A MULTIPLE FRAMEWORK APPROACH TO SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND ENTREPRENEURSHIP

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ABSTRACT

This chapter aims at discussing sustainable development goals (SDGs) and entrepreneurship from an economic and social perceptive. More specifically, this chapter aims at discussing the challenges facing small & medium enterprises (SMEs) applying the goal of ensuring sustainable consumption and production patterns to their day-to-day operations. In this chapter, a synthesis of a field of research related to sustainable developmental goals SDGs and SMEs is provided, with a focus on entrepreneurs who believe their SME needs to act as a “good corporate citizen” with the responsibility to (1) sustain the environment for future generations and (2) care about the well-being of society at large. This field of research is presented to identify important opportunities and challenges for entrepreneurs with SDGs within a Multiple Framework Approach.

Keywords: Sustainable development goals (SDGs); entrepreneurship; small & medium enterprises (SMEs); multiple framework approach; multinational approach; national approach

JEL Classifications: G30, L26; O10

Extant literature focuses on how firms are guided by sustainable development goals (SDGs), with a focus on multinational & national enterprises (MNEs)
rather than small & medium enterprises (SMEs) driven by entrepreneurship (George, Howard-Grenville, Joshi, & Tihanyi, 2016; Holt, 2011). However, it is estimated that (1) 99.9% of all enterprises in the United Kingdom (UK) and the United States of America (USA) are SMEs (BERR, 2008; Holt, 2011; SBA, 2007); (2) SMEs in the UK comprise 96% of the total number of enterprises, 33% of employment, and 23% of turnover (BERR, 2008; Holt, 2011); and (3) when considering the 9.2 million enterprises with up to nine employees in both economies, the opportunity for SMEs to deliver sustainable goods and services is remarkable (Holt, 2011).

Within the context of SMEs driven by entrepreneurship and SDGs, this chapter aims at presenting both an economic and social perceptive using a multiple framework approach (George et al., 2016). First, entrepreneurship is believed to be at the core of SMEs and to be an economic and a social phenomenon (Steyaert & Katz, 2004) with manifestations that vary according to a broader context (Al-Dajani, Carter, Shaw, & Marlow, 2015; Zahra, Wright, & Abdelgawad, 2014). Second, SDGs are believed to involve different stakeholders such as business, consumers, policy makers, researchers, scientists, retailers, media, and development cooperation agencies, among many other stakeholders (George et al., 2016).

According to Holt (2011), in 1991, Steven Bennett published one of the most influential books related to entrepreneurship resulting from the emerging environmental agenda of the late 1980s and early 1990s. Broadening and contextualizing the research agenda to environmental issues enabled researchers to have a more nuanced view of the potential for SMEs and entrepreneurship to act as a development tool within the emancipatory scope of SDGs (Al-Dajani et al., 2015). This is a significant theoretical aspect to address given the importance of SMEs and the understanding that SMEs face resource restrictions (i.e., including financial, human, and physical) which limit what they can explore in terms of sustainable goods and services (Holt, 2011).

Therefore, this chapter aims at providing a theoretical synthesis of the field of research related to SMEs and SDGs, with the objective of developing a multiple framework approach for entrepreneurs who believe their SMEs need to act as a “good corporate citizen” with the responsibility to: (1) sustain the environment for future generations; and (2) care about the well-being of society at large (i.e., SDG 12; George et al., 2016; United Nations, 2017a, 2017b).

The structure of the chapter is as follows: (1) in the Section 1, SDGs are presented; (2) in Section 2, the multiple framework approach is presented with a focus on synthetizing research on external, internal, and organizational resource’s factors that affect SMEs’ focus on SDGs; and (3) in Section 3, a discussion of the chapter is provided with inferences in respect to SMEs and SDGs, as well as a call for action with directions for future research.

The next section provides a literature review of the existent knowledge with a focus on SDG 12 from the United Nations (UN) which is related to the goal to “ensure sustainable consumption and production patterns.”
Sustainable Development Goals (SDGs) and Small & Medium Enterprises (SMEs)

The first step in understanding sustainability and entrepreneurship consists in defining SDGs from an economic and social perspective, as well as, in describing the role of the UN to set worldwide priorities up to 2030 (George et al., 2016; United Nations, 2017a, 2017b).

Multi-national and National Perspective: United Nations (UN) for SDGs

According to the UN, and more specifically their SDG section, sustainable consumption and production is about promoting resource and energy efficiency, as well as providing access to basic services for a better quality of life around the world (United Nations, 2017a, 2017b; SDG 12). The SDGs provided by the UN are believed to be pivotal for addressing the current global economic and social challenges facing entrepreneurs internationally and nationally (United Nations, 2017a, 2017b).

