



HAL
open science

Sustainable Value forms. Insights from a Sustainable Business Model serving a poor context.

Eduardo Méndez-León, Tatiana Reyes, René Díaz-Pichardo

► **To cite this version:**

Eduardo Méndez-León, Tatiana Reyes, René Díaz-Pichardo. Sustainable Value forms. Insights from a Sustainable Business Model serving a poor context.. 17ème colloque national S-mart AIP-PRIMECA, Université Polytechnique Hauts-de-France [UPHF], Mar 2021, LAVAL VIRTUAL WORLD, France. <hal-03296140>

HAL Id: hal-03296140

<https://hal.science/hal-03296140v1>

Submitted on 22 Jul 2021

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



HAL Authorization

Sustainable Value forms

Insights from a Sustainable Business Model serving a poor context.

Eduardo MÉNDEZ-LEÓN ¹

Université de Technologie de Troyes, ICD (CREIDD).
12 rue Marie Curie, CS 42060-10004 Troyes Cedex, France.
eduardo.mendez_leon@utt.fr

Tatiana REYES ¹

tatiana.reyes_carrillo@utt.fr

René DÍAZ-PICHARDO ²

South Champagne Business School.
217 Avenue Pierre Brossolette, Troyes, France
renediazp@hotmail.com

Abstract— *Sustainable business models are promising strategies to combat environmental, social, and economic depletion. They produce several benefits from systemic relationships among multiple actors, however; they explicitly consider the environment and society as main stakeholders. Currently, research is focused on reveal how sustainable business models create sustainable values but not much has been said about the typologies of values produced. Conducting a case study methodology, we studied a venture serving poor people living in an environmental exhausted context. As a result, we found that the sustainable model produces forms of value that can extend the conventional sustainable value frameworks discussed in the literature. We believe our results show sustainable value facets not portrayed so far.*

Keywords— *Sustainable Value forms; Sustainable Business Model; Base of the Pyramid.*

I. INTRODUCTION

Over the years, our society has experienced several societal, environmental, and economic problems that are transforming the way how we produce, consume, and even how we interact with each other. Some authors argue that contemporary problems could be related to capitalism [1]. However, sudden changes on a global scale have also contributed to. Recently, a health crisis has allowed us to re-think our position in nature but ironically it has also produced irreversible environmental, societal, and economic damages.

By developing technologies, several problems have been addressed. However, it is important to admit that some of those solutions are not oriented to meet basic needs. The development of automatic systems has nothing to do about energy poverty experienced in developed countries. Some societal sectors have different necessities; therefore, we must not assume that technologies are the key for all contexts nor introduce them in societies considering they have the same necessities. In this sense, technical solutions seem to be not enough. Additional social, cultural, or strategic aspects are crucial to delivering suitable solutions for different contexts. The population at the Base of the Pyramid (BoP) is one of them. Authors argue that they require solutions... “that reduce or eliminate harmful pollution and ecosystem degradation...while simultaneously supporting human capabilities and functioning and the attainment of basic human rights” [2].

In that regard, Sustainable Business Models (SBMs) are strategic tools that encompass not only technical solutions but also resources, strategies, and social aspects connected to companies for benefits generation [3]. As an innovative version of traditional models, SBMs are attractive for organizations with a BoP focus because they can transform a neoclassical model towards social and environmental priorities [4]. By definition SBMs “...seek to go beyond delivering economic value and include a consideration of other forms of value for a broader range of stakeholders” [5]. In the context of the BoP, SBMs can generate other forms of value for poor people, non-profit organizations, or society at large [6].

Since business models summarize the value proposed, created, delivered, and captured by an organizational unit, some authors state that the business model and the value have an inherent link [7,8]. Usually, positive results produced by SBMs are known as a sustainable value, a broad notion of value referring to the group of benefits that... “in the context of sustainability, does not only include monetary profit but also includes social and environmental aspects” [9].

