uncertainty can be understood as a subjective experience, in that “different individuals may experience different doubts in identical situations” (Campbell, 2020; McMullen and Shepherd, 2006, p. 135). In particular, entrepreneurs’ ability to operate in uncertain environments depends on the level of uncertainty they perceive (Butler *et al.*, 2010). In other words, entrepreneurs make decisions (Zayadin *et al.*, 2023) and act (Cowden *et al.*, 2024) in different ways in similar contexts, depending on the type and level of perceived uncertainty (Packard *et al.*, 2017).

Such subjective experience of uncertainty resonates with research that emphasizes the role of cognition, including perceptions, in driving entrepreneurial actions (Campbell, 2020; Douglas, 2009; Krueger, 2003). Mitchell and colleagues defined entrepreneurial cognition as “the knowledge structures that people use to make assessments, judgments, or decisions involving opportunity evaluation, venture creation, and growth” (2002, p. 97). Inviting scholars “to further develop the link ‘thinking doing’ in entrepreneurship research” (2007, p. 2) to better anchor the role of the individual in the entrepreneurial process, they pointed out the role of mental models to assemble the necessary resources for entrepreneurs to create and develop ventures. Studying the link between founders’ cognition and their environment might explain why some founders behave differently from others and achieve more or less success (Baron, 2004) in a given situation (Brigham *et al.*, 2007; Campbell, 2020).

Therefore, documenting the diverse types of entrepreneurial perceptions is important to understand the variation in resource access practices in given contexts. This is particularly relevant in highly uncertain contexts such as those facing sub-Saharan African entrepreneurs (Hansen *et al.*, 2018; Kolade *et al.*, 2022). Indeed, the cultural perspectives of venture founders have been shown to be more diversified in Africa compared with Western countries in which most entrepreneurial theories are embedded (Beugré and Offodile, 2001; Bruton *et al.*, 2008; George *et al.*, 2016; Kamdem, 2002; Kolk and Rivera-Santos, 2018; Mutabazi, 2006), leading to rich diversity of approaches to accessing resources (Ciambotti and Pedrini, 2019; Desa and Basu, 2013; Hansen *et al.*, 2018; Holt and Littlewood, 2017; Khayesi *et al.*, 2014; Reypens *et al.*, 2021).

Sub-Saharan African entrepreneurs continue to face numerous challenges in accessing critical resources such as finance or infrastructure because of political instability, corruption and lack of business support ecosystems (Beugré, 2017; Hansen *et al.*, 2018; Kansheba, 2020; Kolade *et*

*al.*, 2022). Despite improving economic conditions, basic needs in these countries are still not being met (Beugré, 2017), whether in terms of access to food, drinking water, energy or education. This means that sub-Saharan African entrepreneurs adapt to the constraints of their environment (Hansen *et al.*, 2018; Kabongo *et al.*, 2024), navigating opportunities and challenges (Beugré, 2017; Kabongo *et al.*, 2024). The way in which entrepreneurs perceive their context is therefore critical to better understand how entrepreneurs mobilise resources in uncertain sub-Saharan contexts (Littlewood *et al.*, 2022). As such, mental processes have been shown to be culture-dependent (Alexander and Honig, 2016; Hayton *et al.*, 2002; Mitchell, Smith, *et al.*, 2002), and research in anthropology and sociology has documented how perceptions in the African context are distinct from and more varied than those in developed countries (Bloch, 1998; Fabian, 1999). Therefore, the sub-Saharan African setting may help to unveil new patterns of relationships between entrepreneurial cognition and practices to access resources, contributing to documenting entrepreneurial perceptions in under-studied contexts (Achtenhagen and Brundin, 2016; Olagboye and Okafor, 2022; Unger *et al.*, 2009; Urban, 2010).

## **Research context and methods**

### *Research context*

The waste management sector in Ouagadougou was chosen 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 —Burkina Faso in particular — have undergone increasing urbanisation due to a massive rural exodus. In the context of globalisation, sub-Saharan African cities are facing a demographic explosion and, therefore, an increase in formerly unknown types of waste (Bouju and Ouattara, 2002; Traoré, 2011). The waste



management sector in sub-Saharan Africa has long been relegated to the background by governments. This has been conducive to the development of entrepreneurial collection and recycling activities, which are largely informal in low-income countries (Holt and Littlewood, 2017; Oteng-Ababio, 2010; Post, 1999; Rogerson, 2001; Wilson *et al.*, 2012). Entrepreneurs in the sector range from individuals who have no other employment opportunities to community-based enterprises that mobilise to clean up their cities and neighbourhoods, and to provide marginalised people with employment (Wilson *et al.*, 2017).

Since Burkina Faso's independence in 1960, the landscape of waste management in the country and, particularly, in its capital, has undergone several transformations. Initially managed by the government and characterized by much informal activity alongside (Galdino *et al.*, 2018; Holt and Littlewood, 2017), the sector was opened up in the 1990s to private entrepreneurs, both not-for-profit and for-profit (Fournet *et al.*, 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 privatize public services deemed inefficient (Kolade *et al.*, 2022). The plan consisted of a public-private partnership between the decentralized service of the Municipality of Ouagadougou and several waste collection ventures. Under this partnership, a tender was launched in 2003 that obliged waste collection ventures to enter into economic interest groups (EIGs) 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 their headquarters' location. Within the EIGs, waste collection entrepreneurs are autonomous: they pick up household waste within their areas and directly recover payment from their customers (households). They do not receive any subsidies

from the municipality and tend to create various pricing levels according to households' incomes.

Since the launch of the master plan, several problems have undermined the sector's functioning. 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 have not been equitably distributed among the EIGs, thus generating profitability imbalances (e.g. peripheral areas are less profitable because their population is less wealthy) (Sory and Tallet, 2012). Moreover, the municipality has failed to engage in regulation and public awareness of waste management, so that the mandatory subscription of households to a collection service has never been implemented. The situation has worsened since the political crisis of 2014, which forced the country's president to resign after 27 years in power. 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).

