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Building Business Models around Sustainable Development Goals

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Abstract

By specifying the UN's sustainable development goals as quantifiable target groups, one can address these targets directly. We develop four generic business model designs based on two fundamental decisions: Should value be created for or with the target group, and should income be generated through market revenues or positive externalities?

Introduction

The increasing proliferation and, consequently, societal awareness of global environmental, social, and economic problems has led the United Nations (UN) to officially enact as of January 1, 2016 a collection of 17 Sustainable Development Goals (SDGs) as a common global agenda until the year 2030 (A/Res/ 70/1, 2015). Although not legally binding, the SDGs, agreed upon by 193 UN members, mark a milestone in international policy coordination. The common objectives comprising the biosphere, society, and the economy are fundamental enough to be acceptable by all nations involved, and, with 169 specific targets (A/Res/71/313, 2017), they are instrumental enough to take action. Moreover, with 232 indicators, fulfillment of individual goals can be measured and compared, thus providing an orientation for dealing with multiple and possibly conflicting objectives in the decisions made by stakeholders, e.g., policy makers, public organizations, firms, and investors.

Yet, in order to avoid paying merely lip service to sustainability, the 17 SDGs have to be operational in order to be approachable by organizations and firms. This raises the question of implementation, which requires new forms of social interaction, economic

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development, and, specifically for firms, business models. With regard to the latter, the traditional approach has been to innovate existing, operating business models by including objectives of social support and environmental protection, thus creating the benchmark of a triple bottom line that firms must exceed to ensure sustainability (Bocken, Short, Rana, and Evans, 2014). While the economic bottom line is intuitively given by the generated income required to maintain the operative business, social and environmental bottom lines are more difficult to conceive. Instead of quantifying specific thresholds, the approach calls for a balance of objectives (Boons and Lüdecke-Freund, 2013). However, if objectives cannot be specified, sustainability efforts threaten to become "business-as-usual augmented by incremental environmental or social initiatives" (Schaefer, Corner, Kearins, 2015: 395), where the focus is mostly on reducing unsustainability (Cohen and Winn, 2007; Dean and McMullen, 2007) rather than creating sustainability (Ehrenfeld, 2012).

In this paper, instead of integrating SDGs into the business model, we proceed in the opposite direction. We take the perspective of a "conscious entrepreneur" (Pavlovich and Corner, 2014), who is committed to sustainability by pursuing a specific environmental or social mission and then strategically formulating an economically sustainable business model around this mission, thereby creating shared value (Porter and Kramer, 2011). As a consequence, only economic sustainability becomes the bottom line to exceed, but corresponding to articulated social or environmental objectives. By specifying sustainability targets upfront in the value proposition, the entrepreneur can also identify the indicators to measure their fulfillment. As we show, the UN's collection of SDGs as a system of globally shared beliefs and values (Schaefer et al., 2015) together with their specific targets and associated indicators hereby provide an orientation for the organizational implementation of sustainability through the business model (Santos, Pache, and Birkholz, 2015). An economically sustainable business model built around a mission centered on SDGs can then be defined in the traditional sense as a logical process of value creation, value delivery, and value capture that can be maintained in the long run (Osterwalder and Pigneur, 2010; Zott and Amit, 2010; Arend, 2013; Dohrmann, Raith, and Siebold, 2015; Massa, Tucci, and Afuah, 2016).