Recent studies explore and demonstrate how different SBM archetypes generate the sustainable value [10–13], some other describes hypothetical sustainable values forms that can be produced by business models [11,14] and just a few analyze empirical evidence about how the sustainable value is created in the context of poverty [12,15]. However, no paper extending the sustainable value forms from an empirical approach in the BoP has been found. We cover this gap by examining a case study, an SBM that tackles water supply issues of the BoP population from Mexico City. Therefore, by employing interviews’ content analysis this paper answers the following research question: *What are the sustainable value forms produced by an SBM for the BoP?*

We found that this SBM is structured with several stakeholders and their complex exchanges are producing several forms of environmental, social, and economic advantages at different phases within the sustainable value creation. From those results, we produce a new sustainable value framework (forms of value) by integrating values in the conceptual models proposed by Evans et al. [14] and Laukkanen and Tura [11]. We believe our results represent different sustainable value facets that, manifested in our case

study, can contribute to describing what is sustainable value in non conventional business models.

After the introduction, the paper is organized as follows: Section 2 shows the theoretical background. Section 3 details the method. Section 4 presents our results. Finally, Section 5 presents a brief discussion and conclusions of our research.

II. THEORETICAL BACKGROUND

A. Sustainable Business Model at the BoP.

By introducing solutions for the BoP in the market economy, companies are simultaneously mitigating poverty and creating economic values (profits) [16]. However, attending the BoP is not a simple task because the BoP often is a complex context with financial, infrastructural, or legal problems [17]. To configure business models for the BoP implies the integration of several stakeholders in order to collectively create value.

Few studies have analyzed how traditional and innovative models fulfill the need of the BoP and their multiple stakeholders. From the traditional point of view, Angot and Plé [18] highlight that some value propositions for the BoP are traditionally based on adaptations which include: (i) lowering the product quantity (packaging modifications); (ii) tailoring offerings to low incomes and (iii) adapting consumption modes (renting vs owning). Much evidence shows that these “basic” strategies contribute to the well-being of the poor [19], although new ways to propose, create and capture the value from the BoP context suggest that value can be maximized and reach other actors involved in the business system and not only stay at the company-customer level.

Those businesses are known as Sustainable Business Models for the BoP. Basically, they have a focus on a long-run profit maximization or no interest in profit generation since they pursue to redesign business activities for society and the environment [20]. Business Models at the BoP are able to increase its native pull capability, that is to say; being able to get knowledge from the context and produce sustainable benefits at the same time. For example, Ausrød et al. [15] show that by providing electricity, a business model can learn from the BoP and simultaneously offer cheaper and better-quality products, employ local and natural resources from the local supply chain, use a non-scalable rational but a learn-from-customer logic, increase customer acceptance, get BoP workforce and expand the value proposition to a broader community.

In another sense, Angeli and Jaiswal [21] emphasize that some activities of business models serving the BoP can create win-win scenarios for the involved stakeholder. In the analysis of six health care businesses, they discover that eight strategies of the focal company (e.g., community engagement, the involvement of customers, medical technology innovation, strategic partnerships) could enhance the value that is captured by providers, suppliers, distributors, alliance members, and other value chain partners.

By answering the question of what sort of values are delivered to the stakeholder of 55 business models for the BoP, Dembek et al. [6] indicate that “delivering models” tackle

single needs of BoP communities, “sourcing models” meet specific needs of BoP population, and “reorganizing models” aim to generate collective wellbeing for the poor. According to the authors, these models have the potential to be sustainable but that depends on how the value creation mechanism affects the stakeholders and to what extent they get benefits from it.

Within the energy sector, one study also demonstrates the shared and sustainable value created by companies. From 33 energy companies, the research exhibit that almost all the organizations produce benefits related to (i) the basic need of the poor (cooking, lighting, and electricity); (ii) incorporate the poor in the model (as an employee, producer, builder or entrepreneur) and (iii) environmental benefits generations (emission reduction, resource usage reduction, and ecosystem sustaining) [22].

