

## Chapter 5

### Product Innovation as Territory Sustainability Added Value: The Case Study of Douro Skincare

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**Abstract** Within a smart specialization context, regions and businesses have to develop their innovation and product delivery with added value to supply market needs in a different perspective. As the territory sustainability within the Portuguese smart specialization strategy (RIS3) is defined, we propose to exemplify through a case study a good practice in answering these new challenges. The case study explores the growth and regional involvement of Douro Skincare, a company created by women that operates in the field of selective biological cosmetics through the creation, development, and production of cosmetic lines that are based on emblematic raw materials of the Douro region, one of the oldest wine-growing areas, located in the north of our country, Portugal. It uses Douro grapes and PORT WINE DNA <sup>TM</sup> (Douro Nuclear Aroma), created from the first Port wine from entirely organic production, to develop cosmetic lines produced with endogenous products. These types of territorial intensive products (TIPs) are associated directly with the region and are intensively endogenous, an answer to the challenges created within RIS3.

**Keywords** Territory sustainability • Smart specialization • Product innovation • Regional brands and marketing • TIPs

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## 5.1 Introduction

The national development strategies, promoted by the European Union policy for economic growth and development, are currently defining the actions of the different Portuguese stakeholders. One of the main objectives of this policy is to guide the activity with economic and social impact, namely, business activity. With this in mind, it's very interesting to analyze how a Portuguese business company may impact its activity, prosecuting innovation and other actual and important goals as tourism and sustainability, through territorial intensive products. These objectives are in line with the mainstream concerns of economic development and growth as well as of a modern sustainable business model.

In our article, we will address these questions by giving a short but pertinent literature review on the main scientific subjects we have to reach to fully answer the questions we developed to make our research. We will follow the case study methodology that permits us a complete insight of the business activity as it allows us to not only collect the data but also to understand why the events occurred as they did. So, our article will present one part of the literature review and another part for the methodology description followed by the case study portrayal, ending with the main discussions of the results of the research.

## 5.2 Literature Review

### 5.2.1 Smart Specialization Strategy

As stated by Foray et al. (2009), the different assets and features of each region have to be aligned so the innovation policies have visible impacts on competitiveness, economic growth, and employment. This is what they called the smart specialization paradigm.

The contextual character of innovation requires that innovation policies are formulated in such a way as to maximize the external interactions and to facilitate the flow of knowledge but in line with the specifics of the patterns of regional innovation (McCann and Ortega-Argilés 2011; Camagni and Capello 2012). So, the smart specialization principle is based on the belief that innovation strategy and region competitiveness are due to the characteristics and assets within the territory.

This specialization and its concentration of resources aim to increase underlying economies of scale but carry risks of lock-in (conditions the economic structure ability of the region to change its technological trajectory in face of an external demand shock). To overcome these risks, the concept of smart specialization evolved in the direction of "specialized diversification" (McCann and Ortega-Argilés 2011; CIEC 2010), promoting I&D strategies and innovation leading to an upgrade and diversification of the productive structure around technology and market relatedness (ESPON 2012).

Therefore, smart specialization involves the matching of knowledge and human capital accumulated with regions' economic structure (Capello 2013) and an analysis of the potential competitive advantages definition that is able to respond to the international evolution demand.

The main distinction between smart specialization and traditional industrial and innovation policies is the process defined as "entrepreneurial discovery" which is the interactive process in which market forces and the private sector are discovering and producing information about new activities and the government assesses the outcomes and empowers those actors that are most capable of realizing the potential (Foray 2012; Hausmann and Rodrik 2003). This entrepreneurial process empowers entrepreneurs to combine the necessary knowledge about science, technology, and engineering with knowledge of market growth and potential in order to identify the most promising activities. In this learning process, entrepreneurial actors have to play the leading role as they pinpoint the needed adaptations to local skills, materials, environmental conditions, and market access conditions and will entail gathering localized information and the formation of social capital assets (OECD 2013). In this context, entrepreneurial actors are not only the people creating new companies but also innovators in established companies, in academia, or in the public sector.

Smart specialization in RIS3 context consists of a strategic approach to economic development mainly focused on research and innovation. This concept is based on the principle that the concentration of knowledge resources and their connection to a limited number of priority economic activities will enable the countries and regions to be, and remain to be, competitive in the global economy. The smart specialization approach suggests regions, especially those regions which are not leaders in any of the major science and technology domains, to invest in R&D and innovation on few key priorities (OECD 2013).

