MIETE

MASTER IN INNOVATION AND TECHNOLOGICAL ENTREPRENEURSHIP

Bringing sustainability to Business Model thinking in Latin America

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Dissertation
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ABSTRACT

The concept of sustainability in business has gone through different stages of evolution. Nowadays, it is considered that it can improve the sustainability performance of many actors and systems; not only individual businesses, but also, business community, society and nature; all of them can be benefited from more sustainable corporate behavior (Baumgartner et al., 2017). In order to achieve sustainability, joint efforts are required between economic, environmental and social aspects. However, it is known that there are different realities around the world; the current case of developing countries is different, since it has another social, environmental, cultural, financial and political reality. In addition, their level of commitment to take measures that increase development is lower compared to developed countries.

The objective of this study was to propose a business model tool oriented toward sustainability and aimed at its application in Latin America. Moreover, in order to answer the research question, the analysis of factors that are envolved in the context of a Latin American reality (in specific Peru) was made through the methodology of exploratory research.

Finally, the researcher proposed a business model tool oriented towards sustainability based on the Business Model Canvas - BMC (formulated by Alex Osterwalder and Yves Pigneur) oriented to the SMEs in Peru and Latin America.
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ABBREVIATIONS AND ACRONYMS

- BMC - Business Model Canvas
- CS - Corporate Sustainability
- CSR - Corporate Social Responsibility
- SMEs - Micro, small and medium sized Enterprises
- SR - Social Responsibility
- TBL - Triple Bottom Line
- TLBMC - Triple Layered Business Model Canvas
CHAPTER 1. INTRODUCTION

Currently, there are common global economic, social and environmental challenges. Around the world, people are working to find resources and financing solutions to make progress. Furthermore, public and private investments are clearly needed, specifically, in developing economies where infrastructure, food security, education, human health and climate change are identified sectors with the greatest need for development (United Nations, 2015).

Over the past 15 years, the Latin American region has seen huge social improvements; in terms of reduced poverty, inequality, and hunger; as well as economic and technological progress. But there are still environmental and social challenges facing the region and putting the future of economic growth, stability, and shared prosperity at risk (Business & Sustainable Development Commission, 2017).

In this context, businesses play an important role in order to achieve long-term development. Therefore, it is considered a worthwhile input a framework proposal applicable to businesses in Latin America for a future better understanding of internal and external actors and process flows used as a value tool in a context of economic development opportunity linked to environmental and social growth.

1.1 - Motivation

Isabel Bernal Melgar is a Peruvian student who is currently studying a Master’s Degree in Innovation and Technological Entrepreneurship (MIETE) at the University of Porto (Portugal). This research is presented jointly with the dissertation as the final part of the master’s program.

Isabel studied Industrial Engineering in Peru. During the university studies, she was part of interdisciplinary teams as a volunteer. It was there where her interest in sustainability issues arose. As a result, in 2014, she participated as a volunteer and trainer in environmental issues at the United Nations Climate Change Conference (COP20) in Peru. Then, she was working for multinational companies as an intern. In 2016, she decided to study more thoroughly the global business environment outside her native country. For this reason, she applied for an Erasmus scholarship, being awarded a full scholarship for two years (European academic year 2016-2018). Currently, Isabel is still interested in sustainability issues because she firmly believes that it is a fundamental basis for the development of society. Therefore, this research focuses on business sustainability in Latin America.
Nowadays, many businesses have adopted strategies related to the care of the environment and social responsibility in order to obtain financial benefits. Therefore, the concept of sustainability has been more popular, being adopted by firms in developed countries. However, the case of developing countries is different, since it has another social, environmental, cultural, financial and political reality. Also, their level of commitment to take measures that increase development is lower compared to developed countries.

In addition, the researcher took as a business approach a context limited to Latin America because according to her own experience, cultural environment and contact with updated information, she identified the need to generate more tools for organization, structuring and measuring in business to follow fostering the trend towards sustainable development and the application of good practices that benefit both private and public businesses, government, society and the environment.

Therefore, the researcher focused on the topic of creating a business model tool with a focus on sustainability and that can be applied to a Latin American context.

1.2 - Objective of the Research

**General objective:**
Propose a business model tool oriented towards sustainability and aimed at its application in Latin America

**Specific objectives:**
1. Identify the research opportunity from the literature review and define research questions
2. Analyze the information related to the context and show results from an exploratory study considering its application in a Latin American context
3. Propose a business model tool oriented towards sustainability based on the Business Model Canvas - BMC, considering its application in a Latin American context (in specific Peru)

1.3 - Overview of the Methodology

The applied methodology begins with the exploratory search in diverse bibliographic sources related to keywords such as sustainability, ethics, society, business, and innovation. After that, a review and weighing of the information already collected were carried out, as a result, a literature review was obtained. Then, different current needs were identified and presented as research opportunities. These research opportunities led to the research question presented below:

*How can existing business models be optimized towards sustainability in a Latin American context?*

The research question directs the researcher to the evaluation and justification of possible solutions to the problem. In this process, the following question is, also, analyzed:
What factors should be considered in the Latin American businesses?

Then, after the research methodology being applied to a exploratory study, the information collected wil be shown. As a result, a business model tool will be proposed.

After the proposal tool, it will not be possible to validate it because of time limitations.

1.4 - Structure of the Dissertation

This Work is organized in 7 chapter and 2 annexes, as following:

Chapter 1. shows the introductorial topics related to the research. In addition, it details the motivation and objectives of the research and the overview of the methodology.

Chapter 2. presents the structured literature review. Also, it analyzes the research opportunities and identifies the research topic. Also, it describes main concepts related to sustainable business and details information related with Latin American Businesses.

Chapter 3. explains the methodology of the research conducted. The research questions and the research design are detailed.

Chapter 4. shows the results of the exploratory research, considering secondary and primary information.

Chapter 5. presents a business model tool oriented towards sustainability in Latin American context.

Chapter 6. details the results and the limitations of the study through the conclusions.

And 2 annexes,

Annex A. presents the structure of a questionnaire.

Annex B. presents the online version of the questionnaire in Spanish.
CHAPTER 2. LITERATURE REVIEW

2.1 - Chapter 2. Introduction

This chapter details the research opportunities and the general concepts to be taken into account, mainly related to sustainability, sustainable development and corporate sustainability.

2.2 - Literature Review: Research Opportunities

A literature review is defined as a “systematic, explicit, and reproducible method for identifying, evaluating, and synthesizing the existing body of completed and recorded work produced by researchers, scholars, and practitioners” (Fink, 2015). In other words, the process of collecting and classifying relevant information must be carried out. Likewise, the information processed should serve as a basis on which new information can be constructed (Bem, 1995).

Therefore, the researcher performed the systematic search of the information in reliable sources. In this specific chapter, bibliographic databases from 2002 to 2017 that include summaries and citations of scientific journals articles was used. Also, for the accomplishment of the information gathering the following keywords were selected: sustainability, ethics, society, business, and innovation.

The information collected was analyzed and classified. Subsequently, table 2.1 and table 2.1 were obtained. It shows the information of 11 articles highlighting future research, as shown below:
<table>
<thead>
<tr>
<th>Authors by Year</th>
<th>Keywords</th>
<th>Contributions</th>
<th>Research Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Cairns Jr, John, 2003)</td>
<td>Top-down strategy, Bottom-up strategy, Sustainability strategies, Eco-ethics, Value judgments</td>
<td>Presents the efficient integration of top-down and bottom-up strategies.</td>
<td>One hopes that reason guided by evidence will result in some precautionary measures being taken, such as increasing training programs at universities and colleges and, as soon as possible, in general school systems, which will enable all citizens to become literate in this area.</td>
</tr>
<tr>
<td>(Gettasakko, 2007)</td>
<td>Economic sustainability, Supply chain management, Senior management</td>
<td>Presents clearer understanding of key determinants that drive corporate sustainability and barriers that hinder its development.</td>
<td>Future research should broaden the sample of this exploratory study to improve generalization of the findings. It would also be beneficial to pursue comparative research between industries, countries and regions.</td>
</tr>
<tr>
<td>(Stogar et al., 2007)</td>
<td>Corporate social responsibility, Process analysis, Business performance</td>
<td>Provides a much differentiated (since cross-industry) view on the drivers and barriers to corporate sustainability.</td>
<td>In terms of a valid business case for corporate sustainability, evidence suggests that companies have “room to maneuver”. Corporate laggards have significant potential to improve their social and environmental performance and at the same time improve their bottom line.</td>
</tr>
<tr>
<td>(Fernando, 2012)</td>
<td>Strategic corporate sustainability, Strategic national sustainability, Sustainable globalization, Sustainable policy, Sustainable business, Sustainable consumption, Sustainable development, Corporate social responsibility</td>
<td>Presents a conceptual framework and a set of conditions to embed sustainability in corporate/national strategy.</td>
<td>Business needs to strive for strategic corporate sustainability where by the commitment to sustainability should be followed by the embedding of sustainability in corporate strategy.</td>
</tr>
<tr>
<td>(Müller, 2012)</td>
<td>Sustainability, Value proposition</td>
<td>Shows a tool to help companies develop innovative products and services that are sustainable for the environment, the economy and society: the Sustainable Value Proposition Tool (SVPT).</td>
<td>There are still gaps that must be closed to develop the SVPT further.</td>
</tr>
<tr>
<td>(Stoughton et al., 2012)</td>
<td>Sustainability, Organizational culture, Organizational change, Triple bottom line, Corporate citizenship, Corporate social responsibility, Sustainable development</td>
<td>Provides an integrative model for how commitment to sustainability emerges at the organizational, functional, and individual levels within organizations.</td>
<td>Further research in the area of sustainability’s impact on an organization’s culture is needed. More research needs to be performed to study how and why companies become sustainable and to analyze the cultural impact of sustainability.</td>
</tr>
<tr>
<td>(Dodd et al., 2013)</td>
<td>New Zealand, Green issues, Innovation, Wines. Spirits, Competitive strategy, Environment</td>
<td>Examines the current sustainability initiatives undertaken by wineries, what drives the wine industry to engage in sustainable practices and barriers to implementing sustainable practices.</td>
<td>Future research should assess the extent to which these two groups (certified organic or biodynamic wineries) practice environmental sustainability and if the difference in motivation affects their degree of sustainability practices.</td>
</tr>
</tbody>
</table>
Analyzing all the research opportunities, the researcher identified the necessity of developing more sustainable tools (Müller, 2012) because companies have “room to maneuver” with the potential to improve their social and environmental performance at the same time to improve their bottom line (Setthasakko, 2007). An efficient tool can be created with bases of improvements of existing frameworks like the Corporate Sustainability Integration Framework (Fernando, 2012) (Engert, 2015) and the Theoretical Framework for Enterprise Model Innovation (Zollo et al., 2013). Also, will be important to understand the role of the different actors involved as the case of understanding the processes that companies undertake to answer to stakeholder resolutions for economic, natural environment, and social resources (Herremans et al., 2016). Finally, it is also relevant to highlight the pursue comparative research between industries, countries, and regions (Setthasakko, 2007). Therefore, it is also decided to delimit the research to a specific geographical context.
2.3 - Sustainable Development

According to United Nations, the global concept of sustainable development is: “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987).