Finally, another example is found in the water sector. A private venture testifies that its sustainable business model has increased its level of business innovation and its sustainable potential compared to the traditional water industry. Moreover, the BoP consumer is enjoying safe and affordable water, the providers and manufacturers of the model increase its profits and the environment is benefited by the changes in the consumer behavior concerning bottled water consumption [12].

These studies represent examples of how systemic benefits can be produced by sustainable models and also corroborate the current interest in illustrating it. To do that, we have noticed that several “frameworks” have been employed by academics. In the next section then, we briefly discuss two types of frameworks and explain how their approaches can contribute to a sustainable value analysis for this case study.

B. Sustainable Business model frameworks

Sustainable value is a relatively new concept that emerged in 2003 with the work of Hart and Milstein [1]. The concept has been studied from different perspectives and domains. Over the years, the sustainable value concept has been embedded mostly in the business domain. However, a recent literature review, reveals that it is extensively used in the specific SBM area, and is playing an important role as a framework [23].

Sustainable value can be considered as an ambiguous term because it is often quoted as a benefit in a “very broad sense, to mean everything good, long-lasting, profitable, low-risk, neutral, or positive, connected with society and/or the environment” [23]. Thus, it is expected that its frameworks share the same fate in terms of what aspect of sustainable value they represent. In that regard, we notice that there are two sorts of frameworks and they deal with two different value nuances.

On the one hand, we observe that sustainable value in SBMs is compared to the value in traditional business models, that is to say; sustainable value is treated as a business process involving resources, strategies, and funds for value generation. In that regard, after a previous and comprehensive review, we corroborated that an integrative value-based framework [24] is shaping the way how the value is studied in sustainability. Therefore, we interpret that most of the sustainable value analysis are actually dealing with a sustainable value creation process which can be described as a process of activities that

generates benefits or advantages, performed by a focal company and several stakeholders since they participate actively in the exchange activities coordinated by the focal firm [25].

On the other hand, we distinguish that different forms of sustainable value produced by business models lie on conceptual frameworks [6]. Using a basic template of three pillars of sustainability, academics have theoretically contributed to list positive impacts from businesses [11,14]. Overall, we conceptualize value forms as the environmental, social, or economic facets of value that are generated by business models. In a nutshell, the value forms framework helps to understand what type of values are produced instead of how sustainable value is created by companies. In this paper, we mainly study this sustainable value nuance.

III. METHODOLOGY

A. Case Study Methodology

To explore the sustainable value in an SMB for the Base of the Pyramid, we selected the qualitative research approach, that rooted in rich descriptions of real-life situations, is claimed to help investigators in the understanding of complex situations [26]. Among several ways to conduct qualitative research, Case Study contributes to solving “how” and “what” questions to generate knowledge. Although we followed the general clauses of Yin [26] for Case Study research, we specifically keep close to Eisenhardt's [27] approach for case studies. Interviews were the main source of qualitative data, however secondary sources as company reports were also analyzed.

B. Case Study selection.

Our selection followed theoretical sampling reasons, in other words, the case was selected considering we aimed to extend the theoretical sustainable value forms previously defined in frameworks. The single case examined in this paper was chosen because of the expectations to be an “extreme” case, that one with the richness to reveal alternative explanations of sustainable value and eventually new theoretical forms [26]. Our expectations were based on two aspects of the SBM.

On the one hand, we previously analyzed a group of SBMs in Mexico reaching the BoP population. Among them, we noticed that the selected case has several stakeholders' interactions; a characteristic stated as crucial to extend the understanding of sustainable value in SBMs [8]. On the other hand, expectations were also based on the supposed values it generates. Several sources of information (publications, videos, reports, etc.) showed several social, environmental, and economic benefits created not only for the BoP but also for the environment. In this way, we believe our selection process partially agreed with the criteria other authors followed to select single cases to study value [12].

C. Data analysis.

Content Analysis, a method of codifying texts into various categories, was selected to analyze data. We selected it due to its versatility to either test theoretical issues or provide new knowledge to improve the understanding of data. We followed the process of Bengtsson [28]. The analysis process was

conducted using the software MAXQDA which was useful to manage the variety of data.

