CHAPTER 10

PANAFRICA: MEETING THE SDGs THROUGH A CIRCULAR BUSINESS MODEL

Noémie Dominguez

ABSTRACT

The concept of circular economy (CE) has been receiving a lot of attention over the past years from academics, practitioners and policymakers. This is particularly the case for small- and medium-sized enterprises (SMEs) who find in CE a way to overcome their resource scarcity. However, little is known about how embracing the CE perspective can contribute to meet the sustainable development goals (SDGs). The present chapter aims at answering this question. Through a single case study, we explore the drivers, managerial practices and collaborations implemented by SMEs to generate economic, social and environmental values.

Keywords: Circular economy; sustainable development; start-up; internationalization; Africa; Textile industry

1. INTRODUCTION

CE is gaining popularity among governments, companies and citizens (Sohal & De Vass, 2022) notably since the publication of the United Nations Sustainable

Creating a Sustainable Competitive Position: Ethical Challenges for International Firms
International Business & Management, Volume 37, 179–195

ISSN: 1876-066X/doi:10.1108/S1876-066X20230000037010

Development Goals (UN SDGs). It addresses the pressing demand for sustainability generated by environmental problems, societal expectations and economic challenges across the globe (Geissdoerfer et al., 2017; Sohal & De Vass, 2022).

CE is perceived a way to achieve corporate sustainability (Khan et al., 2020) by promoting a reasonable use of resources and reducing firms' ecological footprint. It is also seen as a way to create, deliver and capture value while building fairer societies worldwide (Chizaryfard et al., 2021). Indeed, CE stands for a transition from linear to circular business models across multiple industries (Dey et al., 2020). It encourages stakeholders to collaborate in order to reduce their gas emissions. It also encourages them to operate more efficiently by reducing, reusing and/or recycling resources (Kirchherr et al., 2017). By doing so, public and private actors participate in increasing the resilience and sustainability of value chains (Chizaryfard et al., 2021).

However, engaging in CE remains difficult today. Indeed, it implies a radical shift in terms of strategy, business models and operations (Khan et al., 2020). Indeed, firms willing to engage into CE must

> design their business model, including the value network, the value propositions towards customers and the relationships with the supply chain partners, to achieve the best outcomes (Centobelli et al., 2020). (Sohal & De Vass, 2022, p. 594)

Extant literature focusses on specific aspects of CE, such as the impact on product design and processes (e.g. Marconi et al., 2019), on managerial practices and value creation (e.g. Goyal et al., 2018), as well as on the barriers and challenges related to CE implementation (e.g. De Jesus & Mendonça, 2018), among others. Prior research showed how large firms successfully embraced the shift towards CE and how they benefit from it (e.g. Calzolari et al., 2021). Our knowledge about SMEs navigation through the process remains limited despite the fact that they constitute more than 90% of the world economy (Dey et al., 2020). Extant literature falls short in terms of explaining how SMEs design and/or adapt their business model according to the CE principles (Centobelli et al., 2020; Dey et al., 2020). The question remains, however, of critical importance as SMEs see their strategic choices limited by their lack of resources and their liabilities of foreignness, smallness and newness (e.g. Hollender et al., 2017).

This chapter aims at explaining how SMEs integrate CE principles in their business models and how it contributes to meeting the SDGs. We conducted a case study with a French start-up Panafrica producing African-inspired shoes. We highlight the main drivers, managerial practices and collaborations engaged by SMEs to generate economic and non-economic value. More specifically, we point the key role of managerial vision and commitment to achieve sustainability, and the importance of building collaborative and long-term-oriented relations with suppliers (to gain in frugality and creativity) and with stakeholders (to explain the added-value related to CE and change consumers' habits). We demonstrate how embracing the CE perspective fits with SMEs' resource scarcity dilemma and how it can participate in boosting local communities through the development of economic activities, the promotion of safe and fair working condition as well as of social mobility through regular employee trainings.

The rest of the chapter is structured as follows. After presenting our literature review, we describe the methodology selected to conduct our research. We introduce our case study before highlighting our results, discussion and the theoretical and managerial implications of our work. We conclude by mentioning the limits and perspectives for future research.

2. LITERATURE REVIEW

Scholars, practitioners and governments have been strongly advocating the benefits of CE implementation (Khan et al., 2021; Merli et al., 2018). Confident in its viability and necessity, they perceive CE as a scalable growth model to enhance resource productivity, overcome global challenges (Khan et al., 2020) and reach objectives such as carbon neutrality (Sohal & De Vass, 2022). Interestingly, the richness of CE makes it at the same time an easily understandable but hardly operationalizable concept. The blurriness of the concept associated with the plurality of definitions constitutes a barrier to advance knowledge in the field, as conceptually different understandings might generate inconsistent or misleading results (Kirchherr et al., 2017).

Based on the analysis of 114 definitions identified in the literature, Kirchherr et al. (2017) conceptualize CE as

> an economic system that replaces the 'end-of-life' concept with reducing, alternatively reusing, recycling and recovering materials in production/distribution and consumption processes. It operates at the micro level (products, companies, consumers), meso level (eco-industrial parks) and macro level (city, region, nation and beyond), with the aim to accomplish sustainable development, thus simultaneously creating environmental quality, economic prosperity and social equity, to the benefit of current and future generations. It is enabled by novel business models and responsible consumers. (p. 229)

Firms are expected to put CE principles at the heart of their business model by adapting their value network and organizational structure, improving their relations with their supply chain partners and proposing a new type of value to customers (Centobelli et al., 2020; Lüdeke-Freund et al., 2019; Planing, 2015).