#### *Data collection and analysis*

To unveil the diverse perceptions of waste collection venture founders and the way in which they shape diverse mobilisation practices in this specific uncertain sub-Saharan context, the authors carried out longitudinal comparative case studies, which are suitable for exploring the underlying drivers of an empirically observed phenomenon (Yin, 2009). The data collection took place over two main periods. First, the authors conducted a study in 2014 (before the political crisis), interviewing 35 actors in the waste management sector in Ouagadougou, both

waste collection entrepreneurs and stakeholders such as municipality officials and recyclers. To identify the case studies, the focus was laid on waste collection and not recycling ventures because only the former are subject to regulatory constraints in the context of public-private partnerships. Yet, recycling entrepreneurs were interviewed as stakeholders that helped gain better understanding of the sector's complexity. In addition to providing useful contextual information, these interviews enabled the authors to identify nine waste collection ventures leading an EIG. During this first data collection phase, the founders of seven out of these nine ventures accepted to take part in in-depth interviews, providing a relevant picture of the diversity of waste collection ventures. After the political crisis, in 2015, the authors re-interviewed the seven ventures during the second field research stage, including their founders as well as nineteen staff members (e.g., secretary/accountant, financial recovery agent, waste collectors, and other employees). In 2017, the authors conducted three follow-up interviews which enabled them to refine certain insights. The follow-up interviews did not unveil any particular changes with regard to the data collection in 2015. Table 1 summarizes the main information for the seven 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 seven case studies, the authors followed the employed waste collectors and conducted several informal discussions, which were summarized in daily notes. The authors participated in two meetings of two EIGs, the contents of which were also added to the daily notes. The participant observation helped to better understand the link between uncertainty perceptions and resource access practices. More specifically, the authors observed how the founding entrepreneurs gathered the required resources, how they managed the collection activity, and how they dealt with their employees. It also made it possible to better

interpret the verbal as the non-verbal behaviour, an important element when researching perceptions (Hall, 1992). Moreover, 44 relevant documents were analysed, 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, increasing the validity of the findings (Yin, 2003).

**Table 1: Overview of case studies**

	<b>NFP1</b>	<b>NFP2</b>	<b>NFP3</b>	<b>FP1</b>	<b>FP2</b>	<b>FP3</b>	<b>FP4</b>
<b>Founder (alias)</b>	Bakari	Aminata	Angèle	Seydou	Ekon	Sara	Eloi
<b>Degrees</b>	/	/	Care assistant	Master's degrees	Master's degree	Bachelor's degrees	/
<b>Status</b>	Not-for-profit	Not-for-profit	Not-for-profit	For-profit	For-profit	For-profit (former not-for-profit)	For-profit (former not-for-profit)
<b>Year of creation</b>	1995	1999	1999	1993	1990	1996	1992
<b>Position in the sector</b>	Head of EIG → 3 NFPs	Head of EIG → 10 NFPs	Head of EIG → 2 NFPs (10 unofficially)	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)
<b>#staff</b>	17	25	20	17	23	40	110
<b>#clients</b>	400	1000	1200	3500	3000	4000	2500
<b>Collection means</b>	Motorised engines and donkey carts	Donkey carts	Donkey carts	Motorised engines	Donkey carts (trucks before)	Donkey carts	Motorised engines and donkey carts

Collection area	Central & rich	Peripheral & low income	Peripheral & middle income	Central & middle income	Central & middle income	Peripheral & middle income	Central & middle-income
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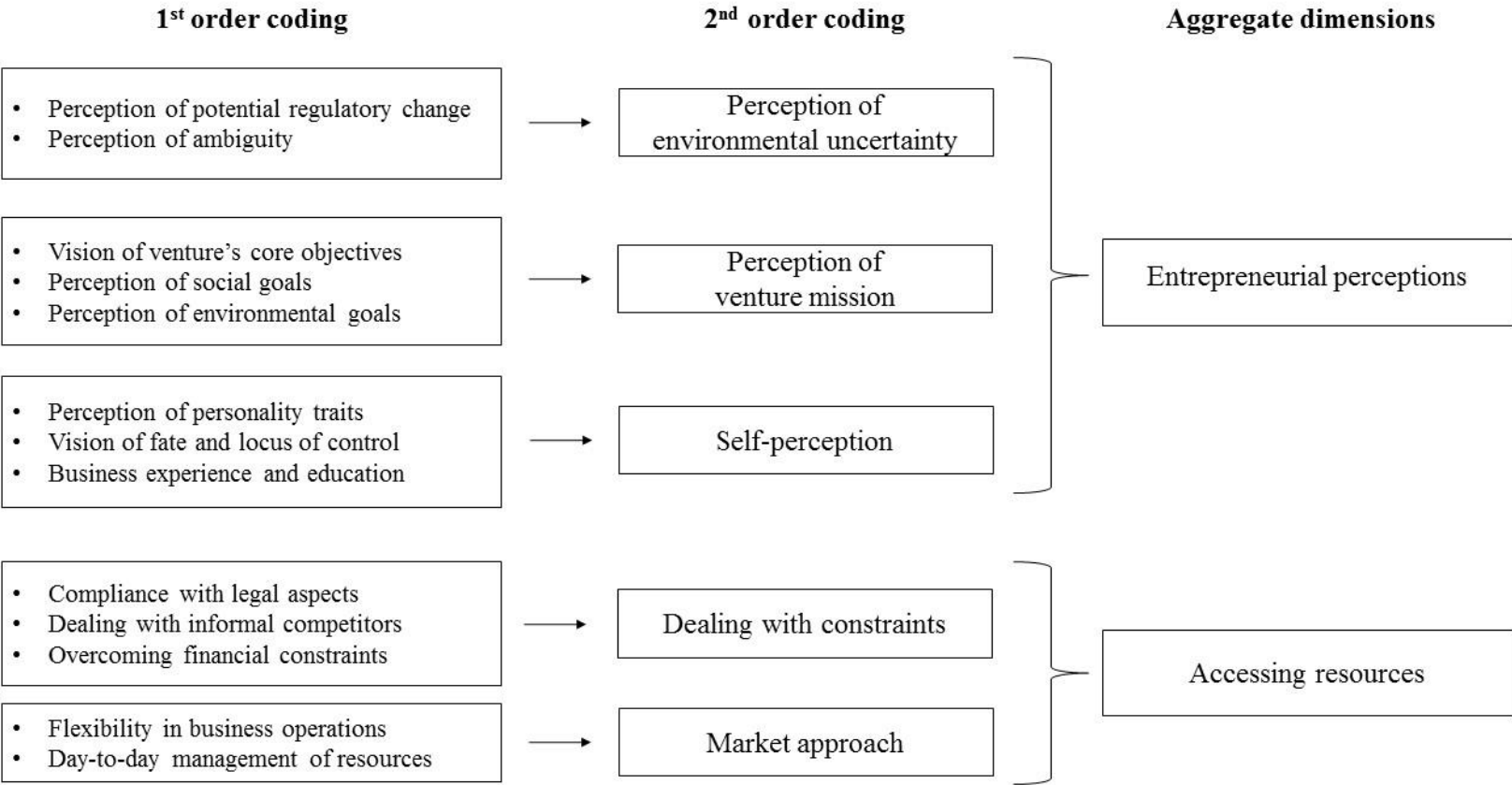
Note: NFP = not-for-profit, FP = for-profit.

Source: Authors own work

Monographs were written to enable in-depth understanding of each case. Then, 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). A first coding round was conducted by the first author and then gradually enhanced by the other authors during monthly meetings. By improving the data framework, the authors were able to compare the case studies for all first-order codes, gradually developing cross-case comparisons, i.e., assessing and mapping the different codes to find similarities and differences among the founders and to answer the research questions.