Historically, the millennium development goals (MDGs) preceded the SDGs (Griggs, 2013; Griggs et al., 2014; Kumar, 2016). First, in September 2000, the UN General Assembly adopted the Millennium Declaration, establishing a global partnership of countries committed to eight voluntary development goals to be achieved by 2015 (Kumar, 2016). The MDGs called for action to (1) eradicate extreme poverty and hunger; (2) achieve universal primary education; (3) promote gender equality and empower women; (4) reduce child mortality; (5) improve maternal health; (6) combat HIV/AIDS, malaria, and other diseases; (7) ensure environmental sustainability; and (8) develop a global partnership for development (Kumar, 2016). Despite the absence of a legally binding framework, the MDGs generated considerable public and policy support internationally and nationally (Griggs, 2013; Griggs et al., 2014; Vandemoortele, 2011). Although economic development in countries such as China has been a major factor, success was also explained by the use of measurable targets (Griggs et al., 2014; United Nations, 2012a). However, research showed that this functioning was at risk (Rockström et al., 2009; Steffen et al., 2011) and that further human pressures may lead to irreversible backlashes (e.g., diminishing food production, water shortages, extreme weather, ocean acidification, deteriorating ecosystems, and sea-level rise) (Barnosky et al., 2012; Lenton, 2011). As a consequence, Griggs et al. (2014) reports that, in 2012, at the UN’s Rio+20 conference, nations agreed to establish the SDG (United Nations, 2012b). Second, in July 2014, an open group was set up to work on the SDGs (i.e., with a focus on economic, social, and environmental issues) and proposed 17 goals with 169 targets (Kumar, 2016). The SDGs expanded on the MDGs and were endorsed by resolution at the UN Sustainable Development Summit in September 2015 (Kumar, 2016). Reaching beyond the MDGs, it was agreed that these SDGs should be universal with an anticipated 2030 target date (Griggs et al., 2014). George et al. (2016) aspired to encourage scholars to engage in tackling broader societal challenges through their collaborative
research and collective insight. Interestingly, George and Bock (2011), when focusing on innovation that benefits the disenfranchised, outlined opportunities for the development of theory and empirical research around this construct in the field of SMEs and entrepreneurship.

As a summary, multi-national and national stakeholders contribute to SDGs in supporting different countries globally to strengthen their capacity to move toward more sustainable patterns of consumption and production by 2030 (George et al., 2016; Griggs et al., 2014; United Nations, 2017a, 2017b). Also, SDGs are promoted by a wide range of stakeholders in the public and private sector, in order to foster economic growth through innovative ways at the multi-national and national level (George et al., 2016; Griggs et al., 2014; United Nations, 2017a, 2017b). This leads to the next section with a focus on a regional level.

Regional Perspective: Urban and Rural Communities for SDGs

According to Holt (2011), the Brundtland Report, in 1987, marked the emergence of the concept of “sustainable development” into public consciousness (WCED, 1987), alongside the idea that economic growth and environmental protection were not mutually exclusive. This period of the early 1990s saw an increasing focus on business opportunities with a green agenda (Holt, 2011). Traditional businesses were encouraged to transform their operations to reflect their concerns for environmental and social issues (Dyllick & Hockerts, 2002; Elkington, 1997; George et al., 2016; Hillary, 2000; Holt, 2000; Revell & Blackburn, 2004; Saunders, 1993). One expansion of this trend was that there were calls for the creation of more green SMEs (Bennett, 1991; Berle, 1991; Cohen, 2006; Larson, 2000). Another expansion of this trend was that there were calls for targets on socially and/or environmentally practices to be, not only determined at a multi-national or national level, but also at a regional level (Apostolopoulos & Liargovas, 2018; Apostolopoulos, Newbery, & Gkartzios, 2018). Indeed, despite the fact that climate change was discussed at a multi-national and national level, its impact was regional with specific differentiated consequences in urban and rural communities. As such, regional governance was perceived as essential to building support for the wider project due to the threat of climate change in different urban or regional communities (Liargovas, Apostolopoulos, Pappas, & Kakouris, 2017).

As described previously, it was estimated that 99.9% of all enterprises in the UK and the USA were SMEs (BERR, 2008; Holt, 2011; SBA, 2007). Some authors may argue that environmentally oriented entrepreneurship had a key role to play in sustainable development, as SMEs were typically smaller, more flexible, and faster moving. Alternative lifestyle choices offered opportunities for SMEs to both: (1) generate a healthy profit through a competitive advantage within a small niche market (i.e., ecopreneurship) and (2) meet goals associated with socially and/or environmentally responsible practices (Bennett, 1991; de Bruin & Lewis, 2005; Freimann, Marxen, & Schick, 2005; Holt, 2011; Ivanko, 2008; Linnanen, 2005; Walley & Taylor, 2002). Similarly, Tilley and Young
(2006) suggested that entrepreneurs were the true regional wealth generators of the future. Thanks to their flexibility (i.e., little pressures from tax payers and/or electors, as well as, little pressures for maximization of profit from shareholders), SMEs could focus on being a “good corporate citizen” in itself for the benefit of their urban or rural community (Tilley & Young, 2006). Thanks to wealth creation understood in a broader more radical way (i.e., wealth that goes beyond the narrow financial scope to incorporate environmental and social impact on the local community), SMEs could focus on “local sustainability” in itself (Tilley & Young, 2006).