Firms decision to engage in CE and transform their business models often results from the combination of two elements, that is, (1) contextual factors (e.g. Centobelli et al., 2020) and (2) managerial capabilities and practices (e.g. Khan et al., 2021) leading to new value propositions (e.g. Urbinati et al., 2017).

2.1. Contextual Factors

Transitioning from a linear to a CE business model is often motivated by external factors such as the implementation of new regulations by policymakers or international institutions, pressures from stakeholders or the scarcity of natural resources, for example. It can be forced by law or motivated by a desire to produce differently and meet stakeholders' expectations. The EU CE Action Plan, the EU Green Deal or even the UN SDGs (Goyal et al., 2018) are examples of initiatives engaged at the supranational level to drive firms and populations towards CE.

Interestingly, other initiatives are also emerging, producing indicators that drive organizations into the transformation of their business models. The emergence of sustainable indicators in financial agencies illustrates this trend. Firms are expected to make longevity, renewability reuse, repair, upgrade, refurbishment, servitization, capacity sharing and dematerialization the core of their business model (Esposito et al., 2017). Centobelli et al. (2020) plead for the inclusion of contextual factors and implications in the analysis. Identifying the existing barriers and drivers at the organizational, institutional, economic, social and technological levels is of critical importance to foster the implementation of CE practices. In line with De Jesus and Mendonça (2018), they highlight the pivotal role played by policymakers, as their actions influence the adoption of CE. They can act as facilitators, helping firms remove barriers and implement dedicated actions (Kichherr et al., 2018) but can also slow the transition by making decisions that would not take the social, technological and market implications into consideration (or misestimate their impact).

2.2. Managerial Capabilities and Practices

If scholars agree on the potentiality of CE to generate a competitive advantage to firms, they also point the complexity of embracing such transformation as it requires deep organizational changes and the development of new practices. According to Mousavi et al. (2018), the ability and willingness of a firm to implement organizational changes such as transitioning to CE is dependent on its dynamic capabilities. Being able to reconfigure internal and external capabilities is of critical importance to respond to environmental changes (Teece et al., 1997) and maintain a competitive advantage by creating, transferring and capturing value (Urbinati et al., 2017). In a quantitative analysis conducted on a sample of 220 Italian manufacturing firms, Khan et al. (2021) show that sensing, seizing and reconfiguring capabilities act as drivers facilitating the implementation of CE practices. According to the authors, market monitoring and R&D are key routines that managers implement in order to identify CE opportunities – opportunities, thus, realized through strategic planning and technological upgrading. Sharma et al. (2021) go further by specifying that transitioning to CE requires both managerial and technological changes. Analysing the Indian context, authors show that strong managerial will, innovation technology upgradation, employee training, motivation and clear guidelines are key success factors for SMEs engaging in CE.

In a review of circular business models, Centobelli et al. (2020) distinguish managerial practices for CE based on the stage of value proposition (creation, transfer and capture). The value creation process in CE encompasses 'activities related to the creation of a product/service preserving economic and environmental value through the efficient usage of resources and closed loops' (Centobelli et al., 2020, p. 8). Several managerial practices have been identified in the literature on CE value creation, notably the 'Design for X' practices (i.e. redesigning products and processes to make them more circular), an efficient use of resources, product upgradability, lifecycle assessments and waste management (see Centobelli et al., 2020 for a detailed review). 'Design for X' practices aim at supporting the end-of-life products and the protection of the bioenvironment. It includes design for recycling, design for remanufacturing and reuse, design for disassembly and design for environment (Marconi et al., 2019; Urbinati et al., 2017). Implementing that kind of practices usually implies reconfiguring the supply chain and the production systems as well as developing new competencies (Mendoza et al., 2017) in order to be able to reduce the consumption of resources and energy, and to improve the product life cycle and waste management.

Value transfer conceives the managerial practices for customer segmentation and customer relationship management (Centobelli et al., 2020). Franzò et al. (2021) identify four types of managerial practices related to value transfer: (1) commercial and promotion initiatives (i.e. direct involvement of customers, extensive communication, etc.) (e.g. Geissdoerfer et al., 2017); (2) communication of circularity through all channels (i.e. in-store advertising, website, sales personnel, etc.) (e.g. Urbinati et al., 2017); (3) offering the right value to the right customers (i.e. customers carefully selected and deeply aware of the value proposed) (e.g. Bocken et al., 2016; Evans et al., 2017) and (4) management of changes in customer habits (or even changes of customers) due to selling circular products or services (e.g. Shao & Ünal, 2019; Wastling et al., 2018).

Finally, value capture in a CE system refers not only to the capitalization of additional revenue sources and intangibles, cost reduction and value preservation but also to the preservation of natural resources and social well-being (Centobelli et al., 2020; Geissdoerfer et al., 2017). To capture value in CE, firms transform the relationship they have with their customers by implementing new practices, such as take-back and product-service systems, the development of collaborative use, etc. Customers do not own products anymore but become rather temporary users of a good or a service (and pay consequently for their use): companies remain owners of their own products or services. The development of streaming platforms (such as Netflix or Spotify) of car leasing, etc. illustrates this trend. Firms are expected to collect back products from their customers so that they can be reused, redistributed, remanufactured or refurbished (Lewandowski, 2016). They are also encouraged to offer additional services to foster the circular virtue of their products/services, such as an increased longevity through maintenance, revalorization and repair; a possibility to combine or substitute products/services (e.g. Reim et al., 2015) and the development of collaborative use of products (e.g. Rosa et al., 2019). Implementing such initiatives implies that firms build close collaborations with their customers and suppliers. It requires substantial communication and promotion efforts to raise customers' awareness about the ethical, economic, social and environmental value of products or services made under CE principles (Urbinati et al., 2017). Table 1 summarizes the main drivers and managerial practices and capabilities identified in the literature.