In the context of Latin America And Caribbean, the sustainable development goals should underpin policies in an integrated way related to the sectors: industrial, macroeconomic, social, labour and environmental. In order to advance towards structural change, it is important to combine a shift in the production matrix considering the following features (United Nations,2013):

- Being more productive and environmentally sustainable by incorporating technological progress and narrowing gaps between sectors
- Having more proactive macroeconomic policy to encourage productivity and investment. Also, social and labour policies that team structural change with redistributive impacts
- Making improvements in the working world and fairer distribution of productivity gains among the factors of production

The integrated vision of development proposed for Latin America and Caribbean region (see table 2.3) shows targets and indicators associated with the sustainable development goals. In addition, the identified factors will help to indicate the progress made towards a new development model.

Table 2.3 Gaps Impeding The Achievement Of Sustainable Development

(Latin America and Caribbean)


<table>
<thead>
<tr>
<th>GAPS IMPEDING THE ACHIEVEMENT OF SUSTAINABLE DEVELOPMENT</th>
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<tr>
<td>Inequality</td>
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<tr>
<td>-------------</td>
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<tr>
<td>Despite the progress made in this area, many inequalities persist.</td>
</tr>
</tbody>
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The following structural change are expected for social and economic equality and environmental sustainability to close structural gaps (United Nations, 2013):
- Education: Increased labour productivity with decent employment and full access to labour rights
- Gender Education Parity: Physical autonomy, economic autonomy, and empowerment for women
- Productivity: Increased labour productivity with decent employment and full access to labour rights
- Environment: Environmental sustainability with full internalization of externalities
- Policy and institutions: Regulation, taxation, financing and governance of natural resources that give the right signals to the private sector (with co-responsibility for the sustainable development)
- Governance: A global governance with the participation of society for effective decision-making. The aim is to achieve fair trade, technology transfer, international financial reform and new financing mechanisms

2.4 - Social Responsibility (SR)

According to the ISO 26000, Social Responsibility is "the responsibility of an organization for the impacts of its decisions and activities on society and the environment, through transparent and ethical behaviour that:

- contributes to sustainable development;
- including health and the welfare of society;
- takes into account the expectations of stakeholder;
- is in compliance with applicable law and consistent with international norms of behaviour; and
- is integrated throughout the organization and practised in its relationships".

Also, ISO 26000 explains that “Social Responsibility is closely linked to sustainable development. Because sustainable development is about the economic, social and environmental goals common to all people, it can be used as a way of summing up the broader expectations of society that need to be taken into account by organizations seeking to act responsibly. Therefore, an overarching goal of an organization’s social responsibility should be to contribute to sustainable development”.

The figure 2.1 shows the interaction of society, organization and stakeholders considering their impacts, interests and expectations.

**Figure 2.1** Organizations interaction: Impacts, Interests and Expectations

*Source: Adapted from ISO 26000*
2.4.1 - Corporate Social Responsibility (CSR)

Corporate social responsibility can be defined as the "theory of the corporation that emphasizes the responsibility to make money and the responsibility to interact ethically with the surrounding community". Moreover, CSR is considered "a specific conception of the responsibility to profit while playing a role in broader questions of community welfare".

Additionally, CSR is based on four obligations: economic responsibility (to make profits), legal responsibility (to adhere to rules and regulations), ethical responsibility (to do what’s right even when is not required by law) and philanthropic responsibility (to contribute to society's projects even when they're not involved in a business) (Brusseau, 2013).

2.4.2 - The Triple Bottom Line (TBL)

The concept of the Triple Bottom Line (TBL) comes from the mid-1990s. After some years, it was popularized by John Elkington. TBL is a concept that expands the notion of organizational performance evaluation including the traditional financial bottom line, environmental quality and social justice (Elkington, 1999).

Some companies follows the TBL in order to operationalize sustainability in corporate decision making. The TBL works keeping the economic, ecological and social developments in balance (see figure 2.2).

![Figure 2. 2 Triple bottom line of sustainability](source: Adapted from M. Kannegiesser et al. (2015))

In addition, Elkington (1998) stressed the integration of philosophy and accounting measures in implementing TBL. He suggested seven environmental drivers presented below (see table 2.4):
2.4.3 - Stakeholder Theory

According to Freeman view (1984), stakeholder theory describes those individuals and groups who will be affected by (or affect) the company’s actions. Besides, stakeholder has the right and obligation to participate in activities related to the corporation direction.

In addition, the stakeholder theory proposes the following questions as bases:

- “What are their legitimate claims on the business?”
- “What rights do they have with respect to the company’s actions?”
- “What kind of responsibilities and obligation?”

2.5 - Corporate Sustainability (CS)

Corporate Sustainability (CS) “is defined as a company’s delivery of long-term value in financial, social, environmental and ethical terms” (United Nations Global Compact 2010, p. 4). Also, as a concept, “Corporate Sustainability refers to the integration of economic, environmental, and social considerations on the part of corporations” (Strand 2014, p. 688).

The sustainability approach aims to reduce the negative environmental and social impacts of corporate activities while improving (or at least not reducing) the economic performance of the corporation. Also, corporate sustainability can improve the sustainability performance of other actors and systems such as the individual company, business community, society and nature; all of them can be benefit from more sustainable corporate behavior (Baumgartner et al., 2017).
2.6 - CS, CSR and TBL: Definition relationships

According to The Erasmus University’s Business Society Management (Wempe et al., 2002), Corporate Sustainability (CS) is the ultimate goal with Corporate Social Responsibility (CSR) as an intermediate stage where companies try to balance the Triple Bottom Line (TBL).

In addition, Marrewijk (2003) considers the position of Corporate Social Responsibility (CSR) as a phenomena such as transparency, stakeholder dialogue and sustainability reporting, while the approach of Corporate Sustainability (CS) focuses on value creation and management of environmental, human and capital issues (see figure 2.3).

![Figure 2. 3 Relationship: CS, CSR and 3P](source: Adapted from Marrewijk (2003) and Wempe & Kaptein (2002))

2.7 - The Corporate Transformation

To become a sustainable business; Benn, Edwards and Williams (2014) suggest to create value efficiently with a proactive strategy. The following diagram (see figure 2.4) shows how the phases fit into each of the steps ("waves") of corporate change: from enterprises which show refusal and denial to be sustainable until enterprises which want a corporate transformation.

Benn, Edwards and Williams (2014) describe each “wave” according to the different levels of the enterprise.

1) **The first wave**: It is focused on organizations that still in the phases of rejection and non-responsiveness.

2) **The second wave**: It is focused on organizations that have considerations of risk, cost and competitive advantage. As shown in the diagram (see figure 2.5), these organizations are directed linearly to corporate sustainability practices.

3) **The third wave**: It is focused on the "corporative transformation" in an integrate way.
Also, the arrows at the foot of the diagram show how each phase affects the value of the organization. In detail, the rejection of sustainability destroys the value of the firm, as it increases risk; non-responsiveness limits value; compliance conserves value by reducing risk, and efficiency and strategic proactivity create value. Finally, the sustaining corporation represents a transformation of the corporation into a "truly sustainable business" that is adding value to the business itself and also adding value for society and for the environment (Benn et al., 2014).

![Figure 2. 4 Waves of Sustainability](image)

**Source:** Adapted from Benn et al. (2014, p. 22)

### 2.8 - Corporate Sustainability as a Company’s Strategy

Engert, Rauter and Baumgartner (2016) consider corporate sustainability is an important integrated part of the business strategy and processes. They explored the integration of corporate sustainability into strategic management and identified relevant issues by applying a qualitative content analysis based on scientific journal articles.

Three essential areas of corporate sustainability integration are defined: organizational influences; internal and external drivers; and, supporting and hindering factors (see figure 2.5).

1) **The organizational influences** are circumstances that form the necessary bases for the development of activities of a company and the success of managing business processes. They are divided into internal organizational influences (company size, scope and structure) and external organizational influences (industry type, structure and position within the industry).

2) **Internal and external drivers** are factors that promote the integration of corporate sustainability into strategic management.

3) **Supporting and hindering factors** with respect to corporate sustainability integration are elements that influence the process of integrating corporate sustainability in strategic
management. Also, must be noted that the influence each factor could be positive or negative.

**Figure 2.5** Emerged issues from exploring the integration of corporate sustainability into strategic management

*Source: Engert et al. (2016)*

In addition, there are some sustainability topics concerning a corporate sustainability strategy. These economic, environmental and social issues are related to some input and output flows. “Regarding management methods and instruments, companies can implement and run environmental (e.g., ISO 14001; EMAS) or social (e.g., SA 8000) management systems, integrated management systems, or use specific management instruments to address environmental or social issues (e.g., LCA, sustainability balanced scorecards, or environmental cost accounting)”. Also, the economic dimension should include sustainability activities for the financial stability and liquidity, profitability and general financial benefits for the company (Baumgartner et al., 2017).

The following system (see figure 2.6) shows groups of relevant actors with inputs and outputs that should be considered in the development of corporate sustainability strategy:
2.9 - Toward Sustainability

Sustainability is the result of a process with different internal and external actors of a system. Within this system, "values" are considered as an initial element of the process, since culture and ethics have this element as a basis. According to the cultural and ethical characteristics of an individual, the "ethical blindness" appears in the sub-process of "decision-making" (see figure 2.7).

Ethical blindness is the temporary inability to see the ethical dimension of a decision at stake (Palazzo et al., 2012). "Routines" (as “the way of doing things”), "time pressure" (as a “battle against the clock”) and “peer pressure” (as “what peers would do in my place”) are some examples of situations that lead to ethical blindness (Reboulet, 2017).
Furthermore, to perform an “act”, it is considered three boundaries: ethics (set of values of every person) considering the “ethical blindness”, law (constituted by mandatory rules for everyone) and moral (constituted by rules not obligatory for everyone but defined and accepted by some groups of society - e.g. political, social customs, ideologies and religion groups-) (Rodrigues & De Sousa Aroso, 2014) (see figure 2.8).

**Figure 2. 8 Ethical Blindness**  
Source: Adapted from Reboulet (2017)

The set of actions to be taken by an organization is reflected in the incorporation of core policies and procedures. Policies can be supported by reports that showcase the sustainability and social responsibility initiatives of the company. These reports are known as: “sustainability reporting”.