Approach

In a first step, we need to conceive the sustainability targets in a way that they can be explicitly addressed by a social or environmental mission (Martin and Osberg, 2015). For the purpose of this study on business models, we concentrate on those SDGs that can be addressed directly at the firm level. For the SDGs related to social targets, e.g., no poverty (SDG 1), zero hunger (SDG 2), good health and well-being (SDG 3), quality education (SDG 4), gender equality (SDG 5), or reduced inequalities (SDG 10), the social mission of a venture will typically specify a social target group to which created value is delivered (Santos, 2012; Dees, 2012). A well-identified target group supports value delivery, because one can measure the size of the target group, the number of affected individuals, and the status change of each or the average affected individual accomplished through the mission. The same reasoning can be applied to fauna related environmental targets, e.g., life on land (SDG 15) or life below water (SDG 14). For example, organizations such as the "World Wildlife Fund" or "Greenpeace" focus on specific endangered target groups of animals. A crucial difference between animal and human target groups is that in a non-vegan sustainable society numerous species of animals are used as resources, against their free will and often at the cost of their life to produce consumption goods such as food, clothing, and furniture, or to develop goods such as cosmetics and pharmaceuticals. Other species are held in captivity, e.g., as pets, as resources for services of human pleasure. However, as long as the treatment of these animals is still a matter of social concern, they can be regarded as target groups as well, for which objectives, targets, and indicators can be specified for responsible consumption and production (SDG 12). In terms of formulating sustainability targets, the differences between flora and fauna are not fundamental. Plants are also living entities that can be granted the right simply to exist (SDG 14, 15) and can therefore be focused as target groups. And plants are also regarded as resources for production and consumption (SDG 12). A technical difference between fauna and flora is the method of measurement, where indicators of flora related targets are typically quantified by areas, weights, or other aggregate measures. The final category of sustainability targets that we consider for business model design relates to abiotic targets, e.g., air, water, minerals.

As many important natural resources are distributed throughout the world, their measurement seems most appropriate in geographical categories, such as the air in cities, the water in oceans or lakes (SDG 6, 14), or rare earths, which thereby become specific targets that can be addressed through a mission.

In order to address the sustainability targets at the firm level, we focus explicitly on value delivery to one or more quantifiable target groups. We then consider two fundamental strategic decisions to be made by entrepreneurs in designing their business models around this mission. The first decision relates to the way in which the sustainability target is addressed in the process of value creation. Here we distinguish between a supportive mode of value creation *for* a target and an integrative mode of value creation *with* a target (Dohrmann et al., 2015). The second decision relates to the way in which value is to be captured, i.e., the form of generated income. We distinguish between the *commercial* mode of value capture through the market, i.e., with market revenues, and the *social* mode of value capture through the mission, e.g., with monetary or in-kind donations, where both modes of generated income are means to an end (Porter and Kramer, 2011; Schaefer et al., 2015). With these two strategic decisions, we obtain a typology of four generic business model strategies for addressing sustainability targets, which are determined by the combinations of value creation and value capture, as is shown in Fig. 1. In the following, we characterize each business model strategy and discuss how it addresses the broad variety of SDGs.

1. **Provision**: The mission of a venture in this category is to create social value by directly supporting the fulfillment of a specific sustainability target through the free provision of goods and services. If the target (group) is of sufficient social concern, then its support will create positive externalities that the entrepreneur can try to capture in the form of monetary or in-kind donations, depending on the nature of the target. The firm's revenues are therefore not obtained from but generated through the target (Dohrmann et al., 2015). For social missions, this is the business model strategy adopted by charities, soup kitchens, or homeless shelters. The same design is employed by the "World Wildlife Fund" to prevent the extinction of endangered animal species or by "Greenpeace" with an even broader scope of environmental targets. The value capture of these organizations is characterized by the monetization of positive externalities (Santos, 2012; Dees, 2012).

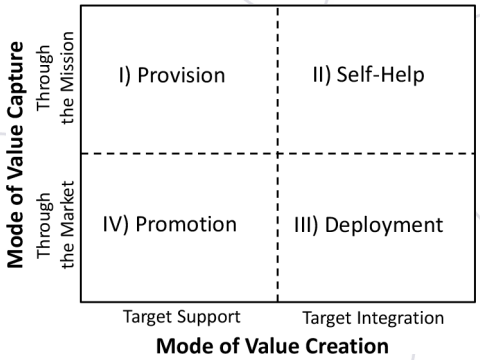

Figure 1: Generic business model strategies for sustainability targets

2. **Self-Help**: This strategy focuses on the productive integration of a target (group) into the process of value creation. Economic sustainability is supported by capturing resources as productive input from the target for which value is created. The self-help strategy thus substitutes a (missing) market for resources that the target can provide (donate) itself. In societal contexts, self-help value-creation processes help to empower social or physically disadvantaged target groups. In environmental contexts, self-help is typically achieved through natural regeneration processes, which, however, are often endangered by society and therefore need to be supported to succeed, e.g., through the establishment of wild-life reserves. As the "Ocean Clean-up" project demonstrates, even oceans can be "empowered" to clean themselves by using their natural currents to collect the accumulated garbage at focal geographical locations. In many cases, economic sustainability cannot be achieved by self-help alone, in particular when the self-help process requires additional support or a technological infrastructure. However, if the implementation of self-help is appreciated enough to create positive externalities, these can be additionally monetized by the venture through donations (i.e., with the Provision model) to ensure economic sustainability (Dohrmann et al., 2015).