We simultaneously conducted two analyses about the SBM: the sustainable value creation process and forms generated by it. To do that, an iterative process between deductive and open analysis was performed. Through deductive analysis, we coded data using the previous frameworks to verify the correspondence of theoretical dimensions (*activities* in the SBMs and *value forms*). In the open analysis, notes and headings were assigned to data associated with *activities* and *value forms* but not related to the conceptual frameworks. 256 codes were finally assigned to 8 interviews and 15 secondary documents.

Codes were used to create categories, however, during open analysis, they were freely created by employing the manifest content of data [29]. Finally, meanings, relations, and explanations were reached by inductively interpret patterns in summary tables created to show the content of codes and categories [30].

IV. RESULTS

A. Isla Urbana Case Study.

Isla Urbana (IU) is a hybrid company that supplies water to BoP communities by installing Rainwater Harvesting Systems (RWHS) in households. IU can be considered as an SBM fitting with the “repurpose for society and environment” archetype [20] because profits maximization is not a priority. IU tries to mitigate the overexploitation of the aquifers and provide water to the BoP population with an inefficient provision. Although the model is extending to other Mexican territories, it is mainly focused on environmental advantages for Mexico City and social benefits for its BoP population.

The components of the RWHS depend on the structural characteristics of households. Basically, the system harvests the rainwater that drops on the households' roofs. The water is transported through pipes towards a cistern. Water is transported from the cistern to the serving device through pipes once is filtered by several filters. The final product (water) provided by Isla Urbana met the drinking water standards for Mexican territory.

IU attends the BoP population through an SBM funded by the local government. The SBM involves several stakeholders, among them the BoP is the beneficiary and the government the client. During 2019, this SBM installed 10,126 RWHSs providing water for 60,000 beneficiaries in the valley of Mexico (islaurbana.org). Behind the main device (Tlaloque), several services are included in the SBMs such as tailored installations, training, supervision, and repair of the RWHS.

B. How the sustainable value is created by Isla Urbana?

To analyze sustainable value creation, we use the three-components business model framework of Richardson [24]. However, we considered its most recent version which includes additional elements that are supposed to well explain the sustainable implication of business models [20,31]. One variation was also considered for this version, we position the “activities” in the center of the sustainable value analysis instead of keeping them as an element of “value creation

component” since we consider they are the lowest and most important level of value analysis for business models. A summary of the value proposition, value creation and delivery, and value capture of IU is shown in Figure 1.

Value Proposition.	Value Creation and Delivery.	Value Capture.
-Water Provision for the BoP by installing RWHS in households. - A high rate of adoption which increases the attraction of funders.	Integrating several stakeholders for community intervention (mostly the BoP), this SBM increase the environmental awareness of the BoP while potentialize several social benefits for the system.	-Transforming the family water situation in the BoP. -Capturing several social and environmental benefits for the stakeholders.

Figure 1. IU’s SBM.

C. Stakeholders and activities.

The SBM of IU is structured with several stakeholders. Some of them have a strong influence on the logic of how IU generates value for BoP people, however, the activities other actors perform could not be relevant from an economic point of view. To identify the different value forms, it was essential to thoroughly examine who are the main actors and what activities are executed by them.

We use basic principles to recognize stakeholders: (i) those who create or capture value; (ii) those who assume risks (inside or outside the firm) and (iii) those who suffer the impacts of the firm’s externalities [32]. However, the recognition process also implied understanding what value for them is, that is to say; what they are seeking from an exchange with any business model actor.

In that regard, we stated that sustainable value is a broad concept. Thus, “sustainable value for stakeholders” meant more than economic benefits or advantages that stakeholders need. As a result, we found thirteen stakeholders involved in IU’s business model. Table 1 shows their role in the SBMs.