As a summary, some argue that entrepreneurship may be considered as the most powerful transformational driver for the future, by offering a flexible and widespread structures for attaining and delivering the SDGs whilst fueling economic growth at a regional level. This leads to the next section with a focus on a multiple framework approach of SMEs and SDGs.

A MULTIPLE FRAMEWORK APPROACH

The second step in understanding sustainability and entrepreneurship consists in presenting a multiple framework approach of entrepreneurship and SDGs from an economic and social perceptive (George et al., 2016).

According to Kuratko, Morris, and Schindehutte (2015), it is important to understand the dynamics of entrepreneurship through a multiple framework approach. Indeed, although entrepreneurship is not a new phenomenon, attempts to study it in a systematic manner are only recent (Kuratko et al., 2015). The field of entrepreneurship developed as a business discipline by adapting conceptual frameworks from other fields such as sociology, psychology, anthropology, marketing, management, finance, organizational behavior, and even engineering (Kuratko et al., 2015).

First, a multiple framework approach to sustainability and entrepreneurship is related to the notion that economic systems are interconnected and interdependent (George et al., 2016). Indeed, the phenomenon known as interconnectedness of economic systems reinforces the idea that there is a need for SMEs with a sustainability agenda (Bair & Palpacuer, 2015; Banai & Sama, 2000; Kolk & Van Tulder, 2004; Rasche, de Bakker, & Moon, 2013) that manifest themselves through corporate codes of conducts and certification standards, as well as, collaborative and multi-stakeholders initiatives (Bartley, 2007; Levy & Kaplan, 2008; Nadvi & Wältring, 2004; Rasche, 2010; Rasche et al., 2013).

Second, a multiple framework approach to sustainability and entrepreneurship is related to the notion that economic systems are set up as networks (George et al., 2016). Indeed, the phenomenon known as networks of economic systems plays a role in the entrepreneurial process (Birley, 1986; Greve & Salaff, 2003). Research shows the importance of networks for entrepreneurs (Austin, Stevenson, & Wei-Skillern, 2006), SMEs (Lyon & Fernandez, 2012), and in wider processes of entrepreneurship and innovation. Participation of entrepreneurs in networks is linked to various positive outcomes for SMEs, as networks
play a role in the start-up stage or in the upscale stage of SMEs (Dacin, Dacin, & Tracey, 2011; Lyon & Fernandez, 2012).

Third, a multiple framework approach to sustainability and entrepreneurship is related to the social contexts of economic systems. Research shows that entrepreneurial antecedents and outcomes differ within different social contexts (George et al., 2016; Lumpkin, Moss, Gras, Kato, & Amezcua, 2013). For example, using an inputs–outputs framework, Lumpkin et al. (2013) demonstrated the relationships existing between four antecedents (e.g., social mission/motivation, opportunity identification, access to resources/funding, and multiple stakeholders) and three outcomes (i.e., social value creation, sustainable solutions, and satisfying multiple stakeholders) to five dimensions of entrepreneurial orientation (e.g., innovativeness, pro-activeness, risk-taking, competitive aggressiveness, and autonomy) (Lumpkin & Dess, 2015).

As a consequence, a multiple framework approach of sustainability and entrepreneurship is provided in the next sections, with a focus on entrepreneurs who believe their SMEs need to act as a “good corporate citizen” with the responsibility to (1) sustain the environment for future generations and (2) care about the well-being of society at large. This field of research is explored with (1) a set of external factors that stimulate SMEs’ sensitivity to environmental issues; (2) a set of internal factors that link SDGs with performance; and (3) the role of organizational resources in enhancing the impact of SDGs on performance.

**External Factors that Stimulate SMEs’ Sensitivity to SDGs**

SMEs belong to an economic system, which means that SMEs are interconnected and interdependent within a multiple framework approach as discussed previously. Approaching entrepreneurship from a multiple framework perspective, this section aims at discussing external stakeholders (e.g., governments, regulatory bodies, and other nongovernmental organizations) and the role they play in harnessing the sustainable orientation of SMEs.