The perceptions of the founders were structured as second-order codes and identified at three levels of analysis: perception of environmental uncertainty, mission perception, and self-perception. The authors followed the same pattern for the accessing resources practices, which were also coded as second-order codes (see Figure 1). Connecting the three types of perceptions with different approaches to accessing resources, the cross-case comparisons allowed the authors to delineate three contrasted approaches to accessing resources in an uncertain environment. Relevant interview quotes and document citations were selected at each intersection of code and case study. All interviews were transcribed *verbatim* and professionally translated from French into English.

**Figure 1: Coding structure**



Source: Authors own work

## **Findings**

The following sub-sections show how entrepreneurs differ in their perceptions of environmental uncertainty, of venture mission and of themselves, as well as in the way they deal with constraints and approach the market. Then, three types of “perception-practice” approaches are identified through which entrepreneurs in uncertain environments access resources.

### *Entrepreneurial perceptions*

#### *Perception of environmental uncertainty*

Certain waste collection venture founders saw environmental uncertainty as problematic, while others saw it as acceptable if not comfortable. For some of these entrepreneurs, the comfort of uncertainty can be explained by the latitude that it gave them to pursue their activities. 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 materialize. Because these entrepreneurs were unsure whether future changes would be favourable or not, they preferred the status quo:

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! (Angèle, NFP3)

Other entrepreneurs did not perceive regulatory uncertainty as a tension or constraint but rather as an opportunity to grow and demonstrate their skills and resilience. They believed that they could absorb any change, using their experience to anticipate and adapt to any alteration 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! (Sara, FP3)

Still other entrepreneurs felt much tension coming from the environmental 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. (Seydou, FP1)

In the current mess, people are happy, they prefer it, I understand the system. But I hate it, especially the corruption. (Ekon, FP2)

### *Perception of venture mission*

Surprisingly, none of the venture founders 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 best possible revenue from their entrepreneurial activity.

Some founders clearly mentioned solidarity as forming 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 important risks and led them to favour stability. For example:

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] organisation, with the



little we have, we want to recruit more people to give them jobs and to increase salaries.

(Angèle, NFP3)

They 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. (Bakari, NFP1)

By contrast, other founders were more focused on revenue generation and, to a lesser extent, environmental or social considerations. One entrepreneur 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]. (Seydou, FP1)

For Sara (FP3), the entrepreneurial mission was clearly oriented towards 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. I am present in two cities, Ouagadougou and Bobo, and 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.... It forces you to work hard, it forces you to grow.

### *Self-perception*

Finally, perception of resource accessibility also depended on the way in which entrepreneurs perceived themselves at the individual level based on their own skills, education, background, position, and personality.

Some entrepreneurs felt marginalized 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. For example:

We are small.... 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. (Angèle, NFP3)

In contrast, other venture founders felt more ambitious, but the authors observed significant differences between them. One group desperately wanted to succeed and relied on theoretical knowledge to set up a consistent development strategy. However, high uncertainty perception and lower self-confidence led them to adopt shifting, unstable strategies:

We were all enthusiastic about this master plan thing, we got into it, doing calculations. I have studied everything.... But at a certain point, ... I realised that, well, it did not work.... We are in a field where theory does not work. (Seydou, FP1)

In the other group of entrepreneurs, an orientation towards hard work, autonomy, and reputation drove their positive perception of resource accessibility. Eloi (FP4) spoke of himself as a person of courage and integrity, with a wealth of experience, that enabled him to overcome any problems. Sara (FP3) came from a family of entrepreneurs and viewed herself as a skilled

businesswoman who had entrepreneurship in her blood. She saw herself as an ambitious and self-confident leader, both for her venture and for the broader sector:

I left the not-for-profit status because as we say, we cannot have two captains on the same boat. Now, I have adopted the [for-profit form] because of my increasing turnover. But I grew alone and I'm not looking for partners. I want to be able to decide on my own.

### *Accessing resources*

#### *Dealing with constraints*

Many waste collection entrepreneurs had a very constrained perception of their opportunities, and thus of resource accessibility. Consequently, they heavily relied on the municipality's resources, including legal contracts, approved areas for collection and transit centres. They felt constrained by the state of the roads that damaged their equipment and slowed down their work:

Consider 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! I know now that the key to success is the municipality.... Without them, we cannot even breathe! (Seydou, FP1)

For many years, these venture founders felt threatened by informal waste collectors who used the same collection means (donkey carts) and operated in the same areas. But they felt dependent on the municipality to sanction informal competitors:

We face a lot of competition. There are a lot of informal individuals and associations, but they haven't applied to the call for tenders. There are fathers of families, young people, almost everyone is on the ground with us. The municipality had started to seize

their carts, but with the military mutinies that have made the population revolt, no one dares touch anyone for fear that the population will rise up. (Aminata, NFP2)

Another group of entrepreneurs had a much more positive perception of resource accessibility. For these founders, public and legal resources were not a problem and could be bypassed. For example, Sara (FP3) 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. As Eloi, she also felt strong enough to compete against other ventures and enter other markets whenever necessary. Unlike the other founders, she did not perceive informal competitors in her approved area as a significant threat because 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.

### *Market approach*

Regarding the financing of their activities, many founders believed that public help (loans or subsidies) was crucial to profitability within the sector. Although they wished to diversify their activities to have other incomes and make up for the shortfall from their work in the waste sector, they feared the risk of engaging in diversification.

After working in the sector for a long time, some entrepreneurs did not see any other option than continuing to work with the resources at hand. They took on a hands-off, *laissez-faire* stance because they were afraid of change and they did not dare to oppose resource-providing stakeholders in the sector, in particular the municipality and households:

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.

(Angèle, NFP3)

To deal with constraints, other founders set up a different approach, relying on general management principles, albeit with little success. For example, when Seydou (FP1) 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. Ekon (FP2) also tried out different strategies, regularly going back and forth. For example, when fuel became expensive during the political crisis following a popular uprising in 2013, he abandoned the truck and switched to donkey-drawn carts.

By contrast, another group of entrepreneurs adopted a more opportunistic approach to resources. These entrepreneurs also had a contrasted perception of their chances to access financial resources as they viewed themselves as independent from public loans or subsidies.

Instead, they relied on public contracts, regularly participating in public calls for tender. They also invested in several activities, such as the cleaning of large sites, and they explored new resources autonomously to improve their work. For example, Eloi (FP4) gradually moved from donkey carts to trucks, overcoming the financial constraints by negotiating payment terms with individuals whom he convinced to trust him.

In life, you have to know how to talk and negotiate with people who have liquidity and who believe in you. Today, I am almost the only one collecting waste with three trucks.  
(Eloi, FP4)

### *Three contrasting entrepreneurial approaches to accessing resources*

Conducting a cross-case analysis of the five second-order categories, we observed similarities and differences in perceptions and practices among entrepreneurs, identifying three different types of “perception-practice” approaches.