In Portugal, the smart specialization strategy was thought at a national level and in a regional context. Each region of the country, accordingly with the national and regional government existing (North, Centre, Lisbon and Tagus Valley; Alentejo, Algarve, Azores, and Madeira), had to think and define its own RIS3. The implementation of the intelligent specialization regional strategy was founded on distinctive characteristics and the existing potential and affirming competitive international emerging, so it is essential to assess the regional scientific critical mass, business base and the existence and potential of articulation with power users. In the Northern region, this evaluation has identified eight priority areas (Life Sciences and Health; Resources of the Sea and Economy; Human Capital and Specialized Services; Culture, Creation and Fashion; Industries of Mobility and Advanced Production Systems Environment; Symbolic Capital Technologies; Tourism Services; and Agro-environment and Food Systems) (CCDRN 2014). It is in these last two domains that the products of our case study may be integrated since not only they seem to fit in the appreciation of cultural resources and territory, taking advantage of intensive scientific and technological capacities, in particular in the fields of tourism and marketing, as defined for the symbolic capital technologies and tourism services domain, but also they fit in the agro-environment and food systems since

they articulate the agriculture potential of the region with an added value product with scientific and technological skills and enterprise with a related product development, even if this product is not food.

### 5.2.2 Product Innovation, Sustainability, and Added Value

Innovation, as defined in the *Oslo Manual* of the OECD (1997), distinguishes mainly between process, product, and organizational innovation:

- Process innovations occur when a given amount of output (goods, services) can be produced with less input.
- Product innovations require improvements to existing goods (or services) or the development of new goods. Product innovations in machinery in one firm are often process innovations in another firm.
- Organizational innovations include new forms of management, e.g., total quality management.

The general definition of innovation is neutral concerning the content of change and open in all directions. In contrast, putting emphasis on innovation toward sustainable development is motivated by concern about direction and content of progress (Remnig 2000). Thus, the additional attribute of innovations toward sustainability is that they reduce environmental burdens at least in one item and, thus, contribute to the improvement of the situation (Fig. 5.1).

Progress is often still understood simply as innovation in firms, with a strong focus on technological progress. Since many problems of sustainable use of nature and land are not primarily technological questions, this may lead to a "technology bias." Natural resources can often be characterized as open access regimes, and unsustainable use stems from inappropriate institutional arrangements (Remnig 2000).

The increasing awareness of the environmental theme by consumers had consequences in the corporate world, which began by considering the development of new products more in line with the environmental concerns of the markets (Paiva and Proença 2011). This consumer recognition of its ecological responsibility has become a concern in protecting and preserving the environment in an increasingly important aspect of the lives of consumers and their buying decisions (Paiva and Proença 2011). In this sense, the additional value that can be provided by products to meet these concerns differentiates them and adds value to the product in terms of the benefit it provides to the market.

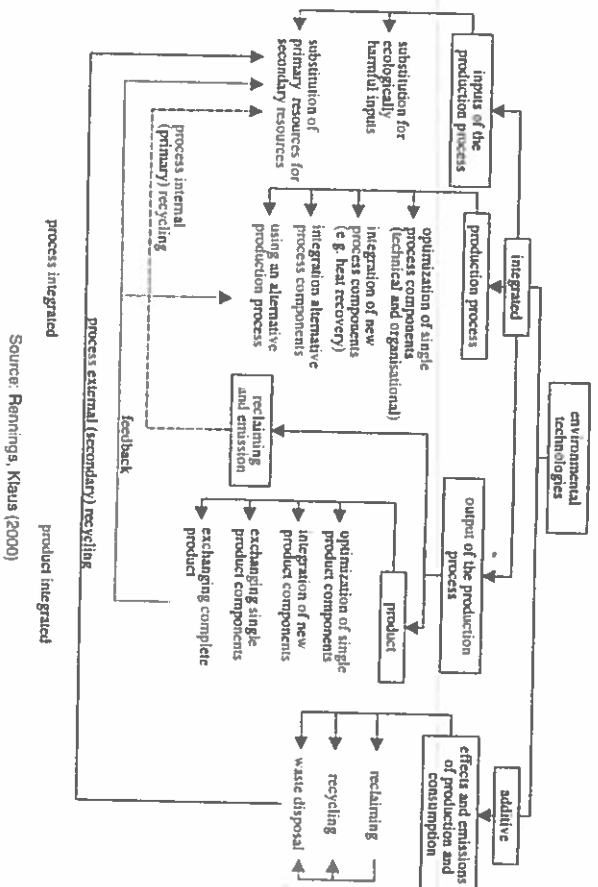


Fig. 5.1 Preventive environmental technologies (Source: Remnig 2000)

### 5.2.3 Tourism and TTPs

Today TTPs are part of the heritage in a territory and could provide a special cultural tourism experience. In the last few years, the Council of Europe for Cultural Routes has encouraged the creation and exploitation of some itineraries, as cultural routes, such as "The Routes of the Olive Tree" or the "Iber Vitis – Wine Routes in European countries." These thematic routes promote thematic tourism and the protection of cultural heritage through the utilization of typical products (Asero and Pati 2009). The tourism potential of these typical products is higher when they are identified with quality labels and brands that protect their identity and are associated with the endogenous features from the territory where they are produced.