First, one may explore external factors related to sustainable businesses in smart cities as well as rural communities. According to United Nations (2017a, 2017b), projections show that urbanization combined with the overall growth of the world’s population will add another 2.5 billion people to urban population by 2050, with close to 90% of the increase concentrated in Asia and Africa. As such, stakeholders are largely urban stakeholders (Abdoullaev, 2011; Colldahl, 2013; Couzineau-Zegwaard, Barabel, & Meier, 2013; Merli & Bonollo, 2014; Nijman, 2011; Vaquer & Saiz-Alvarez, 2016). Newbery, Siwale, and Henley (2017) explain that rural areas in the developed world are often regarded as in need of development or pre-industrial leftovers in a linear process of progress (Rostow, 1990). However, Apostolopoulos (2017) insists that the potential for rural areas to catch up with urban areas is increasing as technology continues to generate opportunities (Blusi, Asplund, & Jong, 2013; Prieger, 2013; Velaga, Beecroft, & Nelson, 2012) and rural areas attract investments in renewable energy production. As an example of urban importance, Hassan and Lee (2015)
refer to the paradox of the sustainable city. More specifically, Hassan and Lee (2015) believe that sustainability has become a much-needed target, especially considering the recent rapid urban sprawl and the subsequent exacerbation of social, environmental, and economic problems (United Nations, 2017a, 2017b). However, Hassan and Lee (2015) also believe that the problem lies in smart-cities setting unreasonable definitions of sustainability and making sustainability seemingly unattainable for SMEs. As an example of rural importance, Iagăru, Florescu, and Iagăru (2016) discuss how sustainable development of rural areas in Romania is related to the close interdependence of rural residents and entrepreneurs. Iagăru et al. (2016) identify external stakeholders that support the integration of sustainable business activities in rural areas with a focus on family business in agriculture, aquaculture, fishing, forestry, and even manufacturing. Iagăru et al. (2016) show how entrepreneurship ensure the diversification of the rural economy, while maintaining a balance between (1) the need to preserve and promote rural tradition and (2) the need for the modernization of the rural life. As another example of rural importance, Mshenga and Richardson (2013) explore small tourism enterprises in Kenya, with the idea that SMEs participation in tourism helps diversify income and contributes to poverty reduction. More specifically, Mshenga and Richardson (2013) highlighted how SMEs participation in eco-tourism in rural Kenya was related to a sustainable tourism development network, a regional economic development network, and an enhancement of rural livelihoods network.

Second, one may explore external factors related to pressures for internationalization. As an example, Acs and Terjesen (2013) focus on how “born local” sustainable SMEs make the choice of internationalization. The term “born local” as opposed to “born global” describes how new ventures are created from knowledge spillovers and other resources in a geographically bounded environment. Acs and Terjesen (2013) discuss two typical paths for internationalization: (1) a direct path (i.e., new ventures expand internationally) and (2) an intermediated path (i.e., new ventures and multinational firms create relationships in order to expand internationally). Acs and Terjesen (2013) find that the lesser the perceived costs of protecting intellectual property, transaction costs, and/or extraction costs for sustainable business developments, the more likely the new venture pursues a direct mode of internationalization. As another example, Pickernell, Jones, Thompson, and Packham (2016) offer insights into determinants of SME exporting. Pickernell et al. (2016) showed that determinants of SMEs exporting included (1) industry sectors; (2) age of SMEs; (3) characteristics of the owners-managers; and (4) SMEs’ resources (e.g., human capital, technology, and intellectual property). Interestingly, while an innovation focus was consistently found to be positively linked to exporting propensity, a growth focus was not (Pickernell et al., 2016).

Third, one may explore external factors related to the impact of private and public sector entrepreneurship. As an example, Leyden (2016) starts with the assumptions that (1) economic growth, most of all for sustainability, requires innovation and (2) innovation, most of all for sustainability, occurs through entrepreneurial action. Leyden (2016) then develops a national systems of
entrepreneurship (NSE) model. This model explores the role that NSE-guided public policy plays in improving the entrepreneurial environment for both private-sector and public-sector entrepreneurs. In the private sector, public policies focus on enhancing the creative development of entrepreneurship (Leyden, 2016). In the public sector, central direction and explicit planning are limiting, because of their inability to anticipate future actions and consequences (Leyden, 2016).

Finally, one may explore external factors related to university networks and education. As an example, Heblich and Slavtchev (2014) analyze the importance of social ties between academic entrepreneurs and universities (e.g., the founders of Google), for enabling and facilitating the access to academic knowledge and resources. Heblich and Slavtchev (2014) believe that being in the vicinity of a university provides cost-reducing advantages in accessing academic resources for startups that may become sustainable. Heblich and Slavtchev (2014) employ data on academic startups from regions with more than one university and find that the presence of the parent university influences academic entrepreneurs’ decisions to stay in a region (i.e., while other universities in the same region play no role in that decision). As another example, Swaim, Maloni, Napshin, and Henley (2014) explore different influences on students’ intentions and behaviors toward environmental sustainability with the idea that business educators need to produce the next generation of leaders for environmental entrepreneurship (Swaim et al., 2014). Environmental sustainability represents a polarizing topic with some students dismissing its importance and legitimacy (Swaim et al., 2014). Educators have the ability to teach environmental sustainability in order to reach diverse students mindsets (Swaim et al., 2014). Thus, to understand students’ behavioral influences, sustainability education may be explored, especially as it translates into environmental sustainability behaviors in the community through SMEs.