This first entrepreneurial approach, adopted by the not-for-profit (NFP) founders, is called “*submissive*”. NFP founders perceived the environmental uncertainty as comfortable as they did not feel capable of implementing any major changes. Moreover, they shared a religious belief that resource accessibility depended on God’s will but also on the municipality, so the only possible course of action was to submit themselves to fate. They preferred living from day to day and in harmony with one another, as favoured by the local culture, over trying to change the environment and fighting against other market actors (municipality, formal or informal competitors, and households). In line with their mission, NFP founders emphasized that they did not want to jeopardize their social commitment to marginalized people by taking the risk to explore new resources. That is why they adopted a ‘*laissez-faire*’ attitude and felt quite small and powerless in comparison with for-profit ventures.

The second entrepreneurial approach, coined “*oscillating*” approach, concerned a group of for-profit (FP) entrepreneurs. Seydou (FP1) and Ekon (FP2) experienced uncertainty as very stressful and uncomfortable. They wanted to live of their activity and make a profit by adopting theoretical management prescriptions to try to control their activity in the face of uncertainty. They regularly experimented with new strategies to juggle resources, going back and forth in diversifying their activities or alternatively firing and hiring employees. As they regularly experienced failure and struggled to survive, they perceived their business as highly dependent on the municipality and the regulation of the sector.

The third approach, referred to as “*opportunistic*”, was adopted by two FP entrepreneurs, Sara (FP3) and Eloi (FP4), who felt strong enough to run their ventures despite the environmental uncertainty. Like the submissive founders, they viewed uncertainty as a given that was out of their control and, therefore, not as a topic of concern. But their approach was different as they embraced uncertainty as an opportunity to explore new resources, allowing them to evolve and grow. They saw themselves as powerful and thought that they could mobilize and access resources through their hard work. For them, competition from informal actors was not a problem but a sign of performance.

**Table 2: Founders' perceptions and their role in shaping the entrepreneurs' approach to accessing resources**

		<b>Oscillator</b> Seydou (FP1) & Ekon (FP2)	<b>Submissive</b> Bakari (NFP1), Aminata (NFP2) & Angèle (NFP3)	<b>Opportunistic</b> Sara (FP3) & Eloï (FP4)
<b>Entrepreneurial perceptions</b>				
<b>Perception of environmental uncertainty</b>	Potential regulatory change	Stress	No means to face changes	Opportunity, used to change
	Perception of ambiguity	Uncomfortable	Comfortable (not a concern)	Acceptable
<b>Perception of venture mission</b>	Economic dimension	To survive in the long term (earn a living)	To increase salaries	To evolve and grow, 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	To help poor people
	Environmental dimension		Contribute to cleaner neighbourhoods	Raise awareness of the value of waste
<b>Self-perception</b>	Personality traits	Ambitious, frank, honest	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/work
	Business experience and education	Importance of experience in the sector Importance of degree, trainings	Limited skills but experience in the sector	Entrepreneurship in the blood, much experience Importance of continuing education
<b>Approaches to accessing resources</b>				
<b>Dealing with constraints</b>	Compliance with legal requirements Approach with informal competitors	Waiting for big regulatory changes Organising and outsourcing to informal people	Waiting for municipal solutions Support informal people	Ignoring constraints Fighting informal competition by reducing prices and/or be stronger and more strategic
	Financial constraints	Targeting bigger clients Back and forth in diversification Trying to obtain financial help	Need for public and/or private aid/loans to diversify activities	Diversification of funding (via other activities, individuals, banks, ...)
<b>Market approach</b>	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 Fear of change in their practices	Exploring new resources

Source: Authors own work



In conclusion, the findings indicate that whether *environmental uncertainty* is viewed positively or negatively appears to impact entrepreneurs' perception of the accessibility of resources and, subsequently, their actual resource mobilisation strategies.

The findings also show that, beyond environmental uncertainty, *the perception of the ventures' formal mission* played an important role in shaping entrepreneurs' views of their capacities to access resources. The opportunistic entrepreneurs viewed access to resources as an exciting challenge that was part of their growing evolution and their ambition to conquer new markets. By contrast, the other founders, despite pursuing different missions, all perceived resources as difficult to access. The oscillating entrepreneurs considered their access to resources as very precarious, which they desperately tried to fix by clinging to recommended practices.

The results also suggest that how entrepreneurs perceive *themselves* significantly influenced how they perceive the accessibility of resources. The submissive entrepreneurs did not believe that they could influence their environment and, consequently, did not feel able to improve their own access to resources. By contrast, the opportunistic entrepreneurs believed that access to resources mainly depended on themselves, i.e., on their willingness and capacity to deploy their ventures on the market, independently of others and despite the high level of uncertainty while oscillator entrepreneurs were located in between these two patterns.

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. For 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 entrepreneurs acquired alternative resources to bypass the municipality's limitations and become more efficient.

## **Discussion and contributions**

Studying how entrepreneurial perceptions relate to diverse resource access practices in a context of extreme uncertainty, the findings highlight three different approaches. The findings show why and how diverging perceptions are associated with different approaches to access resources in a similar context (Aliaga-Isla, 2016; Baron, 2004; Krueger, 2003; Mitchell, Busenitz, *et al.*, 2002), adding to the efforts to bridge cognitive with resource-based approaches to entrepreneurship in the context of extreme uncertainty (Brigham *et al.*, 2007; Edelman and Yli-Renko, 2010). Beyond the identification of three “perception-practice” approaches (i.e. submissive, oscillating, and opportunistic), this paper adds two additional contributions to the literature.

First, by highlighting variation in how entrepreneurs perceive the mission pursued by their venture, the article contributes to nuancing the for-profit versus not-for-profit divide in the sub-Saharan African context. The variety of venture missions is particularly high in “mixed-form markets” composed of both for-profit and not-for-profit ventures (Becchetti and Huybrechts, 2008; Marwell and McInerney, 2005), as is the case in the waste collection sector in Ouagadougou. Previous research assumed that the general profit orientation would determine how entrepreneurs behaved in an uncertain environment (Bylund and McCaffrey, 2017). 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 and Huybrechts, 2008; Heinrich, 2000). 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 and McInerney, 2005). The findings offer a more complex picture and suggest that the divide between for-profit and not-for-profit must be nuanced to capture the diversity of

entrepreneurial approaches in the sub-Saharan African context. This is even more so for venture founders who belong to vulnerable groups, for whom income generation is synonym for survival and addressing the social needs of their communities (Kuada, 2015).