Stakeholder	Main role
1.Focal company	Manager of the SBM
2. BoP beneficiary	Recipient of the RWHS and IU training
3. BoP community	Recipient of IU training
4. RWHS installers (BoP)	Installer of the RWHS
5. Suppliers	Provider of plastic devices
6. Government	Financial sponsor
7. CI stakeholders	Cultural partners for IU training (CI: community intervention).
8. Environment	Environmental value recipient
9. Academics	Information and data producer
10. Society	Social value recipient
11. Co-workers	Employees of the focal company
12. BoP community leaders	Communication agents
13. Education Department	Training manager and designer

Table 1. STAKEHOLDERS OF THE IU’S SBM.

The second factor in value forms identification was to pick out the activities performed by these stakeholders. As value, sustainable value is produced by exchanges [33]. Therefore, even if we identify many unilateral activities producing values for the BoP (one single stakeholder), we paid special attention to those performed among stakeholders. The scope of this paper is not scrutinizing them, nevertheless; Figure 2 shows how many activities are performed by each stakeholder. In summary, we observed that stakeholders from the BoP are

together performing almost the same number of activities that the focal company (IU). That reveals the importance of the BoP in the value creation process of this SBM.

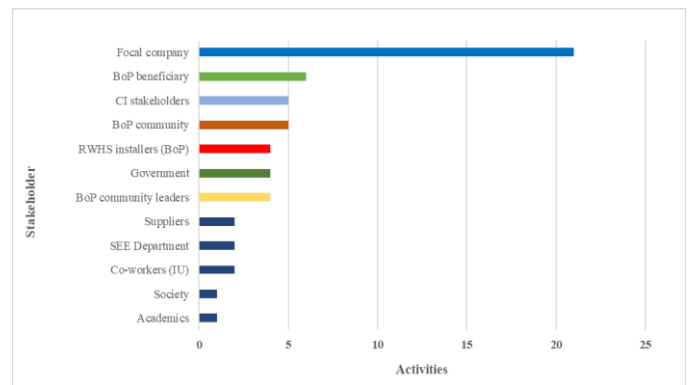


Figure 2. STAKEHOLDERS AND ACTIVITIES IN IU’S SBM.

D. Value forms produced by IU.

Inspired by other frameworks, this paper was focused on listing sustainable value forms from IU’s business model. Our framework uses the three pillars of sustainability but also integrates the value forms produced in the context of BoP into predefined subcategories. In this regard, Laukkanen and Tura [11]’s subcategories were used as a foundation of our analysis because it comprises the value forms enunciated by Evans et al. [14]’s framework and some of those created by the IU model. Additionally, subcategories in which no values could be placed were removed to obtain a clear outlook of real values from the case study.

Environmental value forms produced by IU are shown in Table 2.

Environmental Value forms
Increasing resource efficiency
Reuse of products and materials
Elimination/reduction of waste
Responsible use of resources
Responsible use of natural resources (rainwater)
Increasing environmental well-being
Environmental well-being by diminishing the environmental stress for water extraction and consumption in the territory.
Increasing of the environmental awareness
Environmental awareness on BoP about the water crisis
Environmental awareness on BoP about the use of alternative energies by using an eco-technology
Environmental awareness on BoP about the harvest of rainwater.
Increasing of awareness (RWHS system and function)
Environmental awareness (as a whole)
Increase of environmental awareness on BoP installers (Distribution Channel of the model)
Generating an eco-technology adoption
Eco-technology adoption for the BoP (USE vs CONSUMPTION)
Increase of adoption levels (RWHS)
Promoting sustainable practices
BoP beneficiary identification (for harvesting rainwater)
Promotion of RWHS (Forum creation)
Lowering the environmental impact of the territory
Promoting a close relationship with the environment
Changing the sustainable paradigm of the BoP population

Table 2. ENVIRONMENTAL VALUE FORMS FROM IU’S SBM.