As a summary, according to Kuratko et al. (2015), it is important to understand the external dynamics of entrepreneurship through a multiple framework approach. The next section will focus on internal factors that may interact with these external factors.

**Internal Factors that Stimulate SMEs’ Sensitivity to SDGs**

Approaching entrepreneurship from a multiple framework perspective, this section aims at discussing the opportunities and challenges facing SMEs applying the goal of ensuring sustainable consumption and sustainable production patterns to their day-to-day operations. In this context, it is crucial to take into consideration the heterogeneity that exists among SMEs with regard to their internal environment, like information sources, barriers/stimuli, and attitude/behavior in relation to environmental issues.

Integrative views of SMEs capture the hybrid nature of SMEs when dealing with SDGs. First, research shows that SMEs tend to compartmentalize social and commercial logics at the core of their functioning. For example, Acs, Boardman, and McNeely (2013) explore Microsoft Corporation and Grameen
Bank, as even if their successes have been derived from social motivations, these highly innovative ventures have created significant economic value as well (Acs, Audretsch, Lehmann, & Licht, 2016). Second, this research shows that entrepreneurs integrate social and commercial logics and are selective about which elements of each logic to follow with a focus on strategies (Hockerts, 2015), governance practices, leadership styles (Maak & Stoetter, 2012), and internal processes (Acs et al., 2016). Third, an ethical perspective sheds light on (1) the ethical foundations and nature of SMEs and (2) the ethical considerations which in both theory and practice foster the tension between commercial/financial outcomes and social/environmental outcomes.

First, one may explore internal factors of social value related to entrepreneurs’ personality. As an example, Wagner and Maximilians (2012) address the link existing between pursuing sustainable entrepreneurial opportunities and social/environmental concerns for individuals behaving entrepreneurially. Using large-scale survey data to analyze how sustainability orientations relate to entrepreneurial intentions, Wagner and Maximilians (2012) observe that sustainability orientation has a positive impact on the pursuance of sustainability-oriented entrepreneurial opportunities, but not on entrepreneurial intentions. As another example, unlike much of the entrepreneurial literature that focuses on how to “grow” a business (Jackson, 2009), Holt (2011) has been focusing on how SMEs with environmental aspirations flourish in their local communities.

Second, one may explore internal factors associated to core values that denote respect for (1) the environment, as well as the recognition that the SME has to reduce any harmful effects on the environment; (2) standards of ethical behaviors and long-lasting commitment to protecting the environment; (3) the needs of external stakeholders (e.g., regulators, communities, buyers) with regards to the environment; and (4) the notion of being a “good corporate citizen” for future generations and society at large. As an example, Waldron, Fisher, and Pfarrer (2016) explore how entrepreneurs facilitate the adoption of new industry practices, including sustainable ones, through their core values. According to Waldron et al. (2016), entrepreneurs use rhetoric to facilitate the pervasive adoption of socially focused industry practices aligned with these values (Waldron et al., 2016). The nature of entrepreneurs’ rhetoric hinges on relationships with industries they seek to influence (Waldron et al., 2016). More specifically, entrepreneurs use rhetoric of sustainable identity to persuade industry members to adopt sustainable practices. As another example, according to Perkins, Lean, and Newbery (2017), aside from constructing a vision, communicating that vision to employees is arguably the most important part of the entire process. Indeed, research suggests that many SMEs fail to share “a common vision with all stakeholders” (Bruce & Picard, 2006) and visions are meaningless unless all stakeholders are connected to them in a profound way. According to Perkins et al. (2017), given the importance of shared vision in the articulation of strategic goals and the subsequent benchmarking and measuring of performance (Chell & Tracey, 2005), leadership roles in SMEs in terms of communicating and cascading the organizational vision is of crucial importance (McAdam, Moffett, Hazlett, & Shevlin, 2010).
Third, one may explore internal factors related to formal and informal control mechanisms. According to Perkins et al. (2017), a key contributor to success is the ideation process and the extent to which SMEs provide effective control mechanisms. On the one hand, quantitative literature shows that attempting to impose strict financial controls is the least innovative strategy (Hitt, Hoskisson, Johnson, & Moesel, 1996; Perkins et al., 2017) and practitioner literature shows that ideation can be hampered if tasks or projects are tightly framed (Perkins et al., 2017). On the other hand, some claim that an element of control is a vital driver of idea production (Leonard & Swap, 2005; Perkins et al., 2017). As an example, Perkins et al. (2017) argue that the right balance of control is necessary, as too much or too little monitoring leads to poor levels of innovation, since good ideas are not pushed through the decision-making chain (Perkins et al., 2017). As such, flexible control management systems typify the early stages of radical innovation projects by providing the structure for idea generation (Perkins et al., 2017). SMEs face specific additional pressures as compared to MNEs, including scarce resources, lack of skills, and need for flexibility (Hessels & Parker, 2013; Perkins et al., 2017). Entrepreneurs typically use reporting practices within internal control structures (e.g., Management accounting control systems or MACS) to improve the efficiency and effectiveness of their sustainable practices (Nicholls, 2009; Nicholls & Cho, 2006). As another example, research on SMEs recognizes the importance of managerialization and professionalization in the smoothing of sustainable succession structures (Marlow, Taylor, & Thompson, 2010; Rue & Ibrahim, 1996; Songini, Gnan, & Malmi, 2013). Entrepreneurs typically recognize sub-optimal practices that perpetuate social and environmental failure. Entrepreneurship acts as a social movement that (1) transforms societal frames by innovation at the macro-political level and (2) change organizational practices at the micro-internal level (Nicholls, 2009). As another example, Arroyo (2016) explores the process of institutionalization of sustainable university campuses in Quebec (Canada). More specifically, Arroyo (2016) examines how formal MACS change to support sustainable practices on campuses. Interestingly, Arroyo (2016) focuses on change of formal MACS through informal institutional entrepreneurship (i.e., institutional entrepreneurs seek to precipitate the deinstitutionalization of traditional business campus mindsets) and through new structural arrangements (i.e., sustainable campuses and eco MACS systems). Arroyo (2016) found that beyond the traditional forms of MACS (i.e., belief, boundary, diagnostic, and interactive roles), flexible eco-control systems could be utilized with the aim of altering the behavior of all stakeholders.