Then, the evolution of sustainability reporting from 1960 to 2012, according to different indicators and stakeholders is shown (see table 2.5):

**Table 2. 5 Evolution of Sustainability Reporting (1960-2012)**  
Source: Alonso-Almeida et al. (2013)

<table>
<thead>
<tr>
<th>PERIOD</th>
<th>INDICATORS</th>
<th>STAKEHOLDERS</th>
<th>DIFFUSION METHOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960-1969</td>
<td>Human resource tools</td>
<td>Employees</td>
<td>Internal</td>
</tr>
<tr>
<td></td>
<td>Philanthropic programmes</td>
<td>Local community</td>
<td>External, through marketing actions</td>
</tr>
<tr>
<td>1980s</td>
<td>Structural transformation of the organization Behavioural codes</td>
<td>Consumers Shareholders and investors Society Government</td>
<td>Specialised departments Communication by financial report</td>
</tr>
<tr>
<td>1990s</td>
<td>Environmental indexes</td>
<td>Shareholders and investors Society Lobbies</td>
<td>Communication by financial report Environmental report Social report</td>
</tr>
<tr>
<td></td>
<td>Social indexes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000-present</td>
<td>Development of environmental and social indexes Standardised and certified international systems</td>
<td>Shareholders and investors Social report GRI AA1000 ISO26000</td>
<td>Environmental report Social report GRI AA1000 ISO26000</td>
</tr>
</tbody>
</table>
Finally, the compliance of the policies, will give as expected outcome the sustainability in the three axes (social, environmental and financial dimension) of balanced and synergistic development (see figure 2.8).

2.10 - Business Model

2.10.1 - Business Model Canvas

“The Business Model Canvas (BMC) is a tool that can be used to visualize an existing or potential business model in a single page. The tool can be used by individuals and organizations to facilitate design and re-design of business models as it provides a shared language of business model terms and clarifies their relations” (França et al., 2017).

The BMC covers the four main areas of a business: customers, offer, infrastructure, and financial viability through the development of nine blocks presented below (see table 2.6 and figure 2.9):

Table 2.6 The 9 Building Blocks of BMC - Concepts

<table>
<thead>
<tr>
<th>Block</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Customer Segments (CS)</td>
<td>Defines the different groups of people or organizations an enterprise aims to reach and serve</td>
</tr>
<tr>
<td>2. Value Propositions (VP)</td>
<td>Describes the bundle of products and services that create value for a specific customer segment</td>
</tr>
<tr>
<td>3. Channels (CH)</td>
<td>Describes how a company communicates with and reaches its customer segments to deliver a value proposition</td>
</tr>
<tr>
<td>4. Customer Relationships (CR)</td>
<td>Describes the types of relationships a company establishes with specific customer segments</td>
</tr>
<tr>
<td>5. Revenue Streams (RS)</td>
<td>Represents the cash a company generates from each customer segment</td>
</tr>
<tr>
<td>6. Key Resources (KR)</td>
<td>Describes the most important assets required to make a business model work</td>
</tr>
<tr>
<td>7. Key Activities (KA)</td>
<td>Describes the most important things a company must do to make its business model work</td>
</tr>
<tr>
<td>8. Key Partnerships (KP)</td>
<td>Describes the network of suppliers and partners that make the business model work</td>
</tr>
<tr>
<td>9. Cost Structure (CS)</td>
<td>Describes all costs incurred to operate a business model</td>
</tr>
</tbody>
</table>

Source: Osterwalder et al. (2010)
Osterwalder and Pigneur (2010) proposed that understanding changes in the environment helps to adapt a model more effectively to shifting external forces. Also, considering the business model a “design space”, they suggested mapping the following four environment areas: market forces, industry forces, key trends, and macroeconomic forces (see table 2.7 and figure 2.10).
### Table 2. 7 Business Model Environment - Concepts

**Source:** Osterwalder et al. (2010)

<table>
<thead>
<tr>
<th>Market Forces</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Issues</td>
<td>Identifies key issues driving and transforming market from Customer and Offer perspectives</td>
</tr>
<tr>
<td>Market Segments</td>
<td>Identifies the major market segments, describes their attractiveness and seeks to spot new segments</td>
</tr>
<tr>
<td>Needs and Demands</td>
<td>Outlines market needs and analyzes how well they are served</td>
</tr>
<tr>
<td>Switching Costs</td>
<td>Describes elements related to customers switching business to competitors</td>
</tr>
<tr>
<td>Revenue Attractiveness</td>
<td>Identifies elements related to revenue attractiveness and pricing power</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Industry Forces</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Competitors</td>
<td>Identifies incumbent competitors and their relative strengths</td>
</tr>
<tr>
<td>New Entrants</td>
<td>Identifies new, insurgent players and determines if they compete with another type of business model</td>
</tr>
<tr>
<td>Substitute Products and Services</td>
<td>Describes potential substitutes for offers (includes any markets and industries)</td>
</tr>
<tr>
<td>Suppliers and Other Value Chain Actors</td>
<td>Describes the key value chain incumbents in the market and spots new, emerging players</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Specifies which actors may influence the organization and business model</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key Trends</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology Trends</td>
<td>Identifies technology trends that could threaten the business model or enable it to evolve or improve</td>
</tr>
<tr>
<td>Regulatory Trends</td>
<td>Describes regulations and regulatory trends that influence the business model</td>
</tr>
<tr>
<td>Societal and Cultural Trends</td>
<td>Identifies major societal trends that may influence the business model</td>
</tr>
<tr>
<td>Socioeconomic Trends</td>
<td>Outlines major socioeconomic trends relevant to the business model</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Macroeconomic Forces</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Market Conditions</td>
<td>Outlines current overall conditions from a macroeconomic perspective</td>
</tr>
<tr>
<td>Capital Markets</td>
<td>Describes current capital market conditions as they relate to the business capital needs</td>
</tr>
<tr>
<td>Commodities and Other Resources</td>
<td>Highlights current prices and price trends for resources required for the business model</td>
</tr>
<tr>
<td>Economic Infrastructure</td>
<td>Describes the economic infrastructure of the market in which the business operates</td>
</tr>
</tbody>
</table>

### Figure 2. 10 Business Model Environment - Design

**Source:** Osterwalder et al. (2010)
2.10.3 - Sustainable Business Model Canvas

Sustainable Business Models emerge from the development of new business models which go beyond an exclusively economic approach. These new models generate and integrate economic, environmental and social value aspects through the actions of an organization.

Joyce and Paquin (2016) proposed a tool for exploring sustainability-oriented business model innovation called Triple Layered Business Model Canvas (TLBMC).

The TLBMC is based on the Triple Bottom Line (TBL) perspective where organizations account for their economic, environmental, and social impacts, adopting a holistic view of corporate sustainability. Moreover, “TLBMC provides ‘horizontal’ coherence within each canvas layer for exploring economic, environmental and social value individually and ‘vertical’ coherence integrating value creation across the three canvas layers; which supports developing a deeper understanding of an organization’s value creation” (Joyce et al., 2016) (see figure 2.11).

**Figure 2.11** Two new dynamics of the TLBMC: horizontal and vertical coherence

*Source: Adapted from Joyce et al. (2016)*

The following layers are used as basic tools, prior to the analysis of their horizontal coherence and vertical coherence (see figure 2.12, 2.13 and 2.14; table 2.8 and 2.9):

1) Economic Layer

- **Main Objective:** Evaluate how the organization generates new revenue streams with higher margins supporting cost impacts.
- **Benefit:** Show the logic of how a company intends to make money covering four main areas of a business: customers, offer, infrastructure and financial viability.
2) Environmental Layer

- **Main Objective**: Evaluate how the organization generates more environmental benefits than environmental impacts.

- **Benefit**: Allow better understand where the organization’s biggest environmental impacts lie within the business model, in order to provide insights for where the organization may focus its attention when creating environmentally oriented innovations.

**Figure 2. 13 Environmental Layer**

Source: Joyce et al. (2016)
Table 2. 8 Environmental Layer - Concepts
Source: Joyce et al. (2016)

<table>
<thead>
<tr>
<th>Environmental Layer</th>
<th>Concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Functional Value</td>
<td>Organization's mission focused on the service performance or the needs fulfilled in a product system (usually presented as a quantitative description).</td>
</tr>
<tr>
<td>2. Materials</td>
<td>Bio-physical stocks (key materials) used to render the functional value.</td>
</tr>
<tr>
<td>3. Production</td>
<td>Actions that the organization undertakes to create value.</td>
</tr>
<tr>
<td>4. Supplies and</td>
<td>Various necessary (but not &quot;core&quot;) material and production activities for the functional value.</td>
</tr>
<tr>
<td>Outsourcing</td>
<td></td>
</tr>
<tr>
<td>5. Distribution</td>
<td>Physical means by which the organization ensures access to its functional value.</td>
</tr>
<tr>
<td>6. Use phase</td>
<td>Stage focuses on client's partaking impact in the organization's functional value (or core service/product).</td>
</tr>
<tr>
<td>7. End-of-life</td>
<td>Activities after the end of the functional value consumption (such as material reuse or disposal of a product).</td>
</tr>
<tr>
<td>8. Environmental</td>
<td>Ecological costs of the organization's actions usually related to bio-physical measures (such as CO2 emissions, water consumption, ecosystem impact and others).</td>
</tr>
<tr>
<td>Impacts</td>
<td></td>
</tr>
<tr>
<td>9. Environmental</td>
<td>The organization's ecological value generated from environmental impact reductions.</td>
</tr>
<tr>
<td>benefits</td>
<td></td>
</tr>
</tbody>
</table>

3) Social Layer

- Main Objective: Capture the key social impacts of the organization that derive from the relationship between the stakeholders and the organization.
- Benefit: Allows better understanding of where are an organization's primary social impacts and provides insight, in order to exploring ways to innovate the organization's actions and business model to improve its social value creation potential.