Second, this study contributes to the growing literature on sub-Saharan African entrepreneurship (Bruton *et al.*, 2008; Chipeta *et al.*, 2022; Devine and Kiggundu, 2016; Galdino and Lawong, 2024; Vermeire and Bruton, 2016), helping to nuance the dominance of Western-based knowledge through increased contextualization (Filatotchev *et al.*, 2022). By highlighting specific and seemingly surprising entrepreneurial attitudes towards uncertainty that partly differ from the traditional depiction of Western entrepreneurs, the paper contributes to broadening the scope of entrepreneurial perceptions and associated resource access practices (Hayton *et al.*, 2002; Madichie *et al.*, 2008; Rivera-Santos *et al.*, 2014). Most sub-Saharan African contexts, and Burkina Faso in particular, are characterized by a dominant logic of life and business that consists of looking for harmony in the community and emphasis on how every individual is bound by collective moral rules (Kamdem, 2002; Kuada, 2010). To maintain this harmony, people are not supposed to accumulate profits without helping other members of the community, redistributing their profits and engaging in reciprocity practices (e.g. donations, services) (Hillenkamp *et al.*, 2013; Kamdem, 2002; Laurent, 2012). This practice may thus lead venture founders in sub-Saharan Africa to maintain a sense of blurriness (Laurent, 2012), as observed with submissive and opportunistic entrepreneurs. Only oscillator entrepreneurs 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 and institutions (Bylund and McCaffrey, 2017), which is particularly visible in the case of the submissive and oscillator entrepreneurs obeying the municipality.

Overall, the findings suggest that the entrepreneurial perceptions and associated resource access practices in the sub-Saharan African context are anchored into different ways of dealing with local norms on one hand and international, Western norms as diffused through development policies on the other hand (Dan Rani Guero and Gueye, 2022; Hofstede, 1993; Mitchell-Weaver and Manning, 1991; Nizet and Pichault, 2007). Submissive entrepreneurs largely adopt local values, oscillator entrepreneurs embrace prescribed management practices almost blindly, and opportunistic entrepreneurs feel free to embrace a more hybridized approach to business, blending international influence and local values. The latter approach appears fruitful in terms of the success of the ventures. Therefore, the entrepreneurial context also seems to be enacted in cultural terms: rather than uniformly complying with one cultural setting, sub-Saharan African venture founders, similar to migrant entrepreneurs (Aliaga-Isla and Rialp, 2013), have the capacity to assemble building blocks from different cultural contexts within their ventures. The findings thus contribute to extending empirical studies of entrepreneurship not only outside Western countries but, also, beyond viewing “African” or “developing country” entrepreneurs as a homogeneous category (Rivera-Santos *et al.*, 2014).

### **Limitations and future research avenues**

The study faces several limitations, each of which opens avenues for future research. First, the study was focused on one city in Burkina Faso, which warrants caution when extrapolating the findings to other sub-Saharan African contexts. While acknowledging the specific context in which the study was conducted, it can be reasonably assumed that the diversity of entrepreneurial approaches in terms of perception and resource access, albeit not exhaustive, may resonate with the reality of entrepreneurs in other sub-Saharan African settings. The way in which most sub-Saharan African settings display high levels of uncertainty as well as coexistence of local and international norms has been largely documented in the literature

(Devine and Kiggundu, 2016; Laleye *et al.*, 1996; Madichie *et al.*, 2008; Vermeire and Bruton, 2016). Therefore, while the three entrepreneurial approaches may not encompass the whole spectrum of resource accessibility perception and practice patterns among sub-Saharan African ventures, the main take-away for future research is to highlight the variance of resource access practices in the sub-Saharan African context and emphasize how they depend not only on objective business conditions and the entrepreneurs' resource environment, but also on subjective perceptions of resource accessibility. In this context, future work could explore and compare the interplay of entrepreneurial perceptions and resource access practices in other sub-Saharan African countries and in sectors other than waste management, so as to illuminate how contextual factors influence the types and diversity of entrepreneurial approaches (Kamdem, 2002; Madichie *et al.*, 2008). In particular, building on the findings of this paper, future studies could examine how collective-based and reciprocity-oriented behaviour embedded in sub-Saharan African culture intertwines with social entrepreneurial values of Western inspiration in shaping entrepreneurial responses to uncertainty (Hillenkamp *et al.*, 2013).

Moreover, the article 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 related to resource mobilization. Finally, although this was not the focus of the study, the three entrepreneurial approaches seemed to lead to varying levels of venture success: 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.

Lastly, 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 privatized in most sub-Saharan African countries, with the aim of making 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. Therefore, actors in charge of waste management policy at the local, national and international level could better take the diversity of entrepreneurial approaches into consideration to formulate tailored policies to support waste entrepreneurs in accessing the resources they need. Such an improved access to resources is likely to lead to a better interaction between economic activity and social impact (SDG 8) and improved waste collection, resulting in reduced health hazard (SDG 15). Overall, this study may provide relevant insights for future research and policy endeavours interested in a (more) fine-grained understanding of different entrepreneurs' profiles and needs in terms of accessing resources and dealing with uncertainty.

## References

- Achtenhagen, L. and Brundin, E. (Eds.). (2016), *Entrepreneurship and SME Management Across Africa*, Springer Singapore, Singapore, doi: 10.1007/978-981-10-1727-8.
- Akinyoade, A., Dietz, T. and Uche, C. (2017), *Entrepreneurship in Africa*, BRILL, doi: 10.1163/9789004351615.
- Alexander, I.K. and Honig, B. (2016), "Entrepreneurial Intentions: A Cultural Perspective", *Africa Journal of Management*, Vol. 2 No. 3, pp. 235–257, doi: 10.1080/23322373.2016.1206801.

- Aliaga-Isla, R. (2016), "Handbook of Entrepreneurial Cognition", *International Journal of Entrepreneurial Behavior & Research*, Emerald Group Publishing Limited, Vol. 22 No. 2, pp. 284–287, doi: 10.1108/IJEER-11-2015-0231.
- Aliaga-Isla, R. and Rialp, A. (2013), "Systematic review of immigrant entrepreneurship literature: previous findings and ways forward", *Entrepreneurship & Regional Development*, Vol. 25 No. 9–10, pp. 819–844, doi: 10.1080/08985626.2013.845694.
- Baron, R.A. (2004), "The cognitive perspective: a valuable tool for answering entrepreneurship's basic 'why' questions", *Journal of Business Venturing*, Vol. 19 No. 2, pp. 221–239, doi: 10.1016/S0883-9026(03)00008-9.
- Becchetti, L. and Huybrechts, B. (2008), "The Dynamics of Fair Trade as a Mixed-form Market", *Journal of Business Ethics*, Vol. 81 No. 4, pp. 733–750, doi: 10.1007/s10551-007-9544-8.
- Beugré, C.D. (2017), *Building Entrepreneurial Ecosystems in Sub-Saharan Africa: A Quintuple Helix Model*, Palgrave Macmillan US, New York, doi: 10.1057/978-1-137-56894-6.
- Beugré, C.D. and Offodile, O.F. (2001), "Managing for organizational effectiveness in sub-Saharan Africa: a culture-fit model", *The International Journal of Human Resource Management*, Vol. 12 No. 4, pp. 535–550, doi: 10.1080/713769650.
- Bloch, M.E.F. (1998), *How We Think They Think. Anthropological Approaches to Cognition, Memory, and Literacy*, Westview Press, Boulder, CO.
- Bouju, J. and Ouattara, F. (2002), *Une Anthropologie Politique de La Fange.*, SHADYC-GRIL No. 04, Hal archives-ouvertes, Marseille/Ouagadougou.
- Brigham, K.H., De Castro, J.O. and Shepherd, D.A. (2007), "A Person-Organization Fit Model of Owner-Managers' Cognitive Style and Organizational Demands", *Entrepreneurship Theory and Practice*, Vol. 31 No. 1, pp. 29–51.
- Brouwer, M.T. (2002), "Weber, Schumpeter and Knight on entrepreneurship and economic development", *Journal of Evolutionary Economics*, Vol. 12 No. 1, pp. 83–105.