3. **Deployment**: Sustainability targets may also be productively integrated (deployed) by the venture to create marketable goods or services for commercial target groups. By combining social with commercial value in a hybrid business model, economic sustainability is achieved through market revenues (Haigh, Kennedy, and Walker, 2015; Hockerts, 2015). For example, the social mission of "Work Integration Social Enterprises" (WISE) is to employ disadvantaged target groups, in order to integrate them into the work force. Conceptually, the same design is used by the "Kruger National Park" in Africa, where endangered species of wildlife are protected within their natural environment, thereby generating market venues from wealthy tourists on photo safaris. Again, even the "Ocean Clean-up" Project could fall into this business-model category, if the plastic that is gathered by the oceans is sold on the recycling market. In all of these examples, a target (group) benefits by being deployed as a resource for commercial value creation.
4. **Promotion**: The final business model strategy, similar to the provision strategy, pursues a supportive mission, but which the venture now uses to promote the sale of a commercial product or service to a customer group from which it can obtain market revenues. This capture of market value is used as a means to finance the social value creation alongside the commercial value creation (Porter and Kramer, 2011). This business model characterizes, for example, "buy-1-give-1" or "buy-1-donate-1" policies, where for every commercial sale of a product a similar product is given to a person in need, or, more generally, a sum of money is given to support a sustainability target in a social or environmental context (Marquis and Park, 2014).

Key Insights

As our discussion of heterogeneous social and environmental goals revealed, by addressing SDGs through their identified targets, the latter can be specified and addressed as target groups, to which value is delivered. The design of a business model around this social mission to create what Pavlovich and Corner (2014) refer to as a "conscious enterprise" involves two fundamental strategic decisions. The first is related to value creation and whether it is to occur *for* or *with* the target (group); the second focuses on value capture through the market or through the mission. As we showed, these two decisions determine the business model strategy for the entrepreneur's mission. The strategic task for the entrepreneur is thus to proactively select the appropriate business model for creating shared value and transformational change, rather than integrating the mission into an existing business model for mainly incremental change (Schaefer et al., 2015). Interestingly, this may be easier for startups in search of a new business model than for established firms with an existing one.

Discussion and Conclusions

The four generic strategies outlined above cover a broad conceptual variety of business models that can be built around sustainability targets, thus creating new opportunities for business model research (Arend, 2013; Eckhardt, 2013). As we have shown, each chosen strategy combination characterizes one of four distinct business model designs that can be utilized individually or in combination for targets of qualitatively different sustainability development goals. Indeed, the same business model design can be applied to targets of different nature, implying that the implementation of sustainability development goals at the firm level can be strongly supported by the use of analogies from completely different contexts (Martins, Rindova, and Greenbaum, 2015). The four generic strategies also provide a strategic orientation for non-sustainable firms in the process of sustainable business model innovation.

The realization of the UN's global agenda 2030 requires not only the commitment of policy makers, the implementation of the SDGs requires action being taken at the firm level. Rather than enhancing an economically successful business by additional social and environmental objectives as a form of responsive corporate social responsibility, we propose instead to configure economically sustainable business models around the SDGs for shared value (Porter and Kramer, 2006). With the central focus on quantifiable target groups, our business model approach may also facilitate impact measurement and, with our typology of generic strategies, provide a structured foundation for impact comparison between organizations that create shared value.

In providing a general framework that is suitable for a broad range of SDGs covering social and environment goals, our strategic approach to business model design around sustainability targets unites the two traditionally distinct research fields of sustainability entrepreneurship and social entrepreneurship. We believe that only a unified view will enable us to consider and measure the impact of private or public initiatives that address several SDG's in combination. We hope that our approach contributes to future research along this path.

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