2.3. SMEs and CE Practices

Despite its richness, the literature still falls short to explain how SMEs embrace CE (Dey et al., 2020; Sharma et al., 2021; Sohal & De Vass, 2022). At the exception of some studies (e.g. Dey et al., 2020; Rizos et al., 2016; Sharma et al., 2021;

Table 1. Drivers and Managerial Practices Related to CE Adoption.

		Description	References
Drivers	Contextual	Policy changes (new regulations) Stakeholders' pressure Resource scarcity Supranational guidelines and programmes Creation of indicators and evaluation of firms' sustainable performance by financial actors	Centobelli et al. (2020), De Jesus and Mendonça (2018), Esposito et al. (2017) and Goyal et al. (2018)
	Internal	Managers' desire to produce differently and to meet stakeholders' expectation Firms' dynamic capabilities and relations with suppliers	Khan et al. (2021), Mousavi et al. (2018) and Sharma et al. (2021)
Main actors	Policymakers	Provide guidance Encourage/facilitate CE Slow the transition towards CE	Centobelli et al. (2020), De Jesus and Mendonça (2018), Goyal et al. (2018) and Kichher et al. (2018)
	Stakeholders	Pressures to embrace CE	Centobelli et al. (2020), Lüdeke-Freund et al. (2019), Planing (2015)
	Suppliers	Participate (or not) in the transition	Urbinati et al. (2017)
Managerial practices	Value creation	Market monitoring and R&D Product and/or technology upgradations Employee training and motivation Creation of clear guidelines and policies Design for X (recycling, remanufacturing, reuse, disassembling, environment) Reconfiguration of the supply chain (life-cycle assessments, waste management, resource efficiency)	Centobelli et al. (2020), Khan et al. (2021), Marconi et al. (2019), Mendoza et al. (2017) and Sharma et al. (2021)
	Value transfer	Commercialization and promotion activities Multi-channel communication on CE practices and values Customer segmentation Change management in consumers' habits	Bocken et al. (2016), Evans et al. (2017), Franzò et al. (2021), Geissdoerfer et al. (2017), Shao and Ünal, (2019), Urbinati et al. (2017) and Wastling et al. (2018)
	Value capture	Take-back and product-service systems Collaborative use of products Subscription offers (rather than traditional buy/sell activities) Services and/or substitutes increasing product life-cycle	Centobelli et al. (2020), Geissdoerfer et al. (2017), Lewandowski (2016), Reim et al. (2015) and Rosa et al. (2019)

Sohal & De Vass, 2022), most research focussed on large and multinational firms. Scholars agree, however, on the fact that SMEs tend to be more vulnerable that multinational companies as they do not benefit from the same resources, reputation or networks. Understanding how small firms transform their business models (thus, their value proposal) and/or succeed in engaging in CE is of critical importance. It might enrich our understanding of the drivers and barriers faced and, thus, provide new insight to enhance SMEs' competitiveness.

Besides firm size, another important limitation to existing debates relates to the role and the impact of network and ecosystems in the adoption of CE. Indeed, existing research tends to be centred on firms, notably how they build/transform their business models, the role of institutions and stakeholders in the decision to engage and navigate through the process. However, firms are part of value networks and ecosystems that influence and can be influenced by their decisions. Understanding such entanglement is important for several reasons. Firstly, activities are more and more interconnected across the globe: firms are part of various networks who influence both their decision, access to resources and opportunities, etc. Engaging in CE requires not only investments and organizational changes but also support from stakeholders. Interestingly, the lack of support from the supply and demand networks has been recognized as major barriers preventing SMEs from engaging in CE (Rizos et al., 2016). Thus, analysis CE adoption from a value network rather than from a value chain perspective should shed new lights on the role of partners (drives, barriers) and the type of economic, environmental, ethic or even social value created among the network. These elements are of particular importance to understand how SMEs can contribute to act against climate change, protect the biosphere or even have a positive impact on local communities by sustaining local activities, etc. Therefore, practical demonstrations and narratives from SMEs that succeeded in engaging in CE are valuable to improve our comprehension of the phenomenon. In the next section, we present the methodology adopted.

3. METHODOLOGY

This exploratory study adopts a single in-depth case study approach. Single in-depth case studies proved to be a relevant methodology to understand how SMEs embrace the CE perspective and build or transform their business model accordingly (e.g. Zucchella & Previtali, 2019). We adopt Zucchella and Previtali (2019) abductive inferential approach to answer our research question. Abductive inferences allow to study new, uncommon or unknown situations (Gary, 2010) through inferences from observed facts (Richardson & Kramer, 2006). It 'has been employed in sustainability studies (Stubbs & Cocklin, 2008) to uncover new forms of organization and sustainable business models in particular' (Zucchella & Previtali, 2019, p. 276). Abduction build constant bridges between theory and field work, which improve the theoretical strength of case analyses. Drawing upon existing literature on circular business models, we propose to advance current knowledge through the in-depth analysis of an 'exemplar' case study (Patton, 2002). Indeed, the case has been purposefully selected to illustrate the content of our study, that is, how SMEs implement the CE principles and, more precisely, focus on the drivers and managerial practices allowing firms to embrace the sustainable perspective.