- Bruton, G.D., Ahlstrom, D. and Obloj, K. (2008), "Entrepreneurship in Emerging Economies: Where Are We Today and Where Should the Research Go in the Future", *Entrepreneurship Theory and Practice*, Vol. 32 No. 1, pp. 1–14, doi: 10.1111/j.1540-6520.2007.00213.x.
- Busch, C. and Barkema, H. (2021), "From necessity to opportunity: Scaling bricolage across resource-constrained environments", *Strategic Management Journal*, Vol. 42 No. 4, pp. 741–773, doi: 10.1002/smj.3237.
- Butler, J.E., Doktor, R. and Lins, F.A. (2010), "Linking international entrepreneurship to uncertainty, opportunity discovery, and cognition", *Journal of International Entrepreneurship*, Vol. 8 No. 2, pp. 121–134, doi: 10.1007/s10843-010-0054-x.
- Bylund, P.L. and McCaffrey, M. (2017), "A theory of entrepreneurship and institutional uncertainty", *Journal of Business Venturing*, Vol. 32 No. 5, pp. 461–475, doi: 10.1016/j.jbusvent.2017.05.006.
- Campbell, B. (2020), "Entrepreneurial uncertainty in context: an ethnomethodological perspective", *International Journal of Entrepreneurial Behavior & Research*, Emerald Publishing Limited, Vol. 27 No. 3, pp. 648–667, doi: 10.1108/IJEER-10-2018-0627.
- Chipeta, E.M., Kruse, P. and Venter, R. (2022), "A Risky Way of Doing Good – Combining Personality and Cognitive Variables in a New Hierarchical Model of Investment Risk-taking in Social Entrepreneurship", *Journal of African Business*, Routledge, Vol. 23 No. 3, pp. 775–793, doi: 10.1080/15228916.2021.1907157.
- Ciambotti, G. and Pedrini, M. (2019), "Hybrid Harvesting Strategies to Overcome Resource Constraints: Evidence from Social Enterprises in Kenya", *Journal of Business Ethics*, doi: 10.1007/s10551-019-04256-y.
- Ciambotti, G., Pedrini, M., Doherty, B. and Molteni, M. (2023), "Unpacking social impact scaling strategies: challenges and responses in African social enterprises as differentiated hybrid organizations", *International Journal of Entrepreneurial Behavior & Research*, Vol. 29 No. 11, pp. 25–57, doi: 10.1108/IJEER-02-2022-0156.



- Cowden, B., Karami, M., Tang, J., Ye, W. and Adomako, S. (2024), "The spectrum of perceived uncertainty and entrepreneurial orientation: Impacts on effectuation", *Journal of Small Business Management*, Routledge.
- Dan Rani Guero, B. and Gueye, B. (2022), "Heuristique d'un processus d'hybridation de l'enseignement du management en Afrique: pratique d'accommodements et risque de « xessalisation » d'une école de gestion", *Management international (Montréal)*, HEC Montréal ; Université Paris Dauphine, Montréal, Vol. 26 No. 5, pp. 118–143, doi: 10.7202/1095471ar.
- Desa, G. and Basu, S. (2013), "Optimization or Bricolage? Overcoming Resource Constraints in Global Social Entrepreneurship: Optimization Versus Bricolage in Global Social Entrepreneurship", *Strategic Entrepreneurship Journal*, Vol. 7 No. 1, pp. 26–49, doi: 10.1002/sej.1150.
- Dessau-Soprin. (2000), "Schéma directeur de gestion des déchets dans la ville de Ouagadougou".
- Devine, R.A. and Kiggundu, M.N. (2016), "Entrepreneurship in Africa: Identifying the Frontier of Impactful Research", *Africa Journal of Management*, Vol. 2 No. 3, pp. 349–380, doi: 10.1080/23322373.2016.1206802.
- Douglas, D. (2009), "Entrepreneurial Strategic Decision-Making: A Cognitive Perspective", *International Journal of Entrepreneurial Behavior & Research*, Emerald Group Publishing Limited, Vol. 15 No. 5, pp. 521–524, doi: 10.1108/13552550910983077.
- Edelman, L. and 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*, Vol. 34 No. 5, pp. 833–856, doi: 10.1111/j.1540-6520.2010.00395.x.
- Fabian, J. (1999), "Remembering the Other: knowledge and recognition in the exploration of Central Africa", *Critical Inquiry*, Vol. 26 No. 1, pp. 49–69.