Figure 2. 14 Social Layer
Source: Joyce et al. (2016)
Table 2. 9 Social Layer - Concepts

Source: Joyce et al. (2016)

<table>
<thead>
<tr>
<th>Social Layer</th>
<th>Concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Social Value</td>
<td>Organization’s mission focused on creating benefit for its stakeholders and society more broadly.</td>
</tr>
<tr>
<td>2. Employee</td>
<td>Role of employees as a core organizational stakeholder.</td>
</tr>
<tr>
<td>3. Governance</td>
<td>Organizational structure and decision-making policies of an organization.</td>
</tr>
<tr>
<td>4. Communities</td>
<td>Social relationships built with suppliers and their local communities.</td>
</tr>
<tr>
<td>5. Social Culture</td>
<td>The potential impact of an organization on society as a whole.</td>
</tr>
<tr>
<td>6. Scale of Outreach</td>
<td>The depth and breadth of the relationships an organization builds with its stakeholders through its actions over time.</td>
</tr>
<tr>
<td>7. End-users</td>
<td>Way to contributing the end-user’s quality of life addressing their needs.</td>
</tr>
<tr>
<td>8. Social Impacts</td>
<td>Address the costs arising from the social impacts of an organization. These depend on the nature of the organization.</td>
</tr>
<tr>
<td>9. Social Benefits</td>
<td>Positive social value creating aspects of the organization’s action.</td>
</tr>
</tbody>
</table>

2.11 - Chapter 2 - Conclusions

In the literature review, the need for the development of new business tools oriented to sustainability for different contexts and realities is identified. In addition, key concepts are detailed to take into account previously to the proposal of the methodology.
Bringing sustainability to Business Model thinking in Latin America
CHAPTER 3. METHODOLOGY

3.1 - Chapter 3 - Introduction

This chapter, details the research questions divided into main question and secondary question. In addition, the research design to be used is described.

3.2 - Research Questions

After the analyzing the literature review, the researcher will detail a proposal of a sustainable business tool in order to answer the following research questions:

Main question:

- How can existing business models be optimized towards sustainability in a Latin American context?

Secondary question:

- What factors should be considered in the Latin American businesses?

3.3 - Research Design

The Research Design will follow a conceptual framework which combine behavioral science and design science paradigms. “The behavioral science paradigm seeks to develop and verify theories that explain or predict human or organizational behavior. The design-science paradigm seeks to extend the boundaries of human and organizational capabilities by creating new and innovative artifacts” (Hevner et al., 2004, pag.0). Also, the utility of a new artifact is verified just if it is neccessary to be created (relevant), if it is adequate to the real world (rigor), if it solves the problem (search, implementability), if it is demonstrated (evaluation) and if it shows a contribution (contribution). Additionally, the problem, the artifact and its utility must be presented clearly in the research and practice to obtain an appropriate publication (communication) (Hevner et al., 2004).
The following framework explains the Design Science Approach of the research:

**Figure 3.1 Design Science Approach Framework**

*Source: Adapted from Hevner et al. (2004, p. 80)*

The research process is based on the exploratory study based on Latin American reality (in specific Peru). In this context, the sustainability awareness of SMEs, their current policies and business models are analyzed. Then, taking into account the results of the exploratory study, the proposal of a business tool will be made. However, this tool can not be validated due to time limitations during this investigation.

### 3.3.1 - SMEs in Latin America and Peru

The report of the United Nations and ECLAC, “The European Union and Latin America and the Caribbean in the face of the new economic and social situation” (“La Unión Europea y América Latina y el Caribe ante la nueva coyuntura económica y social”, 2015) mentions that both in the European Union and in Latin America & the Caribbean, SMEs represent 99% of the number of companies; In addition, they generate between 40% and 80% of employment.

According to the Development Bank of Latin America (2016), “SMEs represent more than 90% of companies in Latin America, and they generate more than half of the employment, and one fourth of GDP”.

Focusing only on Peru, the National Institute of Statistics and Informatics - Peru segments companies into four parts: microenterprise, small business, large and medium enterprises and public administration companies. In the report “Peru: Business Structure 2016” (“Perú: Estructura Empresarial 2016”, 2017), it is observed that only considering the segment of micro and small businesses, it reaches covering 99.1% of the total number of companies in the country. Therefore, the focus on SMEs as a potential segment of economic development in the country (see table 3.1).
Bringing sustainability to Business Model thinking in Latin America

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Table 3.1 Peru: Business Structure 2016


<table>
<thead>
<tr>
<th>Segmento empresarial</th>
<th>2015</th>
<th>2016</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>2 042 992</td>
<td>2 124 280</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Microempresa</td>
<td>1 933 525</td>
<td>2 011 153</td>
<td>94.7%</td>
<td></td>
</tr>
<tr>
<td>Pequeña empresa</td>
<td>89 993</td>
<td>92 789</td>
<td>4.4%</td>
<td></td>
</tr>
<tr>
<td>Gran y mediana empresa</td>
<td>12 494</td>
<td>13 031</td>
<td>0.6%</td>
<td></td>
</tr>
<tr>
<td>Administración pública</td>
<td>6 980</td>
<td>7 307</td>
<td>0.3%</td>
<td></td>
</tr>
</tbody>
</table>

In addition, several studies by EY Peru (Perspectives EY Peru, 2015) indicate that: firstly, when a worker is employed in a formal SME, he can see improvements in his quality of employment, in terms of stability, benefits and income. Second, society will benefit from the tax contribution and increased productivity. Thanks to this measure, the country would become more productive and competitive, and the population would be more prosperous. With this consideration, SMEs are shown as the basis of development.

3.3.2 - Exploratory Research

In order to answer the research question, is important to understand the factors which are envolved in the context of a Latin American reality (in specific Peru). For this reason, an exploratory research was developed divided into two types of information source: secondary information (opinions of business leaders in Latin America and Peru - source: conferences and report) and primary information (opinions of Peruvian university communities - source: questionnaire).

Secondary Information

The following opinions, conferences and report, are raised to get the perspectives of business leaders (in Latin America and Peru) about sustainability in business:

Andrea Padrilla, director of GRI in Latin America, explained that accountability allows decision making on an annual basis, and that although sustainability reports are currently in many companies, they are almost always the same. The objective is to massify SMEs, which "are the ones that move the economy of Latin America". Also, in the "VI Forum Multilatinas de América Economía", she emphasized the following considerations:

- "It is a great challenge for ‘multilatinas’ companies, since they must have a long-term plan in their businesses to see the benefits"
- "There are some companies in the region that have established sustainability policies, but they are only applied in their headquarters and have not crossed borders with businesses"
- "For business, trust is perhaps the most crucial parameter and it is on the downside, which is highly sensitive in Latin America, where a series of corruption cases have exploded in the agendas of the media and public opinion"
- "The correct action of sustainability practices can significantly increase the value of the shares of a company"

In 2016, The Global Reporting Initiative (GRI) and A.T. Kearney published the report “Direccionando La Sostenibilidad Desde El Directorio - El Caso Latinoamericano” (Addressing sustainability from the directory - The Latin American case), made up of 275 executives in Latin America (leaders of boards of directors in Argentina, Brazil, Chile, Colombia and Peru) representatives of 547 Latin American companies. This report shows the assessment of corporate sustainability awareness and the initiatives of the companies and management personnel involved. Next, the main results:

- “62% of the directors declare to be knowledgeable about sustainability issues and to be aware of the latest developments in the matter, but only 44% express having a ‘formed opinion’ on the subject”
- “Only 30% of organizations substantially include the risks associated with sustainability in the integral risk system”
- “3 out of 4 directors demand to include sustainability as a determining element of the corporate strategy”

Latin American directors surveyed declare they understand sustainability in depth. They said they are aware of the importance for the company by generating financial value. However, they do not yet have an opinion formed on this matter and they cannot clearly establish how the transition from management to value occurs.

The risks identified from the management of sustainability are beginning to be included in the integral risk system, but the long-term vision -closely linked to the strategy- is still limited. For this reason, most of the directors demand to include sustainability as a determining element of the corporate strategy.

Currently, the directors surveyed would like to delve more deeply into issues related to the environment (considering water, biodiversity, emissions and energy), as well as transparency and the fight against corruption. In the future, the topics with the greatest interest that they would like to deepen focus on the operation of companies, specifically procurement practices and the supply chain; responsibility for the product and consumer rights.

This report also includes the perspective of 50 Peruvian directors about corporate sustainability in Peru, below the most important results found:

- 44% of Peruvian directors surveyed say they know the concept of sustainability, but indicate not to handle details
- 60% of the Peruvian participants consider that the sustainability is a business approach linked to the strategic direction of the company, versus 40% that considers it at a regional level.
- 52% of the companies surveyed do not make sustainability reports.
- Only 33% of the participants say they have an active role in the preparation of the sustainability report, locating Peru 5 points below the regional average.

Finally, Enrique Díaz Ortega, Founding Partner of MC & F Consultores - Peru, pointed out the following opinion: “Sustainability is present in the directory agendas of Peru, and does so for now privileging interaction with stakeholders. This presence is still partial, and it requires a deepening of knowledge about the concept. In addition, the perception of the leadership that the board should assume in this regard, becomes a reality.”

**Primary Information**

The following hypotheses are raised for the investigation of Peruvian university community’s perspectives about sustainability in SMEs in Peru. There are divided by each identified factor:

<table>
<thead>
<tr>
<th>Factor</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unawareness of sustainable basic concepts</td>
<td>Hypothesis 1 (H1): Basic concepts of sustainability are mostly unaware by members of the Peruvian university community</td>
</tr>
<tr>
<td>Importance of sustainability issues in SMEs</td>
<td>Hypothesis 2 (H2): Be a sustainable business is relevant for SMEs (in Peru) according to the members of the Peruvian university community</td>
</tr>
<tr>
<td>Importance of corporate sustainability for development</td>
<td>Hypothesis 3 (H3): Corporate sustainability is relevant for the development according to the members of the Peruvian university community</td>
</tr>
<tr>
<td>Lack of government participation and support for SMEs</td>
<td>Hypothesis 4 (H4): Government benefits for the implementation of sustainable policies in would have a positive impact in SMEs according to the members of the Peruvian university community</td>
</tr>
<tr>
<td>The transparency is related to sustainability</td>
<td>Hypothesis 5 (H5): Transparency is related to sustainability according to the members of the Peruvian university community</td>
</tr>
</tbody>
</table>

**Online questionnaire**

An online questionnaire was carried out (as a quantitative and qualitative tool) in order to assess the awareness and perspective of the Peruvian academic community on sustainability issues in small and medium-sized Peruvian companies (SMEs).
The questionnaire is composed of detailed instructions and simple questions related to basic concepts of sustainability in Peruvian SMEs. The questionnaire is composed of 4 sections: Part I: General Information, Part II: Sustainable Development and Corporate Sustainability, Part III: Sustainable Objectives and Social Responsibility Policies, Part IV: Relationship between general concepts; with a total of 21 questions. Closed, open, multiple-choice, and interval-scale questions were included. The questionnaire was written in two languages: Spanish (to be answered by the Peruvian public) and English (to be presented in this document). It was developed and shared through the online platform "Google Drive" (see annex A. and B.).

What are the main variables to be measured in the questionnaire? How these variables are included in the questionnaire?