We focused on the fashion industry for two reasons. Firstly, the industry is known for its negative consequences on the environment (use of chemicals, overconsumption of natural resources, lack of recyclability of fast fashion items, etc.) and the poor conditions of workers in fabrics located in developing countries. This is particularly the case in shoe manufacturing, where several multinationals have been accused of modern slavery, child labour, etc. Secondly, the industry knows a growing number of actors (new or existing) turning to CE in response to new consumer attitudes and stakeholders' expectations.

Our case firm has been selected based on a two-step logic. We identified firms producing shoes known for their eco-friendly approach in France and found 28 companies. We refined our search to include only small firms having international activities and excluded four firms. In the end, we chose one SME (Panafrica) whose characteristics were aligned with our research objectives: a small firm operating in a polluting industry (the textile industry), acting for change by creating sustainable product and processes, by building strong relationships with its stakeholders and generating both economic and non-economic value. Furthermore, the co-founders were able for interviews and willing to share data with the researchers.

From June to November 2021, four in-depth interviews were conducted with the co-founders and CEOs of the brand, lengthening from 1h30 to 3h30. Open-ended questions were asked to the interviewees, with a particular focus on the history of the brand, its eco-friendly approach, the relations developed with suppliers and other stakeholders, the role of each partner in the production process. We also asked questions related to the business model of the firm, the challenges faced and ended with the coming projects. The data collected allowed us to map the production process and identify how the circular approach is materialized in the business model. It also led us to understand when and how local partners intervene in the process, and how the SME contribute – through its action – to shape the local environment in order to have a positive impact on local communities. Analysed under the SDG lens, our case study illustrates how SMEs can – through the production and promotion of fair and sustainable products (SDG 12) – act to reduce poverty (SDG 1), ensure the access to education (SDG 4) and promote economic development through decent work (SDG 8). The next session presents the case study.

4. PANAFRICA: STORY OF AN ETHNIC AND COMMITTED BRAND

Panafrica is a French start-up created in 2015 by Hugues Didier and Vulfran de Richoufttz. It is specialized in the design, manufacture, sales and recycling of

African-inspired shoes for men and women. The headquarters are based in Paris. In 2022, the start-up has 10 employees and realized a turnover superior to 1 million euros. Shoes are sold online at prices stemming from 79 to 149 euros.

4.1. Creation on the Brand

Panafrica was born from the passion of the two founders for African cultures and the desire to create a company respectful of people and the environment. Nothing predestined the two leaders to create a shoe brand. Hugues Didier and Vulfran de Richoufftz met at the university, while following a master in Urbanism and Territorial Planning. They started their careers in microfinance (Hugues) and real estate planning (Vulfran) before creating their own company, unsatisfied about the loss of meaning of their job and the misalignment of their professional and personal values.

Hugues Didier explains that:

> I didn't see myself in urban planning so I switched to a business school – but did not finish it. My goal was to travel, and I spent nine months in Singapore and then six in Morocco doing my studies, doing strategy consulting. I discovered and loved Morocco but had no clear professional idea. The only thing that I knew was that I wanted to go back to Africa for a life experience.

His interest for Africa stems from a three-year position in Senegal as a business developer in an Ivorian microcredit institution. This experience led him to build a network with actors from the agricultural and textile sectors as well as to better understand the specificities of the local context.

Panafrica was also born from the entrepreneurs' interest for African wax fabrics and the desire to create a committed brand promoting a shift to a fairer and more sustainable world. Despite their lack of experience in the fashion industry, the co-founders decided to create ethnic shoes.

> We chose the shoe industry first because we both like shoes, then what we find interesting is that we can reach a wider public. Everybody wears shoes, every day. It is a fashion accessory where we can probably allow ourselves a little more fantasy and originality. Creating ethnic shoes from A to Z allowed us to build a committed and global brand: something easily recognizable and that customers would be proud to wear. (Vulfran de Richoufftz)

The textile industry is known for its negative impact on the environment and societies. The overconsumption of resources and chemicals, the lack of safe working conditions for suppliers/subcontractors or even the non-recyclability of many clothes make textile one of the most polluting and decried industry in the world. The accident that happened in the Rana Plaza in 2014 (Bangladesh) provoked a shock worldwide, unveiling the working conditions of employees in countries where the absence of social protection often constitutes a location determinant for multinationals.

Panafrica has the social and environmental responsibility the core of its business model. This commitment can be observed at two levels: the supplier relation management and the production.

4.2. A Committed Brand

In 2016, the two co-founders went to French-speaking African countries to identify potential partners, using the network built by Hugues Didier in the past. The alignment of values, the promotion of a traditional expertise, a strong social commitment and the desire to engage in long-term cooperation are key components in the selection of local partners. The same year, four partnerships were formed with African social enterprises or family firms. Partners are been selected based on their complementarity (to avoid competition among them) and the working conditions they offer to their employees: the Xoobma cooperative (Burkina Faso), Uniwax (Ivory Coast), L'Atelier d'Esther (Ghana) and Hicham's Workshop (Morocco).

> We went to Burkina Faso and visited a women's cooperative that seduced us immediately because it is in phase with our values. The women who work there learn to dye and weave four days a week, and also take courses to learn to read, write, count during the fifth day. The machines are all traditional, so the cooperative does not need a lot of electricity to operate. It is a real plus because it reduces our impact and the interruptions we would have to face due to power shortage. The objective is to give them the skills they need to become autonomous and be able to start their own business if they wish. In Ghana, we work with a person called Esther who masters the technique of printing batik fabrics and who is engaged in the defence of her traditional know-how, etc. Having a responsible approach implies treating your suppliers with respect, i.e. paying them the fair price, not putting them under pressure nor to make them dependent from your decisions. We anticipate our orders over three to four years and we pay the cotton at the fair price – not the market price – to allow this cooperative to operate with respect for women workers. The idea behind all this is also to allow our partners to live with dignity and to preserve their expertise.