Finally, one may explore internal factors in terms of financial value. For example, Leonidou, Christodoulides, and Des Thwaites (2016) explore financial outcomes of an eco-friendly orientation in smaller manufacturing firms. Leonidou et al. (2016) report the results of their study conducted on 153 small-sized manufacturing units in Cyprus. Their findings confirmed the critical role of an eco-friendly orientation in enhancing the firm’s financial results, although this link was found to be stronger when the firm possessed adequate internal
resources and capabilities committed to environmental activities (Leonidou et al., 2016).

As a summary, according to Kuratko et al. (2015), it is important to understand the internal dynamics of entrepreneurship through a multiple framework approach. The next section will focus on organizational resources and capabilities that may interact with the internal and external factors explored previously.

Organizational Resources and Capabilities that Stimulate SMEs’ Sensitivity to SDGs

Approaching entrepreneurship from a multiple framework perspective, this section aims at discussing the opportunities and challenges facing SMEs applying the goal of ensuring sustainable consumption and sustainable production patterns to their day-to-day operations, by building on a resource-based view (RBV) to underscore the critical role of organizational resources and capabilities.

First, one may explore organizational resources related to an RBV. For example, Kellermanns, Walter, Crook, Kemmerer, and Narayanan (2014) describe RBV as one of the most influential perspective in strategic management. Entrepreneurship researchers are increasingly leveraging the RBV despite some important differences between entrepreneurship and strategic management, raising questions as to whether and to what extent the RBV needs to be adapted for the entrepreneurship field. As a first step toward answering this question, Kellermanns et al. (2014) focus on organizational resources, since these are fundamental building blocks for the RBV in SMEs. As a second step toward answering this question, Kellermanns et al. (2014) present a comparison of researchers’ conceptualizations with similarities and differences existing between managerial and entrepreneurial practices. Kellermanns et al. (2014) find that although the two conceptualizations overlap, there are important differences in ownership requirements, as well as, in how these resources shape sustainability-related outcomes. These observations suggest important contextual limitations, when applying the RBVs within the field of entrepreneurship.

Second, one may explore organizational resources related to Human Resources. As an example, Ganotakis (2012) explores human capital and the sustainable performance in the UK new technology based firms (NTBFs). More specifically, Ganotakis (2012) investigates the role of entrepreneurs’ human capital on the sustainable performance of SMEs using an RBV approach. In line with the RBV, Ganotakis (2012) finds that human capital is more important for the sustainable performance of NTBFs than any other factor (Ganotakis, 2012). More specifically, entrepreneurs with high levels of formal business education, commercial or managerial experience are found to have better performing NTBFs. Ganotakis (2012) also finds that the performance of an NTBF improves through the combination of heterogeneous complementary skills, including, technical education and commercial or managerial experience (Ganotakis, 2012).

Third, one may explore organizational resources related to high performance work practices (HPWPs). HPWPs are human resource management practices aimed at stimulating employees and organizational performance within the green
industry. The application of HPWPs is not widespread in SMEs because of its costs. However, Kroon, Van De Voorde, and Timmers (2013) explore HPWPs in small sustainable firms with a resource-poverty and strategic decision-making perspective. More specifically, Kroon et al. (2013) examine whether the implementation of coherent bundles of HPWPs (e.g., employee ability, employee motivation, and opportunity to perform) depends on an SME: (1) scarcity of resources and (2) strategic decision-making. Their findings supported the idea that smaller but coherent bundles of HPWPs could be found in SMEs and that the implementation of these bundles depended on (1) available resources; (2) strategic decision-making; and (3) the combination of the two (Kroon et al., 2013).