There are seven most important variables measured: (1) Familiarity of the Peruvian academic community regarding sustainability issues, (2) Awareness of the Peruvian academic community about sustainability issues, (3) Perception of the Peruvian academic community on sustainability in SMEs, (4) Perception of the Peruvian academic community on SME’s awareness of sustainability, (5) Perception of the Peruvian academic community on sustainability issues for the development, (6) Perception of the Peruvian academic community on the adoption of sustainable practices in SMEs, and (7) Perception of the Peruvian academic community on the government benefits for the implementation of sustainable policies in SMEs. These variables are distributed throughout the structure of the questionnaire. The questionnaire is divided into four sections where the "Part I" includes the analysis of demographic variables, the "Part II" evaluates the familiarity, awareness and perception of sustainable development and corporate sustainability, the "Part III" evaluates the awareness and perception of sustainable objectives and social responsibility policies; and the "Part IV" evaluates the awareness of the relationship between relevant concepts of sustainability issues (see figure 3.2).
Target Audience

The questionnaire is addressed to the Peruvian university community; that is, undergraduate students, graduates, teachers and other academic members were included in the analysis.

The causes of having chosen as a target audience the Peruvian university community are: accessibility of the author's direct contact with the most representative university communities in Peru; the consideration of the university community as a public interested in research and development issues; and taking into account that, thanks to the academic level and work experience of them, they can provide a critical response to the performance of the SMEs in the Peruvian territory.

3.4 - Chapter 3 - Conclusions

The Research Design is presented through the Design Science Approach Framework, which shows the research structure in detail. In addition, the entry of information (primary and secondary) and the structure of the exploratory research are shown. With this exploratory research, the researcher seeks to answer the main and secondary research questions.
Bringing sustainability to Business Model thinking in Latin America

Isabel Bernal

MIETE | FEUP | 2016/18
CHAPTER 4. RESULTS OF THE RESEARCH

4.1 - Chapter 4 - Introduction

In this chapter, the results found as secondary information and primary information within the exploratory research are detailed.

4.2 - Characterization of sample

As a exploratory study, the analysis of opinions of Peruvian university communities was considered through a questionnaire (own elaboration) of closed questions and open questions. From this questionnaire, quantitative and qualitative results were obtained respectively. Likewise, the quantitative results are compared with the hypotheses proposed to validate or not validate these hypotheses.

The Peruvian university community was considered as the target audience. The questionnaire was aimed at people who have or had an academic university contact, including the following types of academic members: undergraduate student, graduate, professor, researcher, and other type of member.

The questionnaire was sent directly (via e-mail and personal social networks) to a total of 80 people, including the main types of academic members already mentioned.

The period of the questionnaire on the web was 14 days. Within this period, the sample obtained from the questionnaire was a total of 48 responses.

- The following results are presented according to the characterization of the sample corresponding to the "Part I: General information" of the questionnaire:

Of the total of respondents, the majority is female (65%). Besides, the highest percentage of people between 26 and 30 years of age predominates with 42% of the total (see figure 4.1 and 4.2).
Segmentation by region

Of the total of respondents, there is a tendency of responses from people who were born in the geographical region of the coast ("Costa") with 79%. According to this result, the researcher segmented the analysis for exclusively this Peruvian region, because this region has a high percentage of answers in comparison with the other two regions (Mountain Range and Amazon Forest) and because within this region are the most representative universities of Peru (the eight universities included in this study belong to this region); working from now on only with this fragment of the sample (considering now 38 responses) (see figure 4.3).
Within the group of respondents from the coastal region, 58% are graduates, 31% are professors, 5% are undergraduate students, 3% are researchers and 3% are other types of academic members (see figure 4.4).

**Figure 4. 4 Respondents by Academic Member Type - Coastal Region**
(38 responses)

Also, for purposes of analysis, the researcher grouped the academic members into two large groups: members with a theoretical approach, which are mostly linked to studies and works based mainly on theory (includes undergraduate students and teachers) and members with practical approach, which are more detached from the study environment and / or work in the university, but are mostly linked to a more commercial and industrial work performance environment (includes graduates and researchers) (see figure 4.5).

**Figure 4. 5 Groups of Academic Members by Approach- Coastal Region**
(38 responses)
According to the specialty of the respondents (from the coastal region), it is observed that the majority has the following fields of study: **engineering** (with 55% of the total) and **business** (with 13% of the total) (see figure 4.6).

**Figure 4.6 Field of Study - Coastal Region**

(38 responses)

Moreover, within the eight most representative universities in Peru (all belonging to the coastal region): "Pontificia Universidad Católica del Perú", "Universidad ESAN", "Universidad de Lima", "Universidad Nacional Agraria La Molina", "Universidad Nacional de Ingeniería Lima", "Universidad Nacional Mayor de San Marcos", "Universidad del Pacífico Perú", and "Universidad Peruana Cayetano Heredia", the largest amount of data was collected from six of them, with the "Universidad ESAN" and the "Pontificia Universidad Católica del Perú" being more representative. Additionally, the results of the comparison of the field of studies show that the majority of entries were from **engineering students**, reaching a maximum value of 11 responses within the university community related to the "Pontificia Universidad Católica del Perú" (see figure 4.7).
4.3 - Sustainable Development and Corporate Sustainability

- This section evaluates the familiarity, awareness and perception (of the Peruvian university community) of the following topics: sustainable development and corporate sustainability.

Most of the members with theoretical approach are acquainted with the term "sustainable development" (see figure 4.8) considering the university as the environment where most of them acquired knowledge on the subject (more than 50% of the total of members with theoretical approach) (see figure 4.9). In addition, the other environment where they learned about this topic was work (30% of respondents of the total of members with theoretical approach). However, it should be noted that because they are members with a theoretical approach, the work environment is linked to a university environment; in the case of undergraduate students because they have not yet finished their studies; and in the case of the teachers because they work within the university with theoretical concepts. Therefore, for this type of members, it can be considered that the acquisition of knowledge on "sustainable development" was acquired mostly in the university environment.

Most of the members with practical approach are acquainted with the term "sustainable development" (see figure 4.8) considering the university as the environment where the majority of them acquired knowledge on the subject (with a very high percentage of the total of members with practical approach: 85%) (see figure 4.9). It is noted, in particular, that none claimed to have learned about "sustainable development" at work.
Most of the members with theoretical approach are acquainted with the term "corporate sustainability" (see figure 4.9) considering the university and the work as the environments where most of them acquired knowledge on the subject (in each environment, approximately 43% of the total of members with theoretical approach) (see figure 4.10). Nevertheless, as mentioned above, it should be noted that because they are members with a theoretical approach, the work environment is linked to a university environment; in the case of undergraduate students because they have not yet finished their studies; and in the case of the teachers because they work within the university with theoretical concepts. For this reason, for this type of members, it can be considered that the acquisition of knowledge on "corporate sustainability" was acquired with greater tendency to a university environment.
Most of the members with practical approach are acquainted with the term "corporate sustainability" (see figure 4.10) considering the university as the environment where the majority of them acquired knowledge on the subject (approximately 64% of the total of members with practical approach) (see figure 4.11). It is noted, in particular, that none claimed to have learned about "corporate sustainability" in day to day situations.

In addition, none of the 38 respondents said they had learned the term "corporate sustainability" at school (see figure 4.11).

Figure 4. 10 Familiarity with Corporate Sustainability by Member Approach - Coastal Region (38 responses)

Figure 4. 11 Learning Environment of Corporate Sustainability by Member Approach - Coastal Region (38 responses)
To measure the level of awareness of the terms "sustainable development" and "corporate sustainability", conceptual questions were asked with true and false options (question 10 and 11 - first measurement). Later, the general definition of the concepts was introduced. After that, questions were asked again, some similar to the previous ones, with true and false conceptual options (question 14 and 15 - second measurement).

As shown in figure 4.12, considering the total of responses of coastal region, the correct identification of concepts increased, evidencing that, initially, respondents did not have a deep awareness of both issues. Also, it is observed that the concept of “corporate sustainability” is much more unknown than the concept of “sustainable development”.

In this step Hypothesis 1 is validated (H1: Basic concepts of sustainability are mostly unaware by members of the Peruvian university community).

**Figure 4. 12 Measurement of the recognition of concepts - Coastal Region**

(38 responses)

In addition, analyzing the recognition of the term "Sustainable Development" by gender, it is observed that men are more aware than women of this issue both in the first and in the second measure; since more than 92% of all men respondents, within the coastal region, adequately identified this concept. Also, more than 20% of the total of women, within the coastal region, improved the identification of the concept.
Analyzing the recognition of the term "Corporate Sustainability" by gender, it is observed that women are more aware than men of this issue both in the first and in the second measure, within the coastal region responses. Adequately identified this concept. Also, more than 20% of the total of women, within the coastal region, improved the identification of the concept. Besides, men and women have a very low level of awareness of this concept identified in the first measure (less than 20% for each gender according to the total of men and women correspondingly). However, both genders improve the identification of the concept, in the case of men, the improvement is more than 20% (of the total of men), and in the case of women, it is more than 30% (of the total of women).

Furthermore, analyzing the recognition of the term "Sustainable Development" by field of study, just considering “Engineering” and “Business” (for being the specialties with greater
presence), it is observed that students and/or professionals in engineering are more aware than students and/or professionals in business of this issue both in the first and in the second measure; since more than 85% of all engineers respondents, within the coastal region, adequately identified this concept. Also, 40% of the total of business professionals, within the coastal region, improved the identification of the concept.

Figure 4. 15 Measurement of the recognition of “Sustainable Development” by field of study - Coastal Region
(38 responses)

Analyzing the recognition of the term “Corporate Sustainability” by field of study, just considering “Engineering” and “Business” (for being the specialties with greater presence), it is observed that, within the coastal region, students and/or professionals in engineering and students and/or professionals in business have a very low level of awareness of this concept identified in the first measure (less than 25% for each gender according to the total of men and women correspondingly). However, both genders improved the identification of the concept, in the case of people with engineering studies, the improvement is just 14% (of the total of responses with engineering field), and in the case of people with business studies it is a pretty high improvement of 60% (of the total of responses with business field).
Additionally, the majority of the Peruvian university community, with a focus on respondents from the coastal region of Peru (63% of the total), believes that SMEs (in Peru) consider "very important" to be sustainable. However, there is a percentage of this population (5% of the total) that believes that there are SMEs (in Peru) that consider "not important at all" to be sustainable (see figure 4.17).

In this step, Hypothesis 2 is validated. (H2: Be a sustainable business is relevant for SMEs (in Peru) according to the members of the Peruvian university community).

The majority of the Peruvian university community, with a focus on respondents from the coastal region of Peru (71% of the total), believes that corporate sustainability is "very important" for the sustainable development. In this population, none considers that corporate sustainability is "not important at all" for the sustainable development (see figure 4.18).
In this step, Hypothesis 3 is validated (H3: Corporate sustainability is relevant for the
development according to the members of the Peruvian university community).

**Figure 4.18 Importance of Corporate Sustainability for the Sustainable Development -
Coastal Region**

(38 responses)

4.4 - Sustainable Objectives and Social Responsibility Policies

- This section evaluates the awareness and perception (of the Peruvian university
community) of the following topics: sustainable objectives and social responsibility policies.