The decision to anticipate orders on the long-term allows the brand to ensure its partners a stable flow of activities, thus reducing the uncertainty generated by the volatility and the seasonality of the fashion industry.

The social commitment of the brand is also reflected by the attention paid to the working conditions of offered by each partner to their employees. To build a safe and collaborative working environment, employees have an employment contract and a guaranteed minimum wage in order to ensure that they benefit from social rights and that they work in safe conditions. Moreover, they benefit from an increased salary for each additional hour worked (+20% with a maximum of 2 additional hours per week). In the same vein, each one benefit from a minimum of 3-week paid vacation per year and a health coverage, increasing people's wealth and ensuring that they can access to the medical assistance they need in case of health problem. Finally, they benefit from regular trainings so that they can develop new skills and move up the social ladder. Besides protecting the brand's reputation, the specific conditions offered to the partners' employees aim at ensuring the business continuity, protection know-how by limiting the turnover and, finally, to participate in building strong local communities. The co-founders explain that:

> It seems simple and normal for us, Europeans, to benefit from these conditions but it is far from being a norm in the rest of the world. If you make sure that people can access to healthcare when they need it, that they can rest when they feel tired, etc., you also ensure that families will not fall into poverty in case a member cannot not access to medical aid if he/she has an accident, feels sick, etc. It is a win-win relationship: the turnover – as well as the incident rate – is low and we offer employees the possibility to climb the ladder.

At the production level, the sustainable approach of the brand is observable at two stages. Firstly, attention is been paid to the raw materials used, notably their origin and production conditions. Panafrica anchored its business model in the selection of raw materials produced locally and organically. Indeed, avoiding the overconsumption of water and the use of chemicals is a way to ensure a good and long-term cohabitation of farms/fabrics and local populations. Moreover, using cotton produced locally allows the start-up to avoid gas emissions as well as to participate in the creation of a sustainable ecosystem in the area. As mentioned by one of the co-founders,

> we could probably find cheaper cotton abroad and import it to the fabric but it is contrary to our principles: it would create a competition that local farmers would not be able to face, thus destabilize local economies. Furthermore, the gas emissions would be scandalously high … and if you add all the direct and indirect costs associated with this operation, I am not sure that it remains profitable. Firms have to understand that it is in everybody's interest today to sustain local ecosystems instead of pressuring suppliers for cheaper raw materials. You save time, money and you participate in the growth of an ecosystem.

Secondly, efforts are being engaged at different levels of the value chain to maximize the recycling and reusing possibilities of shoes and textiles. The design is kept simple and developed in collaboration with the African partners to benefit from their ideas and expertise. The number of collections limited to two per year in order to reduce the number of prototypes and, thus, the overconsumption of resources.

> The negative impact of the fashion industry comes from the raw materials and chemicals used, but also by the number of collections they sort each year: if you launch 6, 8 or 10 collections, it means that you will have to do a lot of prototypes, produce a lot of goods and destroy a lot of them because they will be outdated rapidly, your suppliers will be under pressure, the quality will not be there, etc. When you focus on two collections per year, you limit this negative impact and you also create expectations and desire among your customers.

The manufacturing process has been reorganized in order to limit as much as possible the waste of resources: prototypes are sold at cost price to avoid their destruction, the scraps are transformed into accessories and sold online or in the showroom. Recycling is encouraged through a deposit mechanism: when customers by shoes, a 7-euro deposit is included in the price. They are incited to send their worn shoes back to Panafrica (for free) and get their deposit back as a voucher. When possible, the shoes are refurbished and offered to charities. In the opposite case, shoes are disassembled and recycled: fabrics are made available for industrial use and soles are crushed and re-integrated in new Panafrica shoes.

> We found a company that developed a real expertise in disassembling and crushing shoes without using chemicals. It is completely in line with our values and that it helps us to reduce the costs associated with raw materials.

Interestingly, and despite the apparent adequation between the brand's values and current social trends, the two co-founders still face price-related reluctances from some customers. Communication and educational efforts have to be engaged to explain to customers the positive outcomes associated with eco-friendly products.

> When we present our products, we tend to have remarks about to their price, as 80 to 140 euros seems expensive to some customers for a pair of shoes. It is paradoxical, when you know that people do not hesitate to pay 150 or event more than 200 euros for a pair of snickers, even when they know the conditions under which they are produced. It is not entirely their fault, because most of us do not really know the real costs of the products we buy: we want good products, but at the cheapest price possible. Thus, we take time to explain, we communicate on social medias, we make videos with our partners to show how things are made, etc. It is also part of Panafrica's DNA. (Vulfran de Richoufftz)

5. DISCUSSION

The case study shows that, by making CE the heart of its business models, Panafrica does not only create, transfer and capture value for itself but also for its partners and the ecosystems in which it operates. By favouring local producers and ensuring that suppliers (and their employees) benefit from safe and fair working conditions (SDG 8) as well as regular trainings (SDG 4), the firm support the local economy and participate reducing poverty (SDG 1). Table 2 presents a synthesis of the drivers, actors and managerial practices identified in our case study.

Our case study confirms prior findings (Sharma et al., 2021) and shows that managerial willingness and awareness towards SDGs and CE are the key foundations of the actions engaged by the co-founders. In our case, indeed, the decision to create an eco-friendly brand results less from external pressures than from a desire to participate in building a fairer society. Our results complement Esposito et al. (2017) by showing that contextual factors can be enriched to include generational ones: a desire to make things differently and propose alternative business models that change the relations established with stakeholders and that would combine profitability and social responsibility.