- Filatotchev, I., Ireland, R.D. and Stahl, G.K. (2022), "Contextualizing Management Research: An Open Systems Perspective", *Journal of Management Studies*, Vol. 59 No. 4, pp. 1036–1056, doi: 10.1111/joms.12754.
- Fournet, F., Meunier-Nikiema, A. and Salem, G. (2008), *Ouagadougou, 1850-2004: Une Urbanisation Différenciée*, Institut de recherche pour le développement, Marseille.
- Freel, M.S. (2005), "Perceived Environmental Uncertainty and Innovation in Small Firms", *Small Business Economics*, Vol. 25 No. 1, pp. 49–64, doi: 10.1007/s11187-005-4257-9.
- Galdino, K.M., Kiggundu, M.N., Jones, C.D. and Ro, S. (2018), "The Informal Economy in pan-Africa: Review of the Literature, Themes, Questions, and Directions for Management Research", *Africa Journal of Management*, Routledge, Vol. 4 No. 3, pp. 225–258, doi: 10.1080/23322373.2018.1517542.
- Galdino, K.M. and Lawong, D. (2024), "10 years of the Africa Journal of Management: A bibliometric analysis", *Africa Journal of Management*, Routledge, Vol. 10 No. 1, pp. 6–23, doi: 10.1080/23322373.2024.2316502.
- George, G., Corbishley, C., Khayesi, J.N.O., Haas, M.R. and Tihanyi, L. (2016), "Bringing Africa In: Promising Directions for Management Research", *Academy of Management Journal*, Vol. 59 No. 2, pp. 377–393, doi: 10.5465/amj.2016.4002.
- Gioia, D.A., Corley, K.G. and Hamilton, A.L. (2013), "Seeking Qualitative Rigor in Inductive Research: Notes on the Gioia Methodology", *Organizational Research Methods*, Vol. 16 No. 1, pp. 15–31, doi: 10.1177/1094428112452151.
- Hansen, M.W., Langevang, T., Rutashobya, L. and Urassa, G. (2018), "Coping with the African Business Environment: Enterprise Strategy in Response to Institutional Uncertainty in Tanzania", *Journal of African Business*, Vol. 19 No. 1, pp. 1–26, doi: 10.1080/15228916.2017.1330028.
- Hayton, J.C., George, G. and Zahra, S.A. (2002), "National culture and entrepreneurship: A review of behavioral research", *Entrepreneurship Theory and Practice*, Vol. 26 No. 4, p. 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*, pp. 233–261.
- Hillenkamp, I., Lapeyre, F. and Lemaître, A. (2013), "Informal economy, vulnerabilities, and popular security-enhancing practices : introduction", in Hillenkamp, I., Lapeyre, F. and Lemaître, A. (Eds.), *Securing Livelihoods : Informal Economy Practices and Institutions*, Oxford University Press, Oxford, pp. 1–22.
- Hofstede, G. (1993), "Cultural constraints in management theories", *The Academy of Management Executive*, Vol. 7 No. 1, pp. 81–94.
- Holt, D. and Littlewood, D. (2017), "Waste Livelihoods Amongst the Poor - Through the Lens of Bricolage: Waste Livelihoods", *Business Strategy and the Environment*, Vol. 26 No. 2, pp. 253–264, doi: 10.1002/bse.1914.
- Kabongo, J., Abugre, J.B. and Sigué, S. (2024), "Understanding Entrepreneurship in Sub-Saharan Africa: A Venture-ship Approach", in Kabongo, J., Sigué, S. and Baba Abugre, J. (Eds.), *Understanding Entrepreneurship in Sub-Saharan Africa*, Springer Nature Switzerland, Cham, pp. 3–10, doi: 10.1007/978-3-031-50128-9\_1.
- Kamdem, E. (2002), *Management et Interculturalité En Afrique. Expérience Camerounaise*, L'Harmattan., Les presses de l'Université Laval.
- Kansheba, J.M.P. (2020), "Small business and entrepreneurship in Africa: the nexus of entrepreneurial ecosystems and productive entrepreneurship", *Small Enterprise Research*, Vol. 27 No. 2, pp. 110–124, doi: 10.1080/13215906.2020.1761869.
- Khayesi, J.N.O., George, G. and Antonakis, J. (2014), "Kinship in Entrepreneur Networks: Performance Effects of Resource Assembly in Africa", *Entrepreneurship Theory and Practice*, Vol. 38 No. 6, pp. 1323–1342, doi: 10.1111/etap.12127.

- Kolade, O., Rae, D., Obembe, D. and Woldesenbet Beta, K. (Eds.). (2022), *The Palgrave Handbook of African Entrepreneurship*, Springer International Publishing, Cham, doi: 10.1007/978-3-030-75894-3.
- Kolk, A. and 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*, Vol. 57 No. 3, pp. 415–436, doi: 10.1177/0007650316629129.
- Krueger, N.F. (2003), "The cognitive psychology of entrepreneurship", *Handbook of Entrepreneurship Research*, Springer, pp. 105–140.
- Kuada, J. (2010), "Culture and leadership in Africa: a conceptual model and research agenda", *African Journal of Economic and Management Studies*, Vol. 1 No. 1, pp. 9–24, doi: 10.1108/20400701011028130.
- Kuada, J. (2015), "Entrepreneurship in Africa – a classificatory framework and a research agenda", *African Journal of Economic and Management Studies*, Vol. 6 No. 2, pp. 148–163.
- Laleye, I., Panhuys, H., Verhelst, T. and Zaoual, A. (1996), *Organisations Économiques et Cultures Africaines. De l'homo Oeconomicus à l'homo Situs*, L'Harmattan.
- 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*, No. 80, pp. 169–181.
- Littlewood, D., Ciambotti, G., Holt, D. and Steinfield, L. (2022), "Special issue editorial: Social innovation and entrepreneurship in Africa", *Africa Journal of Management*, Vol. 8 No. 3, pp. 259–270, doi: 10.1080/23322373.2022.2071579.
- Littlewood, D. and Holt, D. (2015), "Social Entrepreneurship in South Africa: Exploring the Influence of Environment", *Business & Society*, SAGE Publications Inc, Vol. 57 No. 3, pp. 525–561, doi: 10.1177/0007650315613293.
- Madichie, N.O., Nkamnebe, A.D. and Idemobi, E.I. (2008), "Cultural determinants of entrepreneurial emergence in a typical sub-Sahara African context", *Journal of Enterprising Communities: Emergence in a typical sub-Sahara African context*

- People and Places in the Global Economy*, Vol. 2 No. 4, pp. 285–299, doi:  
10.1108/17506200810913881.
- Mair, J. and Marti, I. (2009), “Entrepreneurship in and around institutional voids: A case study from Bangladesh”, *Journal of Business Venturing*, Vol. 24 No. 5, pp. 419–435, doi:  
10.1016/j.jbusvent.2008.04.006.
- Marwell, N.P. and McInerney, P.-B. (2005), “The Nonprofit/For-Profit Continuum: Theorizing the Dynamics of Mixed-Form Markets”, *Nonprofit and Voluntary Sector Quarterly*, Vol. 34 No. 1, pp. 7–28, doi: 10.1177/0899764004269739.
- McMullen, J.S. and Shepherd, D.A. (2006), “Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur”, *Academy of Management Review*, Vol. 31 No. 1, pp. 132–152.
- Meunier-Nikiema, A. (2007), “Géographie d’une ville au travers de la gestion des déchets Ouagadougou”.
- Mitchell, R.K., Busenitz, L., Lant, T., McDougall, P.P., Morse, E.A. and Smith, J.B. (2002), “Toward a theory of entrepreneurial cognition: Rethinking the people side of entrepreneurship research”, *Entrepreneurship Theory and Practice*, Vol. 27 No. 2, pp. 93–104.
- Mitchell, R.K., Busenitz, L.W., Bird, B., Marie Gaglio, C., McMullen, J.S., Morse, E.A. and Smith, J.B. (2007), “The central question in entrepreneurial cognition research 2007”, *Entrepreneurship Theory and Practice*, Vol. 31 No. 1, pp. 1–27.
- Mitchell, R.K., Smith, J.B., Morse, E.A., Seawright, K.W., Peredo, A.M. and McKenzie, B. (2002), “Are Entrepreneurial Cognitions Universal? Assessing Entrepreneurial Cognitions across Cultures - Ronald K. Mitchell, J. Brock Smith, Eric A. Morse, Kristie W. Seawright, Ana Maria Peredo, Brian McKenzie, 2002”, *Entrepreneurship Theory and Practice*, Vol. 26 No. 4, pp. 9–32.
- Mitchell-Weaver, C. and Manning, B. (1991), “Public-private partnerships in third world development: A conceptual overview”, *Studies in Comparative International Development (SCID)*, Vol. 26 No. 4, pp. 45–67.