In this stage, the questionnaire included valid answers options (with close relation to the
topics) and not valid ones (without relation to the themes), this with the purpose of measuring
the awareness of the respondents about sustainability objectives and social responsibility
policies.

The respondents, segmented by the coastal region of Peru, identified valid responses
showing awareness of the barriers that managers face in the development of Social
Responsibility Policies in SMEs (in Peru). In addition, they pointed out that lack of awareness
about SR and lack of real interest in SR policies are the most important barriers to be taken
into account (see figure 4.19).
According to the opinions of the respondents (38 responses), receiving government benefits (such as tax reductions and preference in public procurement policies) could have a positive impact as a measure of implementation of social responsibility policies in SMEs (in Peru). In addition to this, a high percentage of responses, also points out, that being a government obligation for SMEs could have a positive impact (see figure 4.20).

In this step, Hypothesis 4 is validated (H4: Government benefits for the implementation of sustainable policies in would have a positive impact in SMEs according to the members of the Peruvian university community).

Figure 4. 20 Impact of the Implementacion of Social Responsibility Policies - Coastal Region (38 responses)
In addition, as a qualitative response to the impact on the implementation of Social Responsibility Policies in SMEs (in Peru), the following comments were obtained:

- “The exoneration or reduction of taxes to all companies that promote SMEs in Peru would have a positive impact”
- “The development of social responsibility policies will help to have a sustainable country”
- “Measures should be promoted at the State level, so that it is seen as a necessity to do so and thus prevent some from fulfilling it and others not”
- “If it is a matter of forcing SMEs through legislation, there will be many particular cases in which companies will be harmed, above all economically”
- “The costs incurred in political issues for the study of the development of sustainability and RS should be a main task of SMEs and not generate losses or increase costs”

4.5 - Relationship between general concepts

- This section evaluates the awareness (of the Peruvian university community) of relevant concepts of sustainability issues.

In this stage, the questionnaire included valid answers options (with close relation to the topics) and not valid ones (without relation to the themes), this with the purpose of measuring the awareness of the respondents about general concepts and their relationships.

The respondents, segmented by the coastal region of Peru, identified valid responses showing awareness of relationship between general concepts. They identified as main concepts: development and corporate sustainability, development and ethics and transparency and sustainability, considering in all of them a “related” relationship, not independent but not totally related (see figure 4.21).

Figure 4. 21 Relationship between general concepts - Coastal Region  
(38 responses)
In this step, Hypothesis 5 is validated (H5: Transparency is related to sustainability according to the members of the Peruvian university community).

4.6 - Results of secondary information

Opinions were collected from business leaders in Latin America and Peru through conferences and public reports. Below are the most important results:

- In a Latin American context, a high percentage of leaders of large and medium-sized companies are not sufficiently aware of sustainability issues. They have familiarity in the subject but not a deep knowledge of sustainability issues. With this, there is evidence of the urgent need for training in sustainability issues.

- Corruption is one of the most "typical" barriers to business in Latin America. Transparency in business is an urgent need.

- Latin American businesses need a strategic plan with a view to the long term to increase the value of their companies.

- In Latin America, sustainable policies must go beyond the company itself. There is an opportunity to be shared with other businesses.

- Peru follows the Latin American trend with a high percentage of directors (of large and medium-sized companies) who are not sufficiently aware of sustainability issues.

- In Peru, there is a high percentage of companies (large and medium) that do not have sustainability reports.

- Peru has a vision to achieve sustainable business. However, one of the first phrases to work on the basis of deep knowledge of sustainability issues, especially for leaders who can guide their companies to achieve sustainable objectives.

4.7 - Chapter 4 - Conclusions

Both the results of secondary information and primary information show important factors to be taken into account for a Latin American and Peruvian reality. Factors such as the lack of awareness of business leaders on issues of sustainability, the lack of long-term strategies for companies; as well as the current importance of corporate sustainability in the SMEs and the governmental measures that are necessary for the adoption of sustainable policies were found in this exploratory research.
CHAPTER 5. PROPOSING A BUSINESS MODEL TOOL TOWARDS SUSTAINABILITY

5.1 - Chapter 5 - Introduction

This chapter includes the proposal of a Business Model Tool based on the Business Model Canvas. In detail, this proposal shows a tool oriented towards sustainability for a Latin American context.

5.2 - Proposal of a Business Model Tool

According to the literature review, sustainability is an objective, which is composed of three main pillars: economic, ecological and social development. In addition, corporate sustainability plays an important role in sustainable development, as it causes direct impacts on society. That is why, in order to achieve sustainability, it is important to take into account the following considerations:

1) The concept of sustainability must be understood correctly from the beginning of a process of change

2) Policies of the public and private sectors are fundamental as axes of action towards corporate sustainability

3) People involved in the decision-making process of new policies and actions for change are subject to different ethical (of each person) and moral levels (of certain groups of society); as well as subject to laws (mandatory rules according to each constitution)

4) The process of development and change towards corporate sustainability depends on an ecosystem of different actors, such as: civil society, public authorities, employees, customers and stakeholders.
5.2.1 - SMEs in Latin America and Peru: Opportunity

While it is true that each country in Latin America has different business divisions, government policies and economic growth, there are trends that they share according to their current reality.

With reference to the information obtained and detailed above, it can be argued that SMEs in Latin America are the largest growing business sector directly related to employability. In this context, the increase in the creation of companies is observed but with a low level of competition in relation to SMEs worldwide. This lack of competitiveness arises from the lack of business strategy and because of a business ecosystem still complex to deal with the problems of each country.

Given this problem, it is clear the need to generate tools that seek to improve the current corporate strategy of SMEs in Latin America without neglecting the purpose of development as a society.

The researcher identified the following main problematic factors for conducting business, currently in Peru:

- The development of the country continues being a "subject of few people". There are not yet many actions that contribute to the development
  - Problematic between the interrelation of actions between the public sector and the private sector
    - Within the public sector, the government has problems of transparency
    - Within the public sector, the government doesn't improve the taxes law in the country
    - Within the public sector, lack of sustainable public policies that benefit SMEs
    - Within the private sector, there is still not much work together between large companies and SMEs
    - Financing rates of financial institutions remain very high for SMEs (in Peru)
    - There is a high number of directories and managers with transparency problems
    - Although a group of companies has sustainability reports, there is still a high percentage of leaders and employees who "are not aware of the concept of sustainability and issues related to it"

The opinion of business experts in Latin America and experts in Peru; as well as the perspective of the Peruvian university community in relation to sustainability in SMEs (in Peru) were detailed in the exploratory analysis (primary and secondary information). These inputs reveal and support many of the researcher's opinions.

Of the set of factors identified and compared in this research, four of them are highlighted, which are the following:

- Lack of awareness about sustainable issues
- Lack of transparency
- Lack of sustainable policies
Lack of actions for the development

In addition, according to the author’s opinions and the results of the research, the following opportunity was identified to carry out business in Peru with a view to sustainability and development:

- Propose a business tool for action plans in micro, small and medium enterprises (SMEs) to guide the leaders of companies to adopt sustainable measures from the beginning of the creation of a company or during the implementation of improvements in the business structure. This tool aims to be part of the business strategy, and to transform business leaders into agents of change for development purposes.

5.2.2 - Sustainable Business Model Canvas For A Latin American Context

As mentioned before, the nine blocks of the Business Model Canvas consider the following main areas of a business: offer, customer, infrastructure, and financial viability. These areas are related according to the business focus. Also, the value proposition (as business offer) can be oriented not only to the customer but also to the business infrastructure. That is, the analysis of the Business Model Canvas can be oriented to three blocks (see figure 5.1).

Figure 5. 1 3 Blocks of Sustainable Business Model Canvas  
Source: Adapted from Osterwalder, Pigneur (2010)

To guide this tool to sustainability, it is considered convenient to ask the following analysis questions according to each pillar of sustainability (economic, environmental and social pillar), depending on the need identified in each block:
VALUE PROPOSITION

- What core value do you deliver to the customer?
- What social value do you deliver? *(Social Approach)*
- What environmental value do you deliver? *(Environmental Approach)*
- Which customer needs are you satisfying?
- Which consumer needs are you satisfying? *(Social Approach)*

BLOCK 1

**Customer Segments:**
- For whom are you creating value?
- Who are your most important customers?
- Who are your most important consumers? *(Social Approach)*

**Customer Relationship:**
- What relationship that the target customer expects you to establish?
- How can you integrate that into your business in terms of structure and cost?

**Distribution Channels:**
- Through which channels that your customers want to be reached?
- How can they be integrated into your and your customers’ routines?
- Which ones are most cost-efficient?
**Key Activities**
- What key activities does your value proposition require?
- What activities are most important for your business?
- What key activities does your social value require? (Consider social activities as internal governance, social responsibility policies and others) *(Social Approach)*
- What key activities does your environmental value require? *(Environmental Approach)*

**Key Partners**
- Who are your key partners / suppliers?
- What are the motivations for the partnerships?
- What are your suppliers and / or local communities with whom you can make a social relationship? *(Social Approach)*

**Key Resources**
- What key resources does your value proposition require?
- What key materials does your environmental value require? *(Environmental Approach)*
- What resources are most important for your business?
- What employee-oriented programs can be implemented in your business? *(Social Approach)*
Cost Structure
- What are the most important costs in your business?
- Which key resources / activities are most expensive?
- What are the most important social issues in your business?
  (Consider social indicators, e.g. working hours, health and safety, community engagement, cultural heritage and others) (Social Approach)
- What are the most important environmental issues in your business?
  (Consider environmental indicators, e.g. Life Cycle Assessment metrics: energy, water use, emissions, bio-physical metrics: CO2 emissions, ecosystem impact, water and others) (Environmental Approach)

Revenue Stream
- For what value are your customers willing to pay?
- How do they recently pay? How would your customers prefer to pay?
- How much does every revenue stream contribute to the overall revenues?
- What are the most important social benefits in your business?
  (Consider social value creating from actions of your business) (Social Approach)
- What are the most important environmental benefits in your business? (Consider negative environmental impact reductions and positive environmental value) (Environmental Approach)
Within the Business Model Canvas, it is observed that each identified block has, in addition to the economic approach, a social approach and/or environmental approach. This tool includes the social focus to a greater extent, since in the analyzed context (businesses in Latin America and Peru) this is the pillar that must be incorporated in a more "urgent" way and as the first proposal to change in the direction of sustainability. However, it must be taken into account that the total measures of action to be implemented in a business must be proportional, or at least try to be, to the three approaches (social, environmental and economic) in order to achieve sustainable development.

This tool is aimed at leaders of micro, small and medium enterprises (SMEs) in Peru; considering its extension to Latin America (by similarity of trends of factors analyzed above).