In line with Urbinati et al. (2017) and Centobelli et al. (2020), we found several managerial practices have been implemented to create, transfer and capture economic value through the reduction of the ecological footprint of brand. Value is created through design for X practices, waste management and the use of traditional processes requiring limited energy. Promotion efforts are engaged in order to raise customers' awareness about the positive impact of Panafrica's production process. Transparency about the actions engaged with local partners, the audits performed by external agencies, the challenges faced and the upcoming projects is ensured through regular communication on social media, online reports and videos. In line with Franzò et al. (2021), we found that several managerial activities were engaged in order to ensure value transfer: commercial and promotional initiatives (Geissdoerfer et al., 2018), communication of circularity through different channels (Urbinati et al., 2017) and customers' selection. However, we observed only limited management of change in customers' habits, mainly regarding used shoes (value creation). This limited number of actions engaged to change customers' habits can be explained by the newness of the brand and that customers acquiring eco-friendly shoes are already aware about the values promoted by the brand.

Table 2. Drivers, Actors and Managerial Practices Identified in the Case Study.

		Description
Drivers	Contextual	Social demand for fairer products
	Internal	Managerial will: • Interest for African cultures and fabrics • Desire to have a positive impact on the environment and local communities • Desire to create a firm with human values and to produce differently Mobilization of existing networks
Managerial practices	Value creation	Panafrica 1. Suppliers management • Selection of partners based on their expertise, their complementarity and social commitment • Development of long-term relationships • Measures to ensure safe and fair working conditions among suppliers' employees (including regular training) + audits by independent bodies 2. Sourcing/procurement • Use of organic raw materials produced locally to sustain local ecosystems • Anticipation of order to avoid putting pressure on suppliers 3. Offer • Reduced number of collections (2 per year) • Creation of accessories made of scraps • Sales of prototypes at production costs to avoid destruction Panafrica and its' suppliers: collaborations through design to create sustainable products: • Design for recycling, reusing and disassembling
	Value transfer	Transparent communication with stakeholders • Actions engaged to limit the environmental impact • Social commitment and initiatives implemented • Barriers and areas for improvement Collaboration with suppliers for ad campaigns (suppliers as brand ambassadors)
	Value capture	Implementation of a 7-euro deposit to encourage refurbishing, recycling and/or disassembling Waste management: Reuse of used materials (refurbished) to limit the use of new resources

Value is captured through a take-back system where the brand collects used shoes to transform them so that they can be reused or disassembled and reintegrated in the manufacturing process. The deposit customers pay when acquiring the product, associated with the free shipment of used shoes aim to improve not only users' sensitivity (i.e. change their habits) but also the overall circularity of activities. Interestingly, we show that, by integrating the value network into the decision process, the brand does not only make its own activities circular but also capture economic and social value for local ecosystems. In line with Geissdoerfer et al. (2018), our case study shows that SMEs can capture economic and social value in CE systems by building collaborative relationships with their suppliers, favouring local production through traditional and frugal manufacturing processes. We enrich Sharma et al. (2021) by showing that the firm does not only engage internal training, upgrading, etc. but also imposes its local partners to do so locally to reach its CE objectives. Said differently, decisions are made on the basis of the whole value network and not only focussed on the SME's own value chain. The objective is not only to increase the profitability and circularity of Panafrica's activities but also to generate a positive impact on local communities. These results show the importance of integrating value networks and local ecosystems in the analysis of CE-based business models to better understand how the interdependencies existing between SMEs and local communities (or ecosystems) shape organizations and actors and how they co-evolve. By doing so, scholars, policymakers and managers should be in a better position to understand how CE shape SMEs' market and nonmarket strategies, how firms influence their ecosystems and vice versa and how they adapt their capabilities to make CE the basis of their competitive advantage.

6. THEORETICAL CONTRIBUTIONS AND PRACTICAL IMPLICATIONS

Based on the above findings and related discussion, this section highlights the potential theoretical contribution and practical implications of our study.

6.1. Theoretical Contributions

Our findings offer new insights on how SMEs embrace the CE perspective and build their business model accordingly. We reported their vision, innovative relational and managerial practices, and how they made CE principles the core of their business model. Firstly, we contribute to existing debates (Sohal & De Vass, 2022) by providing empirical evidence of successful CE implementation and practices among SMEs. We confirm the key role of managerial willingness, commitment and vision in the decision to engage in CE. We also highlight how the implementation of CE principles participates in transforming relations with suppliers, from situations of domination to collaborative, fairer and long-term oriented exchanges.

Secondly, we highlight the importance of local communities in the development of CE businesses, being providers of resources, skills and new frugal production techniques helping SMEs reduce their footprint. Our research extends existing knowledge on the influence of contextual factors on CE strategies by showing the existence of interdependencies between SMEs and local ecosystems: firms implementing CE strategies in collaboration with local actors generate positive externalities for local communities, but local ecosystems also participate in shaping firms' processes and strategies. In sum, CE practices and processes allow firms and their stakeholders to capture, transfer and create both economic, social and ecological values.

6.2. Practical Implications

We believe that the positive insights from how the start-up Panafrica made CE the core of its business network may encourage entrepreneurs and policymakers to engage in the same way. In line with prior research, our result shows that CE can generate viable sources of revenue and has the potential to constitute the foundation base for competitive advantage. This is particularly true for SMEs who, due to their resource scarcity, often operate in frugal contexts. However, managers must define a clear vision and ensure the alignment of firms' values, decisions and actions (e.g. partner selection, supply, manufacturing processes, etc.) with the CE principles. Our study notably revealed that the key role local partners can have on the implementation of frugal production processes, the design of new products with limited ecological impact, notably. A sustainable approach to CE includes resource-sharing activities among partners, facilitated by the development of long-term relations with suppliers.