The SBM is producing traditional environmental values, for instance, elimination of waste or the responsible reuse of products. However, we remark that several environmental

values emerged to create the “Increasing of the environmental awareness” category. Fundamentally, this category is grounded on environmental literacy for society and all the BoP stakeholders. In doing so, they promote the “adoption” of the RWHS and not just its consumption. This adoption is just captured by the BoP but almost all environmental values identified in IU are leveraged by the BoP intervention. The main systemic impact of IU’ SBM is the reduction of the environmental stress for water extraction and consumption in the territory.

Table 3 shows a summary of the social values.

Social Value forms
Respecting laws and regulations
Standards (drinking water), and individual rights are respected.
Respecting employee, stakeholders, and individual rights
No discrimination
Equal treatment of employees/stakeholders/individuals
Ethical principles and no harmful social impacts
Operation, products, and services do not harm people or the community
Ethical principles are followed (caring use of resources)
Increasing social well-being
Employees Happiness, Career promotion
Intrinsic value for employees
Professional experience, Satisfaction with the job, operational learning, acquisition of knowledge and capabilities, professional development, environmental and technical training for employees
Social networking creation
Communication channels creation with BoP communities and BoP beneficiaries.
Networking creation with strategic actors from BoP communities (community leaders)
Social cohesion in BoP communities
Improving communication with BoP
Closing the communicational gap between the focal company and the BoP communities
Increasing the rallying power of the focal company in BoP communities
Development of social awareness
Learning the social realities of BoP communities
Cultural development at the BoP
Bringing artistic and cultural practices to the BoP
Improving the living conditions of the BoP
Social and environmental wellbeing
Water provision by RWHS
Awareness for a participative role
Teaching to beneficiaries the skills for increasing the efficiency of the RWHS

Table 3. SOCIAL VALUE FORMS FROM IU’S SBM.

The BoP is integrated into several aspects of the IU’s business model. For example, BoP beneficiaries are hired by IU in order to take advantage of the technical knowledge embedded in them. IU model produces several intrinsic values for employees, more importantly, operational learning about the rainwater harvesting systems. The BoP is also involved in networking creation. Often, BoP people (community leaders) create communicational channels in communities and legitimate the results of the RWHS by sharing the economic benefits it produces for households. During educational events performed by IU and other community intervention stakeholders, one of the main social impacts is the promotion of social cohesion. This factor was also seen when BoP beneficiaries share the main value of the RWHS during rainy seasons; BoP beneficiaries help their community by sharing the water they harvest. Beneficiaries claim to be happy to help their community.

Table 4 presents the economic value forms produced by this systemic model.

Economic Value forms
Increasing profits and business opportunities
Increase of profits
Increasing attractiveness
Increases in reputation and brand value (attractiveness as an employee/collaborative partner)
Increasing economic well-being
Employment creation and Economic well-being for the BoP (avoiding economic fees for insufficient water provision)
Provision of strategic information for the system
Product properties, product acceptance evaluation
System adoption evaluation
Increasing the efficiency of the RWHS
Getting feedback about the RWHS and the business model from the BoP
Increasing innovation and performance

Table 4. ECONOMIC VALUE FORMS FROM IU’S SBM.

Results corroborate what the literature states about SBMs attending the BoP. IU’s business model does not pursue the maximization of profits. Even if IU does not have a real competitor, it keeps the focus on producing environmental values and social values for BoP communities. Behind the economic value that traditional models produce (an increase of profits), the most outstanding economic value is allowing the BoP to save money from water provision expenses (water transportation). From collaboration with the academy sector, the IU’s model is getting strategic information about its system and the level of adoption for an eventual improvement in the funding attraction.

Finally, even though we focus on value forms we noticed some challenging situations. To overcome financial obstacles, the SBM of IU is getting funds from a parallel traditional model. This allows generating financial resources to continue the social and environmental mission of the firm, however, innovating the business model for reaching scalable SBMs could represent a value opportunity.