In addition, it is important to point out that prior to the implementation of this tool, as a first step, the process of "culturalization" should be adopted to the leaders who will make use of it and to the entire work team involved. That is, the explanation of basic concepts related to sustainability is required in order to increase awareness for understand and manage the tool in a way that can generate value. In this process, the trainings will be of vital importance.

For the success of this tool and to achieve sustainability, it is important to take into account, also, the joint work of external actors (previously identified), such as: government support through tax reduction and/or other types of benefits for SMEs that adopt measures of social responsibility, and the support of large companies towards SMEs through training or developing with them "more just" and "mutual benefit" relationships. Moreover, the decision-making regarding the development-oriented change of government and business leaders is fundamental, since they are the main agents of change for development.

Finally, the tool can always be improved and flexible according to the needs of each type of business; however, it is recommended to follow the line of adding value with a social and environmental approach without neglecting the economic approach.

5.3 - Chapter 5 - Conclusions

The entries have been proposed with a social and environmental approach per each block inside business model thinking. The proposed tool is aimed at leaders of SMEs in Peru and Latin America. It is considered a clear and friendly guide for anyone wishing to adopt measures aimed at sustainability in their business for the aforementioned context. In addition, it can be used as a first approximation to the change of orientation of a company that wishes to adopt more sustainable measures, considering its flexibility according to the business line analyzed.
CHAPTER 6. CONCLUSIONS

6.1 - Conclusions

The main objective of this research was achieved, thanks to the fact that the research questions were answered:

- How can existing business models be optimized towards sustainability in a Latin American context? Proposing business model tools for this context. This research proposes a Sustainable Business Model Tool based in BMC directed to SMEs in Peru and Latin America.

- What factors should be considered in the Latin American businesses? According to the results of this study and the opinion of the author there is a set of factors to be considered; however, four of them were considered as the most important, which are: lack of awareness about sustainable issues, lack of transparency, lack of sustainable policies and lack of actions for the development.

The Sustainable Business Model Tool arose from the adaptation of the BMC considering, principally, four factors (previously mentioned) for the development of businesses in Peru and Latin America. This tool includes questions oriented to the social and environmental development of SMEs.

The social approach of the proposed tool is focused on the social value of the company, the identification of key consumers, the needs of the consumer, the social activities of the company (based on social value), the creation of worker-oriented programs and policies, the relationships with suppliers and/or local communities, social issues (defined by social indicators of each company) and social benefits (creating social value).

The environmental approach of the proposed tool is focused on the environmental value of the company, environmental activities (based on environmental value), the identification of key materials, environmental issues (defined by environmental indicators of each company) and environmental benefits (creating environmental value or reducing negative environmental impacts).
6.2 - General conclusions

Sustainability in business is an issue that has been developing many years ago. However, there are still shortcomings in the understanding and consciousness of this topic and development and application of tools towards this goal. In the context of business in Latin America, factors that can be barriers to improvement or drivers to be managed are identified from the internal point of view of an organization (SME) and its main actor, the management leader, up to the analysis of the participation of external factors such as actors of the public and private sector. Within this context, a more specific approach was given to business in Peru, providing a practical management tool for SME leaders based on the Business Model Canvas. This tool seeks to contribute to the development and improvement of businesses (in Peru and Latin America) towards sustainability.

6.3 - Limitations

The questionnaire was not carried out in peruvian SMEs because the researcher had difficulties (little time to focus on that type of audience, impossibility of personal approach to leaders in SMEs and lack of contacts in SMEs for being outside Peru for about two years) to be involved in that community. However, the information entries were taken from Peruvian academic community that has individuals who have or will have any contact with business environment (like SMEs) in Peru; since universities are oriented to prepare future professionals and business leaders.

For exploratory research, an online survey (author's authorship) was used as a tool for primary information, which was limited to the waiting time for entries and to have, at least, a minimum sample required for the analysis; in addition, a greater input of qualitative responses was expected; which led the researcher to rely on quantitative responses in their majority.

6.4 - Future work

This document shows an approach to business sustainability in Latin America and meets the objective of proposing a tool with sustainable objectives for a Latin American context. Within this, the exploratory analysis carried out is highlighted, which evidences a series of factors to take into account to achieve sustainable development in Latin America and Peru. With this, this document can serve as a basis for future research that requires focusing on some of these factors.

In addition, the validation of the tool in SMEs environment is considered as a future work.
BIBLIOGRAPHY


Bringing sustainability to Business Model thinking in Latin America


ANNEXES

- ANNEX A. Questionnaire
- ANNEX B. Online Questionnaire (Language: Spanish)
ANNEX A. Questionnaire

Questionnaire

Introduction
The questionnaire is designed to evaluate the perspective of the academic community (undergraduate students, graduates, professors and other academic members) on sustainability in SMEs in Peru.

Instructions
You are kindly asked to complete the questionnaire following the instructions provided for each question. Responding in a candid way is important. There are no right or wrong answers. Your answers will be kept strictly confidential.

Thanks a lot for your participation!

Isabel Bernal
Peruvian Master Student - University of Porto (Portugal)
Contact: up201602358@fe.up.pt
*Your collaboration is precious to achieving consistent results for the author’s master dissertation.
## General Information

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<td>Ucayali</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Geographical region of birth</td>
<td>Coast</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mountain Range</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Amazon Forest - Forest Brow</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Amazon Forest - High Forest</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Amazon Forest - Low Forest</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 5. Academic member type
- Undergraduate student
- Graduate
- Professor
- Researcher
- Other

### 6. University
- Pontificia Universidad Católica del Perú
- Universidad ESAN
- Universidad de Lima
- Universidad Nacional Agraria La Molina
- Universidad Nacional de Ingeniería Lima
- Universidad Nacional Mayor de San Marcos
- Universidad del Pacífico Perú
- Universidad Peruana Cayetano Heredia
- Other

### 7. Field of Study
- Business
- Architecture
- Art / Design
- Accounting Sciences
- Human Sciences
- Natural Sciences
- Health Sciences
- Social Science
- Communication
- Law
- Education
- Engineering
- Psychology
- Other
II. Sustainable Development and Corporate Sustainability

8. How familiar is for you the following terms?

<table>
<thead>
<tr>
<th>Sustainable Development</th>
<th>Highly acquainted</th>
<th>Acquainted</th>
<th>Not very acquainted</th>
<th>Unacquainted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Sustainability</td>
<td>Highly acquainted</td>
<td>Acquainted</td>
<td>Not very acquainted</td>
<td>Unacquainted</td>
</tr>
</tbody>
</table>

9. In which context(s) have you learn about the following topics?

<table>
<thead>
<tr>
<th>Sustainable Development</th>
<th>School/High School</th>
<th>University</th>
<th>Work</th>
<th>Day-to-day situations</th>
<th>I have never learned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate Sustainability</td>
<td>School/High School</td>
<td>University</td>
<td>Work</td>
<td>Day-to-day situations</td>
<td>I have never learned</td>
</tr>
</tbody>
</table>

10. Please, select the statements that are related with the definition of “sustainable development”.

a) The definition of sustainable development is based in two systems as basic to any process of development: the biological or ecological resource system and the economic system.

b) Sustainable development is defined as the development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

c) Sustainable development implies a long-term approach and has nothing to do with a short-term approach.

d) The environmental integrity, economic prosperity and social equity are principles that ground sustainable development.

11. Please, select the statements that are related with the definition of “corporate sustainability”.

a) Corporate sustainability can be adopted as a company strategy.

b) The corporate sustainability approach aims to reduce the negative environmental and social impacts of corporate activities while improving (or at least not reducing) the economic performance of the corporation.

c) The Triple Bottom Line is a form of corporate sustainability where the economic, ecological and social developments are interconnected but not necessary in balance.

d) Corporate sustainability is defined as the delivery of long-term value of a company in financial, social, environmental and ethical terms.
Considering that “SMEs represent more than 90% of companies in Latin America, and they generate more than half of the employment, and one fourth of GDP”(Development Bank of Latin America, 2016).

12. In your opinion, how important is the sustainability in small and medium enterprises (SMEs) (in Peru) for the country development?

<table>
<thead>
<tr>
<th>Very important</th>
<th>Important</th>
<th>Not important</th>
<th>Not important at all</th>
</tr>
</thead>
</table>

13. In your opinion, how important is for small and medium enterprises (SMEs) (in Peru) be sustainable?

<table>
<thead>
<tr>
<th>Very important</th>
<th>Important</th>
<th>Not important</th>
<th>Not important at all</th>
</tr>
</thead>
</table>

Please, read the following text and then continue with the answers:

Sustainable Development meets the needs of the present (short term approach) without compromising the ability of future generations to meet their own needs (long term approach) (WCED, 1987).

Corporate Sustainability (CS) is closely linked to Sustainable Development, because of the economic, social and environmental goals common to all people (ISO 26000). CS is defined as a company’s delivery of long-term value in financial, social, environmental and ethical terms (UN, 2010). Also, the Triple Bottom Line (TBL) is a form of CS that keep this three notions in balance: the traditional financial bottom line, environmental quality and social justice (Elkington, 1999).

14. Please, select the statement(s) that are related with the definition of “sustainable development”.

a) The definition of sustainable development is based in two systems as basic to any process of development: the biological or ecological resource system and the economic system.

b) Sustainable development is defined as the development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

c) Sustainable development involves short term and long term approaches.

d) The environmental integrity, economic prosperity and social equity are principles that ground sustainable development.
15. Please, select the statement(s) that are related with the definition of "corporate sustainability".

a) Corporate Sustainability adopts the traditional financial bottom line as a unique base.

b) The corporate sustainability approach aims to reduce the negative environmental and social impacts of corporate activities while improving (or at least not reducing) the economic performance of the corporation.

c) The Triple Bottom Line is a form of corporate sustainability where the economic, ecological and social developments are interconnected but not necessarily in balance.

d) Corporate sustainability is defined as a company’s delivery of value in financial but not necessarily ethical terms.

16. In your opinion, how important is “corporate sustainability” for the “sustainable development” (in Peru) ?

<table>
<thead>
<tr>
<th>Very important</th>
<th>Important</th>
<th>Not important</th>
<th>Not important at all</th>
</tr>
</thead>
</table>

17. In your opinion, how important is the adoption of “corporate sustainability” in small and medium enterprises (SMEs) (in Peru)?