- Mutabazi, E. (2006), "Face à la diversité des cultures et des modes de gestion : le modèle circulaire de management en Afrique", *Management & Avenir*, Vol. 10 No. 4, p. 179, doi: 10.3917/mav.010.0179.
- Nizet, J. and Pichault, F. (2007), *Les performances des organisations africaines. Pratiques de gestion en contexte incertain*, L'Harmattan, France, Paris.
- Olagboye, D. and Okafor, G. (2022), "Enterprise Survival and Growth: A Conceptual Exposition of Entrepreneurial Activities in Sub-Saharan Africa", *The Palgrave Handbook of African Entrepreneurship*, Springer International Publishing, Cham, pp. 93–114, doi: 10.1007/978-3-030-75894-3\_5.
- Oteng-Ababio, M. (2010), "Private sector involvement in solid waste management in the Greater Accra Metropolitan Area in Ghana", *Waste Management & Research: The Journal for a Sustainable Circular Economy*, Vol. 28 No. 4, pp. 322–329, doi: 10.1177/0734242X09350247.
- Packard, M.D., Clark, B.B. and Klein, P.G. (2017), "Uncertainty Types and Transitions in the Entrepreneurial Process", *Organization Science*, INFORMS, Vol. 28 No. 5, pp. 840–856, doi: 10.1287/orsc.2017.1143.
- Post, J. (1999), "The Problems and Potentials of Privatising Solid Waste Management in Kumasi, Ghana", *Habitat International*, Vol. 23 No. 2, pp. 201–215, doi: 10.1016/S0197-3975(98)00045-9.
- PSRDO-CER, Projet Stratégie de Réduction des Déchets de, Ouagadougou-Création d'Emplois et de Revenus par des, and actions de collecte, de tri et de valorisation. (2010), *Rapport de l'étude A.31: Réactualisation Des Données Sur La Problématique de La Gestion Des Déchets Dans La Commune de Ouagadougou*.
- Reypens, L., Bacq, S. and Milanov, H. (2021), "Beyond bricolage: Early-stage technology venture resource mobilization in resource-scarce contexts", *Journal of Business Venturing*, Vol. 36 No. 4, p. 106110, doi: 10.1016/j.jbusvent.2021.106110.

- Rivera-Santos, M., Holt, D., Littlewood, D. and Kolk, A. (2014), "Social Entrepreneurship in Sub-Saharan Africa", *Academy of Management Perspectives*, Academy of Management, Vol. 29 No. 1, pp. 72–91, doi: 10.5465/amp.2013.0128.
- Rogerson, C.M. (2001), "The waste sector and informal entrepreneurship in developing world cities", *Urban Forum*, Vol. 12 No. 2, pp. 247–259, doi: 10.1007/s12132-001-0018-2.
- Shepherd, D.A. and Patzelt, H. (2018), "Prior Knowledge and Entrepreneurial Cognition", in Shepherd, D.A. and Patzelt, H. (Eds.), *Entrepreneurial Cognition: Exploring the Mindset of Entrepreneurs*, Springer International Publishing, Cham, pp. 7–49, doi: 10.1007/978-3-319-71782-1\_2.
- 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. and Tallet, B. (2012), "Des choix d'aménagement urbain porteurs d'inégalités sociales et environnementales: La gestion des déchets solides à Ouagadougou (Burkina Faso)", *Flux*, No. 3, pp. 79–89.
- Townsend, D.M., Hunt, R.A., McMullen, J.S. and Sarasvathy, S.D. (2018), "Uncertainty, Knowledge Problems, and Entrepreneurial Action", *Academy of Management Annals*, Academy of Management, Vol. 12 No. 2, pp. 659–687, doi: 10.5465/annals.2016.0109.
- Traoré, M. (2011), "Analyse de la participation citoyenne autour de la gestion des déchets dans la ville de Ouagadougou (Burkina Faso)", *Actes de La Deuxième Journée Doctorale Sur La Participation Du Public et La Démocratie Participative, Supp. École des Hautes Études en Sciences Sociales, Paris*.
- Traoré, M. (2011), *Le "Sale" et Le "Propre" : Modes de Gestion Des Déchets Ménagers et Logiques Identitaires à Ouagadougou*, Université de Poitiers.
- Unger, J.M., Keith, N., Hilling, C., Gielnik, M.M. and 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*, Vol. 82 No. 1, pp. 21–44, doi: 10.1348/096317908X304361.

- 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*, Vol. 21 No. 9, pp. 1512–1530, doi: 10.1080/09585192.2010.488457.
- Vermeire, J.A.L. and Bruton, G.D. (2016), "Entrepreneurial Opportunities and Poverty in Sub-Saharan Africa: A Review & Agenda for the Future", *Africa Journal of Management*, Vol. 2 No. 3, pp. 258–280, doi: 10.1080/23322373.2016.1206803.
- Welter, F., Xheneti, M. and 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*, Vol. 12 No. 1, pp. 23–53, doi: 10.1002/sej.1274.
- Wilson, D., Rodic, L., Modak, P., Soos, R., Carpintero, A., Velis, K., Iyer, M., et al. (2015), *Global Waste Management Outlook*, UNEP.
- Wilson, D.C., Kanjogera, J.B., Soós, R., Briciu, C., Smith, S.R., Whiteman, A.D., Spies, S., et al. (2017), "Operator models for delivering municipal solid waste management services in developing countries. Part A: The evidence base", *Waste Management & Research*, Vol. 35 No. 8, pp. 820–841, doi: 10.1177/0734242X17705723.
- Wilson, D.C., Rodic, L., Scheinberg, A., Velis, C.A. and Alabaster, G. (2012), "Comparative analysis of solid waste management in 20 cities", *Waste Management & Research: The Journal for a Sustainable Circular Economy*, Vol. 30 No. 3, pp. 237–254, doi: 10.1177/0734242X12437569.
- Yin, R.K. (2003), *Case Study Research: Design and Methods*, SAGE Publications.
- Zayadin, R., Zucchella, A., Anand, A., Jones, P. and Ameen, N. (2023), "Entrepreneurs' Decisions in Perceived Environmental Uncertainty", *British Journal of Management*, Vol. 34 No. 2, pp. 831–848, doi: 10.1111/1467-8551.12612.