From a social point of view, our results demonstrated the positive outcomes ensuing from CE on local communities, stakeholders and SMEs. Actors mutually benefit from the collaborations engaged and benefit from the environmental, economic and social externalities generated by the development of circular – and sustainable – activities.

7. CONCLUSION

This research aims to understand how SMEs embrace the CE perspective and how it can participate in responding to the UN SDGs. Drawing upon the business model and CE literatures, we identified the driving factors leading SMEs to engage in CE as well as the related managerial practices. Through the narration of an SME's journey towards CE, we highlighted the key role of managerial vision and commitment to achieve sustainability. We also shed light on the importance of building collaborative and long-term-oriented relations with suppliers (to gain in frugality and creativity) and with stakeholders (to explain the added-value related to CE and change consumers' habits). We demonstrated how embracing the CE perspective participate in boosting local communities through the development of economic activities, the promotion of safe/fair working condition and of social mobility through regular employee trainings.

Our study, exploratory by nature due to its comprehensive nature, is not exempted from limits. The case studied has been specifically selected to serve as a successful example of CE implementation. Future research must include a wider and more diverse sample of successful and unsuccessful SMEs in order to deepen our knowledge related to the drivers and barriers SMEs faced when implementing or transitioning towards CE. To increase the generalizability of our results, we suggest to replicate the study including firms from other industries and regions to identify potential regional and/or industrial specificities. Finally, using mixed methods should be useful to extend current understanding and knowledge of the CE practices of SMEs, the barriers and driving forces, the implementation process as well as the type of value created and how it participates in (re)designing firms' competitive advantage.

REFERENCES

Bocken, N. M., De Pauw, I., Bakker, C., & Van Der Grinten, B. (2016). Product design and business model strategies for a circular economy. *Journal of Industrial and Production Engineering*, *33*(5), 308–320. https://doi.org/10.1080/21681015.2016.1172124

Calzolari, T., Genovese, A., & Brint, A. (2021). The adoption of circular economy practices in supply chains – An assessment of European multi-national enterprises. *Journal of Cleaner Production*, *312*, 127616.

Centobelli, P., Cerchione, R., Chiaroni, D., Del Vecchio, P., & Urbinati, A. (2020). Designing business models in circular economy: A systematic literature review and research agenda. *Business Strategy and the Environment*, *29*(4), 1734–1749. https://doi.org/10.1002/bse.2466

Chizaryfard, A., Trucco, P., & Nuur, C. (2021). The transformation to a circular economy: Framing an evolutionary view. *Journal of Evolutionary Economics*, *31*(2), 475–504. https://doi.org/10.1007/s00191-020-00709-0

De Jesus, A., & Mendonça, S. (2018). Lost in transition? Drivers and barriers in the eco-innovation road to the circular economy. *Ecological Economics*, *145*, 75–89. https://doi.org/10.1016/j.ecolecon.2017.08.001

Dey, P. K., Malesios, C., De, D., Budhwar, P., Chowdhury, S., & Cheffi, W. (2020). Circular economy to enhance sustainability of small and medium-sized enterprises. *Business Strategy and the Environment*, *29*(6), 2145–2169. https://doi.org/10.1002/bse.2492

Esposito, M., Tse, T., & Soufani, K. (2017). Is the circular economy a new fast-expanding market?. *Thunderbird International Business Review*, *59*(1), 9–14. https://doi.org/10.1002/tie.21764

Evans, S., Vladimirova, D., Holgado, M., Van Fossen, K., Yang, M., Silva, E. A., & Barlow, C. Y. (2017). Business model innovation for sustainability: Towards a unified perspective for creation of sustainable business models. *Business Strategy and the Environment*, *26*(5), 597–608. https://doi.org/10.1002/bse.1939

Franzò, S., Urbinati, A., Chiaroni, D., & Chiesa, V. (2021). Unravelling the design process of business models from linear to circular: An empirical investigation. *Business Strategy and the Environment*, *30*(6), 2758–2772. https://doi.org/10.1002/bse.2892

Geissdoerfer, M., Savaget, P., Bocken, N. M., & Hultink, E. J. (2017). The circular economy – A new sustainability paradigm?. *Journal of Cleaner Production*, *143*, 757–768. https://doi.org/10.1016/j.jclepro.2016.12.048

Geissdoerfer, M., Vladimirova, D., & Evans, S. (2018). Sustainable business model innovation: A review. *Journal of Cleaner Production*, *198*, 401–416

Goyal, S., Esposito, M., & Kapoor, A. (2018). Circular economy business models in developing economies: Lessons from India on reduce, recycle, and reuse paradigms. *Thunderbird International Business Review*, *60*(5), 729–740. https://doi.org/10.1002/tie.21883

Hollender, L., Zapkau, F. B., & Schwens, C. (2017). SME foreign market entry mode choice and foreign venture performance: The moderating effect of international experience and product adaptation. *International Business Review*, *26*(2), 250–263. https://doi.org/10.1016/j.ibusrev.2016.07.003

Khan, O., Daddi, T., & Iraldo, F. (2020). Microfoundations of dynamic capabilities: Insights from circular economy business cases. *Business Strategy and the Environment*, *29*(3), 1479–1493.

Khan, O., Daddi, T., & Iraldo, F. (2021). Sensing, seizing, and reconfiguring: Key capabilities and organizational routines for circular economy implementation. *Journal of Cleaner Production*, *287*, 125565.