<table>
<thead>
<tr>
<th>Very important</th>
<th>Important</th>
<th>Not important</th>
<th>Not important at all</th>
</tr>
</thead>
</table>
III. Sustainable Objectives and Social Responsibility Policies

18. In your opinion, what are the barriers that managers face in the developing of Social Responsibility Policies in SMEs? Select statement(s).
   a) Cost associated with SR policies
   b) Lack of real interest in SR policies
   c) Lack of awareness about SR
   d) Absence of commitment with social issues
   e) Difficult of find technician skilled on SR
   f) Negative evaluation of markets on SR
   g) Competitors don't care about the SR issues
   h) SR is a matter for the Church or charity organizations

19. In your opinion, what are the barriers that managers face in order to achieve "sustainable objectives" in SMEs (in Peru)? Select statement(s).
   a) Cost associated
   b) Lack of awareness of sustainable issues
   c) Absence of commitment to global issues
   d) Difficult of find technician skilled on sustainability
   e) Negative evaluation of markets on “sustainable objectives”
   f) Competitors don't care about the sustainable issues
   g) This is a subject just for "the ecologist"

20. In your opinion, how could be the impacts in the implementation of social responsibility policies of the following measures?

<table>
<thead>
<tr>
<th>Measures</th>
<th>Negative impact</th>
<th>No impact</th>
<th>Positive impact</th>
<th>Strong positive impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxes benefits for companies with published policies and reports on progress on social responsibility</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Governmental obligation for SMEs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preference or benefit in public procurement policies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other :</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
IV. Relationship between general concepts

21. In your opinion, how deeply are related the following concept?

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Totally independent</td>
<td>Related</td>
<td>Fully related</td>
<td>Totally independent</td>
<td>Related</td>
<td>Fully related</td>
<td>Totally independent</td>
<td>Related</td>
</tr>
</tbody>
</table>

Thank you for your cooperation. The questionnaire is over.
ANNEX B. Online Questionnaire
(Language: Spanish)

Cuestionario - Perspectiva académica de la sostenibilidad en pequeñas y medianas empresas (PYMEs)

Introducción
El presente cuestionario está diseñado para evaluar la perspectiva de la comunidad universitaria peruana (estudiantes de pregrado, maestrías y doctorados) sobre la sostenibilidad en PYMEs en el Perú.

Instrucciones
Se le pide amablemente que complete el cuestionario siguiendo las instrucciones provistas para cada pregunta. Responder de manera sincera es importante. No hay respuestas correctas o incorrectas. Sus respuestas serán estrictamente confidenciales.

Muchas gracias por su participación!

Diseñado por: Isabel Bernal
Estudiante universitaria - Universidad de Oporto (Portugal)
Contacto: uu201602538@fe.up.pt
*Su colaboración es valiosa para lograr resultados consistentes en la tesis de maestría del autor.

*Obligatorio

Parte I: Datos Generales

1. Género *
   - Hombre
   - Mujer
   - Otro

2. Edad *
   - Menor de 18 años
   - 18 - 20 años
   - 21 - 25 años
8. ¿Cuán familiarizado se encuentra con los siguientes términos? *

<table>
<thead>
<tr>
<th></th>
<th>Altamente familiarizado</th>
<th>Familiarizado</th>
<th>Muy poco familiarizado</th>
<th>No familiarizado</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desarrollo Sostenible</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Sostenibilidad Corporativa</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

9. ¿En qué contexto(s) ha aprendido sobre los siguientes temas? *

<table>
<thead>
<tr>
<th></th>
<th>Colegio (Primaria/Secundaria)</th>
<th>Universidad</th>
<th>Trabajo</th>
<th>En el día a día</th>
<th>Nunca lo aprendí</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desarrollo Sostenible</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Sostenibilidad Corporativa</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

10. Seleccione los conceptos relacionados con la definición de "desarrollo sostenible". *

- a. La definición de desarrollo sostenible se basa en dos sistemas básicos para cualquier proceso de desarrollo: el sistema de recursos biológicos o ecológicos y el sistema económico.

- b. El desarrollo sostenible se define como el desarrollo que satisfice las necesidades del presente sin comprometer la capacidad de las generaciones futuras para satisfacer sus propias necesidades.

- c. El desarrollo sostenible implica un enfoque a largo plazo y no tiene nada que ver con un enfoque a corto plazo.

- d. La integridad ambiental, la prosperidad económica y la equidad social son principios que sustentan el desarrollo sostenible.
11. Seleccione los conceptos relacionados con la definición de "sostenibilidad corporativa".

☐ a. La sostenibilidad corporativa puede ser adoptada como una estrategia de la compañía.

☐ b. El enfoque de sostenibilidad corporativa tiene como objetivo reducir los impactos ambientales y sociales negativos de las actividades corporativas mientras se mejora (o al menos no se reduce) el desempeño económico de la corporación.

☐ c. La “triple cuenta de resultados” es una forma de{sostenibilidad corporativa donde los desarrollos económicos, ecológicos y sociales están interconectados, pero no necesariamente en equilibrio.

☐ d. La sostenibilidad corporativa se define como la entrega de valor a largo plazo de una empresa en términos financieros, sociales, ambientales y éticos.

Considerando que "Las PYMEs representan más del 90% del total de empresas en América Latina, generan más de la mitad de los empleos y una cuarta parte del PIB" (Banco de Desarrollo de América Latina, 2010).

12. En su opinión, ¿qué tan importante es la sostenibilidad en las pequeñas y medianas empresas (PYMEs) (en el Perú) para el desarrollo del país?

☐ Muy importante

☐ Importante

☐ No muy importante

☐ No es importante en absoluto

13. En su opinión, ¿qué tan importante es para las pequeñas y medianas empresas (PYMEs) (en el Perú) ser sostenibles?

☐ Muy importante

☐ Importante

☐ No muy importante

☐ No es importante en absoluto
Por favor, lea el siguiente texto y luego continúe con las respuestas:

El Desarrollo Sostenible satisface las necesidades del presente (enfoque a corto plazo) sin comprometer la capacidad de las generaciones futuras para satisfacer sus propias necesidades (enfoque a largo plazo) (UDE, 1997).

La Sostenibilidad Corporativa (SC) se define como la entrega de valor a largo plazo en términos financieros, sociales, ambientales y éticos de una empresa (CNU, 2010). Una de las bases de la Sostenibilidad Corporativa (SC) es la Responsabilidad Social (R3), la cual está estrechamente relacionada con el Desarrollo Sostenible debido a los objetivos económicos, sociales y ambientales comunes a todas las personas (ISO 20000). Además, la teoría de la "triple cuenta de resultados" describe a la Sostenibilidad Corporativa (SC) bajo tres nociones en equilibrio: el resultado financiero tradicional, la calidad ambiental y la justicia social (Elkington, 1999).

14. Seleccione los conceptos relacionados con la definición de ‘desarrollo sostenible’. *

- a. La definición de desarrollo sostenible se basa en dos sistemas básicos para cualquier proceso de desarrollo: el sistema de recursos biológicos o ecológicos y el sistema económico.

- b. El desarrollo sostenible se define como el desarrollo que satisface las necesidades del presente sin comprometer la capacidad de las generaciones futuras para satisfacer sus propias necesidades.

- c. El desarrollo sostenible implica enfoques a corto y largo plazo.

- d. La integridad ambiental, la prosperidad económica y la equidad social son principios que sustentan el desarrollo sostenible.

15. Seleccione los conceptos relacionados con la definición de ‘sostenibilidad corporativa’. *

- a. La sostenibilidad corporativa adopta el análisis financiero tradicional como una base única.

- b. El enfoque de sostenibilidad corporativa tiene como objetivo reducir los impactos ambientales y sociales negativos de las actividades corporativas mientras se mejora (o al menos no se reduce) el desempeño económico de la corporación.
c. La "triple cuenta de resultados" es una forma de sostenibilidad corporativa donde los desarrollos económicos, ecológicos y sociales están interconectados, pero no necesariamente en equilibrio.

d. La sostenibilidad corporativa se define como la entrega de valor de una empresa en términos financieros pero no necesariamente éticos.

16. En su opinión, ¿Cuán importante es la "sostenibilidad corporativa" para el "desarrollo sostenible" (en el Perú)?

- Muy importante
- Importante
- No muy importante
- No es importante en absoluto

17. En su opinión, ¿Cuán importante es la adopción de la "sostenibilidad corporativa" en las pequeñas y medianas empresas (PYMEs) (en el Perú)?

- Muy importante
- Importante
- No muy importante
- No es importante en absoluto
18. ¿Cuáles considera usted que son las barreras que enfrentan los gerentes para el desarrollo de Políticas de Responsabilidad Social en las PYMEs (en el Perú)? Seleccione los conceptos. 

- a. Costo asociado a políticas de RS
- b. Falta de interés real en políticas de RS
- c. Falta de conciencia sobre RS
- d. Ausencia de compromiso con las problemáticas sociales
- e. Dificultad de encontrar a un experto en RS
- f. El mercado empresarial evalúa de forma negativa la RS
- g. Las empresas competidoras en el mercado no se preocupan por temas relacionados a RS
- h. RS es un tema que solo le incumbe a la Iglesia o a las organizaciones de caridad

19. ¿Cuáles considera usted que son las barreras que enfrentan los gerentes para alcanzar “objetivos sostenibles” en las PYMEs (en el Perú)? Seleccione los conceptos. 

- a. Costos asociados
- b. Falta de conciencia sobre temas sostenibles
- c. Ausencia de compromiso con las problemáticas globales
- d. Dificultad de encontrar experto en sostenibilidad
Bringing sustainability to Business Model thinking in Latin America

Isabel Bernal

MIETE | FEUP | 2016/18

20. En su opinión, ¿Cuál sería el impacto en la implementación de Políticas de Responsabilidad Social de las siguientes medidas? Responda en escala de impacto.

<table>
<thead>
<tr>
<th>Impacto negativo</th>
<th>Ningún impacto</th>
<th>Impacto positivo</th>
<th>Alto impacto positivo</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Beneficios fiscales para las empresas que cuentan con políticas publicadas e informes sobre el progreso sobre la responsabilidad social

b. Obligación gubernamental para la PYMEs

c. Preferencia y/o beneficios en las políticas de contratación pública

A continuación, puede escribir, si lo desea, una respuesta de opinión personal a la pregunta 20. :

Tu respuesta________________________

ATRÁS  SIGUIENTE  Página 4 de 5
21. En su opinión, qué tan profundamente se encuentran relacionados los siguientes conceptos:

<table>
<thead>
<tr>
<th>Conceptos</th>
<th>Totalmente independientes</th>
<th>Relacionados</th>
<th>Totalmente relacionadas</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Ética y Responsabilidad Social</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b. Responsabilidad Social y Sostenibilidad</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c. Transparencia y Sostenibilidad</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d. Ética y Sostenibilidad</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>e. Desarrollo y Ética</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>f. Corrupción y Sostenibilidad</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>g. Desarrollo y Sostenibilidad Corporativa</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>h. Gobierno y Sostenibilidad Corporativa</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Gracias por su colaboración. El cuestionario ha terminado.