In the case of the wine tourism it's possible to identify different stages associated with wine production, since the grape plantations and their landscape (for instance in the case of Portugal, Douro is a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage) were the first wine Demarcated Region in the world and several tourists come just to see this particular landscape; to production in the wineries, taste and gastronomy; contact with the farms where the wine is produced and all the environment and experiences provided within rural tourism (Carvalho 2014).

One and Kurihara (2013) suggest that local food production and rural tourism are joint products, and wine is a predominant TTP associated with rural tourism in numerous researches. Table 5.1 presents a state of the art of TTPs and tourism.

Table 5.1 State of the art: TIFs and tourism

Topic	Subtopic	Publication
Local food and tourism	Rural development/ rural tourism	Renko et al. (2010), Sims (2009, 2010), and Vaz et al. (2009)
	Authenticity	Sims (2009)
	Rural cultural heritage	Szlanjinka (2009) and Ohe and Ciani (2011)
	Food tourism	Hall et al. (2003)
	Wine tourism	Hall et al. (2000) and Kim et al. (2009)
	Social effects	Everett and Aitchison (2008) and Brandth and Haugen (2011)
	Rural development/ rural tourism	Renko et al. (2010), Sims (2009, 2010), and Vaz et al. (2009)
	Culinary tourism	Montanari and Staniscia (2009), and Horig and Tsai (2010)
	Organic agriculture and agro-ecotourism	Kuo et al. (2006)
	Rural tourism	Bélisle (1983), Ohe (2008), and Telfer and Wall (1996)
Economic effects of local food and tourism	Differentiation of tourism destinations	Haven-Tang and Jones (2006)
	Food consumption by tourists	Kim et al. (2009) and Skuras et al. (2006)
	Backward economic linkage	Telfer and Wall (2000)
	Hedonic pricing approach	Ohe and Ciani (2011)
	Agricultural and rural field	Azzam (1998), Chavas (2008), Chavas et al. (2010), Fernandez-Cornejo et al. (1992), Hartarska et al. (2011), and Melhim and Shumway (2011)
Economies of scope	Agricultural cooperatives	Kondo (1997) and Schroeder (1992)
	Nonagricultural field	Chavas et al. (2012) and Proir (1996)
	Theoretical development	Baumol et al. (1988), Chavas and Kim (2007), and Panzar and Willig (1981)

Source: Ohe and Kurihara (2013)

### 5.2.4 Brand and Marketing Linked with Regional Products

Brand as defined by Kotler et al. (1994) is a name or image to establish a product position as the property of a specific brand owner that gives them value. It serves also to differentiate a product which benefits consumers in a way that is more than its functional characteristics (de Chernatony and Macdonald 2003). There are diverse types of brands that do not easily equate with the classic notion of a brand owned and operated by a single enterprise (Charters et al. 2011). That is the case of

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the corporate umbrella, leader brands, and the place-related brands (country, regional, and destination brands).

These territorial brands are not created through consumer orientation but are rather a result-oriented production, as core characteristics of the product depend on the environment (Charters and Spielmann 2014). Regional or local brands are based in one area and have the advantage of association with a region of origin, especially when the region of origin is particularly important as a cue for high added-value products (Van Iersum et al. 2003).

These types of brands may include products which trade off a region or place as well as products which are situated in a single region (Van Iersum et al. 2003). Like "Douro region." However, the products are not defined by the collective memberships of the regional brand, nor they have to be produced in the region with an indissoluble environmental relationship to it (Charters et al. 2011).

As observed by Perroux et al. (2006), the region of origin may serve as a cue to link product benefits with a region, and in some situations consumers may prefer to buy those products. This factor is especially true for more highly involved consumers.

The theoretical and empirical literature on consumer-perceived brand benefits suggests classifying the benefits according to different dimensions: functional benefit (Sheth et al. 1991; de Chernatony 1993), price benefit (Zeithaml 1988; Dods et al. 1991), social benefit (Sheth et al. 1991; Ambler 1997; Bhat and Reddy 1998; Long and Schiffman 2000), and emotional benefit (Sheth et al. 1991; de Chernatony 1993; Ambler 1997; Bhat and Reddy 1998; Long and Schiffman 2000). So, the importance of that countries, regions, places, and other geographical entities, that behave like brands, are gaining acceptance and value for regional branding (Papadopoulos and Heslop 2002). There are studies that confirmed that national and other places are powerful stereotypes that influence behavior in all types of target markets.