V. DISCUSSION AND CONCLUSIONS.

Sustainable Value is understood as the social, environmental, and economic benefits [33]. Often, this concept is linked to the positive results of Business Models but mainly to those considered Sustainable. Research has produced interesting information about the different sort of Sustainable Business Models and how these “mechanisms” deliver sustainability [20]. However, exploring cases is necessary to extend conceptual categories of sustainable value forms and simultaneously improve the understanding of how sustainable models create them. We paid special attention to the SBMs for the BoP, the archetype where it is assumed that different logics of value generation and systemic benefits exist [6]. Through this paper, we aimed to describe sustainable value forms of a sustainable model attending to poor people.

In our case study, we corroborate that the sustainable business model for the BoP is characterized for offering a comprehensive solution for the BoP [6], adoption and implementation of technologies [12], social interactions to increase customer acceptance, and the integration of BoP to generate more values [15]. From our descriptive results, we notice that direct and indirect collaboration of BoP agents is

defining the way how sustainable value is produced and defines value forms not sketched out in the literature so far. Mainly, its process is focused on increase environmental and social awareness which is not common in traditional business models.

We assume that more case study examinations can contribute to extend the value forms described here and to propose new theoretical dimensions for the value creation framework. We remark that there are some overlaps among value forms, sometimes is not evident to position a value as environmental, social, or economic since complexity is a natural characteristic of value term [34]. We also highlight that analyzing the sustainable value in the business model implies two aspects: a creation process and the types of sustainable value produced by them. In both cases, we emphasize that an approach of activities should be taken for researchers to obtain clear insights of stakeholders involved in the SBM, their activities, and the positive impacts.

Further research should identify more value forms in the other sustainable value archetypes. By conducting this research, we unearth some value forms that could help academics understand what the sustainable value for the BoP is.