Fourth, one may explore organizational resources related to partnership diversity. As an example, Meyskens and Carsrud (2013) explore green-technology ventures and assess the role of partnership diversity in the success of SMEs. Partnership diversity relates to the variety of partnerships an SME has and the way a green-technology venture engages to mobilize partnership resources (Meyskens & Carsrud, 2013). Meyskens and Carsrud’s (2013) study suggests that accumulation through partnership diversity leads to success. However, their data (i.e., from 50 green-technology venture business plans) also suggest that resources mobilized do not mediate the relationship between partnership diversity and success as measured by venture development, value creation, and venture innovation.

Fifth, one may explore organizational resources related to crowdfunding. With the development of social media, crowdfunding has emerged as a new funding method for entrepreneurial projects where investors, mainly constituted by ordinary citizens, support an idea and contribute to its realization. First, academic research on the role of crowdfunding in sustainable entrepreneurship is mostly focused on conceptual approaches (Manning & Bejarano, 2016) or correlational approaches (i.e., research where it is difficult to detangle cause and effect relationships) (Nielsen & Reisch, 2016). Second, sustainability-oriented ventures are constrained in early “seed funding” stages, as their social and environmental goals cause them to be perceived as less attractive investments compared to traditional entrepreneurial ventures (Choi & Gray, 2008). However, crowd investors’ motivations are different from those of traditional investors (Aitamurto, 2011), as crowdfunding is more driven by altruistic needs (Bonzanini, Giudici, & Patrucco, 2016). Crowd investors often participate because of non-material rewards such as the desire to support specific causes in relation to their core values (Belleflamme, Lambert, & Schwienbacher, 2014; Gerber & Hui, 2013; Lehner & Nicholls, 2014). Crowdfunding represents a revolutionary application of social networking with direct consequences for sustainability and entrepreneurship (Arcese, Flammini, Azevedo, & Papetti, 2015; Gerber & Hui, 2013; Goodman & Polycarpou, 2013).

Finally, one may explore resources related to knowledge management and information systems. The sharing economy is a class of economic arrangements in which asset owners and users mutualize access to the products or services associated with these assets (Lamberton & Rose, 2012). One may wonder under what conditions an emerging form of collaborative consumption, known as the
sharing economy, affects the creation of sustainable ventures. Fueled by advances in information technology and excess resources, the sharing economy offers easy and broad connection with customers and suppliers worldwide. The emergence of the sharing economy leads to dramatic changes in the nature of competition between entrants and incumbents on worldwide markets. As an example, Link and Ruhm (2011) explore innovative actions of entrepreneurs, and their tendency to create intellectual capital that results in public knowledge (e.g., publications) or private knowledge (e.g., patents). Using data collected by the National Research Council within the USA (i.e., survey of firms that received National Institutes of Health “SME Innovation Research Awards” between 1992 and 2001), Link and Ruhm (2011) find that entrepreneurs with academic backgrounds are more likely to publish intellectual capital compared to entrepreneurs with business backgrounds who are more likely to patent intellectual capital. As another example, the sharing economy has fostered the growth of well-known startups, including accommodation companies (e.g., Airbnb), social media firms (e.g., Facebook), and financial firms (e.g., Lending Club) (Belk, 2014; Matzler, Veider, & Kathan, 2015). As another example, Pickernell et al. (2016) demonstrate the potential of business analytics, using a nascent soft computing-based methodology in a multi-direction investigation of SMEs in the UK. Some authors may argue that SMEs have their own strategies for their survival and contribution to the associated economy, including in respect to innovation. Innovation (i.e., finding a more effective way of doing something) can therefore play a critical role in enabling SMEs business growth and performance. As another example, Afolayan, Plant, White, Jones, and Beynon-Davies (2015) explore what the adoption of information technology offers in terms of benefits across a wide range of intra- and inter-firm processes and transactions. Information technology is shown to provide SMEs with a competitive advantage along with improved integration among supply chain trading partners (Afolayan et al., 2015).

As a summary, according to Kuratko et al. (2015), it is important to understand the resource dynamics of entrepreneurship through a multiple framework approach. The next section will introduce a discussion and call for action.

DISCUSSION

As discussed in the previous sections of this chapter, private sector sustainability initiatives manifest themselves through multi-stakeholder initiatives (Bartley, 2007; George et al., 2016; Levy & Kaplan, 2008; Nadvi & Wältring, 2004; Rasche, 2010; Rasche et al., 2013). Driven by diverse operations, implementations, and marketing methodologies, sustainable multi-stakeholder initiatives have been extensively studied within the context of MNEs. However, multi-stakeholder initiatives have been less extensively studied in the context of SMEs (Holt, 2011).