Kirchherr, J., Reike, D., & Hekkert, M. (2017). Conceptualizing the circular economy: An analysis of 114 definitions. *Resources, Conservation and Recycling*, *127*, 221–232. https://doi.org/10.1016/j.resconrec.2017.09.005

Kirchherr, J., Piscicelli, L., Bour, R., Kostense-Smit, E., Muller, J., Huibrechtse-Truijens, A., & Hekkert, M. (2018). Barriers to the circular economy: Evidence from the European Union (EU). *Ecological economics*, *150*, 264–272.

Lewandowski, M. (2016). Designing the business models for circular economy – Towards the conceptual framework. *Sustainability*, *8*(1), 43. https://doi.org/10.3390/su8010043

Lüdeke-Freund, F., Gold, S., & Bocken, N. (2019). A review and typology of circular economy business model patterns. *Journal of Industrial Ecology*, *23*(1), 36–61. https://doi.org/10.1111/jiec.12763

Marconi, M., Germani, M., Mandolini, M., & Favi, C. (2019). Applying data mining technique to disassembly sequence planning: A method to assess effective disassembly time of industrial products. *International Journal of Production Research*, *57*(2), 599–623. https://doi.org/10.1080/00207543.2018.1472404

Mendoza, J. M. F., Sharmina, M., Gallego-Schmid, A., Heyes, G., & Azapagic, A. (2017). Integrating backcasting and eco-design for the circular economy: The BECE framework. *Journal of Industrial Ecology*, *21*(3), 526–544. https://doi.org/10.1111/jiec.12590

Merli, R., Preziosi, M., & Acampora, A. (2018). How do scholars approach the circular economy? A systematic literature review. *Journal of Cleaner Production*, *178*, 703–722. https://doi.org/10.1016/j.jclepro.2017.12.112

Mousavi, S., Bossink, B., & van Vliet, M. (2018). Dynamic capabilities and organizational routines for managing innovation towards sustainability. *Journal of Cleaner Production*, 203, 224–239.

Ormazabal, M., Prieto-Sandoval, V., Puga-Leal, R., & Jaca, C. (2018). Circular economy in Spanish SMEs: Challenges and opportunities. *Journal of Cleaner Production*, *185*, 157–167. https://doi.org/10.1016/j.jclepro.2018.03.031

Patton, M. Q. (2002). *Qualitative research & evaluation methods* (3rd ed.). Sage Publications.

Planing, P. (2015). Business model innovation in a circular economy reasons for non-acceptance of circular business models. *Open Journal of Business Model Innovation*, *1*, 1–11.

Reim, W., Parida, V., & Örtqvist, D. (2015). Product–service systems (PSS) business models and tactics—A systematic literature review. *Journal of Cleaner Production*, *97*, 61–75. https://doi.org/10.1016/j.jclepro.2014.07.003

Richardson, R., & Kramer, E. H. (2006). Abduction as the type of inference that characterizes the development of a grounded theory. *Qualitative Research*, *6*(4), 497–513. https://doi.org/10.1177/1468794106068019

Rizos, V., Behrens, A., Van der Gaast, W., Hofman, E., Ioannou, A., Kafyeke, T., & Topi, C. (2016). Implementation of circular economy business models by small and medium-sized enterprises (SMEs): Barriers and enablers. *Sustainability*, *8*(11), 1212. https://doi.org/10.3390/su8111212

Rosa, P., Sassanelli, C., & Terzi, S. (2019). Towards circular business models: A systematic literature review on classification frameworks and archetypes. *Journal of Cleaner Production*, *236*, 117696. https://doi.org/10.1016/j.jclepro.2019.117696

Shao, J., & Ünal, E. (2019). What do consumers value more in green purchasing? Assessing the sustainability practices from demand side of business. *Journal of Cleaner Production*, *209*, 1473–1483. https://doi.org/10.1016/j.jclepro.2018.11.022

Sharma, N. K., Govindan, K., Lai, K. K., Chen, W. K., & Kumar, V. (2021). The transition from linear economy to circular economy for sustainability among SMEs: A study on prospects, impediments, and prerequisites. *Business Strategy and the Environment*, *30*(4), 1803–1822.

Sohal, A., & De Vass, T. (2022). Australian SME's experience in transitioning to circular economy. *Journal of Business Research*, *142*, 594–604. https://doi.org/10.1016/j.jbusres.2021.12.070

Stubbs, W., & Cocklin, C. (2008). Conceptualizing a "sustainability business model". *Organization & Environment*, *21*(2), 103–127. https://doi.org/10.1177/1086026608318042

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, *18*(7), 509–533. https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z

Ünal, E., Urbinati, A., Chiaroni, D., & Manzini, R. (2019). Value creation in circular business models: The case of a US small medium enterprise in the building sector. *Resources, Conservation and Recycling*, *146*, 291–307. https://doi.org/10.1016/j.resconrec. 2018.12.034

Urbinati, A., Chiaroni, D., & Chiesa, V. (2017). Towards a new taxonomy of circular economy business models. *Journal of Cleaner Production*, *168*, 487–498. https://doi.org/10.1016/j.jclepro.2017.09.047

Wastling, T., Charnley, F., & Moreno, M. (2018). Design for circular behaviour: Considering users in a circular economy. *Sustainability*, *10*(6), 1743. https://doi.org/10.3390/su10061743

Zucchella, A., & Previtali, P. (2019). Circular business models for sustainable development: A "waste is food" restorative ecosystem. *Business Strategy and the Environment*, *28*(2), 274–285.