VI. RÉFÉRENCES

- [1] HART SL, MILSTEIN MB. Creating sustainable value. *Acad Manag Exec.* 2003 May;17(2):56–67.
- [2] ARNOLD DG, WILLIAMS LHD. The paradox at the base of the pyramid: Environmental sustainability and market-based poverty alleviation. *Int J Technol Manag.* 2012;60(1–2):44–59.
- [3] CHESBROUGH H, AHERN S, FINN M, GUERRAZ S. Business Models for Technology in the Developing World: The Role of Non-Governmental Organizations. *California Management Review.* 2012; 48(3):48–61.
- [4] STUBBS W, COCKLIN C. Conceptualizing a “Sustainability Business Model.” *Organ Environ* [Internet]. 2008;21(2):103–27.
- [5] BOCKEN N, SHORT S, RANA P, EVANS S. A value mapping tool for sustainable business modelling. *Corp Gov.* 2013;13(5):482–97.
- [6] DEMBEK K, YORK J, SINGH PJ. Creating value for multiple stakeholders: Sustainable business models at the Base of the Pyramid. *J Clean Prod.* 2018;196:1600–12.
- [7] YANG M, EVANS S, VLADIMIROVA D, RANA P. Value uncaptured perspective for sustainable business model innovation. *J Clean Prod.* 2017;140:1794–804.
- [8] GEISSDOERFER M, VLADIMIROVA D, EVANS S. Sustainable business model innovation: A review. *J Clean Prod.* 2018;198:401–16.
- [9] YANG M, VLADIMIROVA D, RANA P, EVANS S. Sustainable value analysis tool for value creation. *Asian J Manag Sci Appl.* 2014;1(4):312–32.
- [10] KRISTENSEN HS, REMMEN A. A framework for sustainable value propositions in product-service systems. *J Clean Prod.* 2019;223:25–35.
- [11] LAUKKANEN M, TURA N. The potential of sharing economy business models for sustainable value creation. *J Clean Prod.* 2020;253:120004.
- [12] SOUSA-ZOMER TT, CAUCHICK MIGUEL PA. Sustainable business models as an innovation strategy in the water sector: An empirical investigation of a sustainable product-service system. *J Clean Prod.* 2018;171:S119–29.
- [13] WINSLOW J, MONT O. Bicycle Sharing: Sustainable Value Creation and Institutionalisation Strategies in Barcelona. *Sustainability.* 2019;11(3):728.
- [14] EVANS S, VLADIMIROVA D, HOLGADO M, VAN FOSSEN K, YANG M, SILVA EA, et al. Business Model Innovation for Sustainability: Towards a Unified Perspective for Creation of Sustainable Business Models. *Bus Strateg Environ.* 2017; 26(5):597–608.
- [15] AUSRØD VL, SINHA V, WIDDING Ø. Business model design at the base of the pyramid. *J Clean Prod.* 2017;162:982–96.
- [16] CALTON JM, WERHANE PH, HARTMAN LP, BEVAN D. Building Partnerships to Create Social and Economic Value at the Base of the Global Development Pyramid. *J Bus Ethics.* 2013;117(4):721–33.
- [17] GEBAUER H, HALDIMANN M, SAUL CJ. Business model innovations for overcoming barriers in the base-of-the-pyramid market. *Ind Innov.* 2017;24(5):543–68.
- [18] ANGOT J, PLÉ L. Serving poor people in rich countries: the bottom-of-the-pyramid business model solution. *J Bus Strategy.* 2015;36(2):3–15.
- [19] PRAHALAD CK, HART SL. The Fortune at the Bottom of the Pyramid. *Strateg + Bus.* 2002;(26).
- [20] BOCKEN NMP, SHORT SW, RANA P, EVANS S. A literature and practice review to develop sustainable business model archetypes. *J Clean Prod.* 2014; 65:42–56.
- [21] ANGELI F, JAISWAL AK. Business Model Innovation for Inclusive Health Care Delivery at the Bottom of the Pyramid. *Organ Environ.* 2016 ; 29(4):486–507.
- [22] PANAPANANAN V, BRUCE T, VIRKKI-HATAKKA T, LINNANEN L. Analysis of Shared and Sustainable Value Creation of Companies Providing Energy Solutions at the Base of the Pyramid (BoP). *Bus Strateg Environ.* 2016;25(5):293–309.
- [23] CARDONI A, KISELEVA E, TATICCHI P. In Search of Sustainable Value: A Structured Literature Review. *Sustainability.* 2020; 12(2):615.
- [24] RICHARDSON J. The business model: an integrative framework for strategy execution. *Strateg Chang.* 2008; 17(5–6):133–44.
- [25] O’CASS A, NGO LV. Examining the Firm’s Value Creation Process: A Managerial Perspective of the Firm’s Value Offering Strategy and Performance. *Br J Manag.* 2011 ; 22(4):646–71.
- [26] YIN RK. *Case Study Research: Design and Methods.* Third Edit. CA: SAGE Publications Inc; 2003. 178 p.
- [27] EISENHARDT KM. Building Theories from Case Study Research. 1989;14(4):532–50.
- [28] BENGTTSSON M. How to plan and perform a qualitative study using content analysis. *NursingPlus Open.* 2016;2:8–14.
- [29] ELO S, KYNGÅS H. The qualitative content analysis process. *J Adv Nurs.* 2008;62(1):107–15.
- [30] ERLINGSSON C, BRYSIEWICZ P. A hands-on guide to doing content analysis. *African J Emerg Med.* 2017;7(3):93–9.
- [31] SHORT SW, BOCKEN NMP, BARLOW CY, CHERTOW MR. From Refining Sugar to Growing Tomatoes. *J Ind Ecol.* 2014;18(5):603–18.
- [32] ARGANDOÑA A. *Stakeholder Theory and Value Creation* [Internet]. Vol. 3. Barcelona, Spain; 2011. Report No.: 922.
- [33] TAO J, YU S. Product Life Cycle Design for Sustainable Value Creation: Methods of Sustainable Product Development in the Context of High Value Engineering. *Procedia CIRP.* 2018;69(May):25–30.
- [34] AHMED W BEN, YANNOU B. Polysemy of Values or Conflict of Interests: A Multi-Disciplinary Analysis. *Int J Value-Based Manag.* 2003;16(2):153–79.