Through entrepreneurship, as opposed to policy making or MNEs, the impact of the SDGs may be maximized, creating long-term gains for society and the environment (United Nations, 2017a, 2017b). Therefore, research on environmental
issues and SMEs has taken a number of different directions. The field of research was presented to identify important opportunities and challenges for SMEs and SDGs. More specifically, this field of research was presented to identify (1) a set of external factors that stimulate SMEs’ sensitivity to environmental issues; (2) a set of internal factors that link SDGs with performance; and (3) the role of organizational resources and capabilities in enhancing SMEs performance.

In terms of practical implications, this field of research pointed to the need for SMEs to adopt SDGs as a way to enhance their social and financial performance. As discussed in the previous sections, integrative views of SMEs capture their hybrid nature in terms of social and economic value (Acs et al., 2016). In terms of financial outcomes, it was observed that a sustainable orientation plays a critical role in enhancing the SME financial results (Leonidou et al., 2016).

In terms of social implications, governments, regulatory bodies, and other non-governmental organizations have a role to play in harnessing SDGs and SMEs performance. Indeed, as discussed in previous sections, to enhance SMEs’ sensitivity to SDGs, one needs to monitor changes in the social stakeholder’s environment.

In terms of theoretical implications, the review of literature shows that entrepreneurship is a powerful driver of sustainability (George et al., 2016). First, one needs to identify a set of key external factors that stimulate an SME sensitivity to environmental issues. Second, one needs to focus on the dynamics of internal sustainable orientations within SMEs, an issue that has been tangentially tackled in the environmental business literature. Third, one needs to associate resources with performance, a link that, although studied within the context of MNEs, has been partially neglected for SMEs.

A critical outcome of the literature review on sustainability and entrepreneurship is that future research needs to better reflect the factors that may stimulate SMEs’ sensitivity to SDGs. As discussed in previous sections of this chapter, the field of entrepreneurship developed as a business discipline by adapting conceptual frameworks from other disciplines (George et al., 2016; Kuratko et al., 2015). A first stream of research may expand on environmental awareness, which was found to be relatively high among SMEs owners, but rarely translated into real commitment for environmental issues (Williamson & Lynch-Wood, 2001). A second stream of research may expand on the environmental attitudes of SME owners. On the one hand, the issue of eco-orientation was extensively studied within the context of MNEs (Menon & Menon, 1997), but it was only peripherally explored within the context of SMEs, probably because of the misconception that SMEs are less aware of the negative environmental effects of their operations (Patton & Worthington, 2003). On the other hand, there are indications that the adoption of an eco-friendly orientation yield significant gains for SMEs, like cost savings, improved reputation, and customers’ attraction or retention (Gadenne, Kennedy, & McKeiver, 2008; George et al., 2016). A third stream of research may expand on factors that stimulated environmentally friendly behaviors in SMEs. At this level, Revell, Stokes, and Chen (2009) distinguished between “push” motives (e.g., environmental legislation, technical standards, and local community rules) and “pull” motives (e.g.,
cost savings, new customers, and good publicity) to show that both had an impact on SMEs core values. A fourth stream of research may focus on the factors obstructing the adoption of environmental initiatives by SMEs, such as increased costs (Revell et al., 2009), loss of market competitiveness (Revell et al., 2009), and lack of staff time (Revell et al., 2009). A fifth stream of research may expand on external and internal drivers influencing a green orientation in SMEs. With regard to these drivers, some researchers stressed the role of legislation, suppliers, customers, and institutions in (1) adjusting organizational procedures; (2) developing environmental policies; (3) using environmental audits; and (4) seeking accreditation from external environmental standards (Gadenne et al., 2008; Williamson & Lynch-Wood, 2001). A sixth stream of research may expand on environmental management systems, which in the majority of cases were not in place in SME (McKeiver & Gadenne, 2005). When these environmental systems existed, these systems were of an informal (e.g., changing processes to reduce waste) rather than a formal (e.g., ensuring compliance with all environmental laws and regulations) nature (McKeiver & Gadenne, 2005). A seventh stream of research may expand on the formal environmental certification program of ISO 14000 and particularly the ISO 14001 variant. Empirical studies revealed that an overwhelming majority of SMEs had low awareness levels (Revell et al., 2009) and limited adoption levels (Cordano, Marshall, & Silverman, 2010; Lefebvre, Lefebvre & Talbot, 2003; McKeiver & Gadenne, 2005; Revell, Stokes, & Chen, 2009) of this environmental management systems. The eighth stream of research may expand on the environmental behavior and performance of SMEs. For instance, Williamson and Lynch-Wood (2001) found that very few of these firms had an environmental manager in place, most did not have environmental policies, and they did not produce environmental reports.

In terms of limitations, this field of research may face a greater level of heterogeneity than many others, because of the heterogeneity that exists among SMEs. Indeed, according to Afolayan et al. (2015), SMEs are not a uniform or standardized set of businesses. They are in fact a highly heterogeneous collection of enterprises and vary substantially by size, sector, age, structure, and location.

NOTE


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