### 5.3 Methodology

This is a descriptive study where we have used interviews to design a case study. This case study uses a qualitative methodology, based on Yin (2004), to select and analyze information collected by the interviewers and other secondary information sources. According to Yin (2004), case study research enables to investigate important topics not easily covered by other methods. Conversely, other methods cover many topics better than a case study does. Firstly, the case study method is pertinent when the research addresses either a descriptive question (what happened?) or an explanatory question (how or why did something happen?). Secondly, it is useful when we want to illuminate a particular situation, to get a close (i.e., in-depth and first-hand) understanding of it.

According to Eisenhardt (1989), building theory from case study research implies following certain steps. Table 5.2 presents the methodological guide for this research based on guidelines provided by Eisenhardt (1989).

**Table 5.2** The process of building theory from case study

Step	Activity	Reason
Getting started	Definition of research question: How territorial intensive products promote regional tourism?	Focuses efforts: TIPs and tourism, female entrepreneurship, female entrepreneurial profile, regional development
Selecting case	Specific population: Douro Skincare	Local firm that uses local products to produce innovative products (managed by women)
Entering the field	Flexible and opportunistic data collection	Allows investigators to take advantage of methods and unique case features
Analyzing data	Within-case analysis	Gains familiarity with data and preliminary theory, generation Cross-case pattern search using divergent techniques
Shaping hypotheses	Iterative tabulation of evidence for each sharpens construct definition, construct validity, and construct measurability replication, not sampling, logic across	Confirms, extends, and sharpens theory cases Search evidence for "why" behind builds internal validity relationships
Enfolding literature	Comparison with conflicting literature Comparison with similar literature	Builds internal validity, raises theoretical level, sharpens generalizability, improves construct definition, and raises theoretical level construct definitions
Reaching closure	Theoretical saturation when possible	Ends process when marginal improvement becomes small

Source: Eisenhardt (1989) adapted

We will use qualitative evaluation methods during the development of the research process.

Interviews are particularly useful for getting the story behind a participant's experiences. The interviewer can pursue in-depth information around the topic (McNamara 1999).

There are several types of interviews, namely: informal, conversational interview; general interview guide approach; standardized, open-ended interview; and closed, fixed-response interview.<sup>1</sup> The type of interview that we used was the general

<sup>1</sup> [https://en.wikipedia.org/wiki/Interview\\_\(research\)](https://en.wikipedia.org/wiki/Interview_(research)), retrieved on July 29, 2016

*Informal, conversational interview* – no predetermined questions are asked, in order to remain as open and adaptable as possible to the interviewee's nature and priorities; during the interview the interviewer "goes with the flow."

*General interview guide approach* – the guide approach is intended to ensure that the same general areas of information are collected from each interviewee; this provides more focus than the conversational approach but still allows a degree of freedom and adaptability in getting the information from the interviewee.

*Standardized, open-ended interview* – the same open-ended questions are asked to all interviewees; this approach facilitates faster interviews that can be more easily analyzed and compared.

**Table 5.3** Interviewees

Interviewee	Function	Type of interview	Interview date	Place
Mariana Andrade	Director/founder	Face to face	2016.07.05	Matosinhos
Marta Enes	Brand manager	Face to face	2016.07.05	UPTEC – Porto
Susana Cruz	Regulatory affairs	Skype	2016.07.12	DOESTE – Porto/London

interview guide approach. In annex 1 it is possible to find the guide used in the interviews, and Table 5.3 identifies the interviewees.

All interviews were audio recorded and useful for the analysis, and we have used semi-structured interviews that contain components of structured and unstructured interviews. We prepared a set of the same questions to be answered by all interviewees; however, additional questions were asked during interviews to clarify and/or further expand certain issues.

Among the main advantages of semi-structured interviews, we can include the following: (1) the possibility of access to richer information (contextualized through the words of the interviewees and their perspectives), (2) the possibility of the researcher to clarify some aspects following the interview that structured interview or questionnaire does not allow, and (3) the possibility of collecting many important data that can generate quantitative and qualitative information.

The literature review allows proposing the following hypotheses:

- H1: Product innovation allocating regional resources, within a smart specialization strategy, contributes for territory added value through entrepreneurial process.*  
*H2: The entrepreneurial project using TIPs influences positively regional tourism.*  
*H3: The use of TIPs influences positively marketing brand.*

Table 5.4 presents general and specific objectives and hypotheses tested in this case study.

## 5.4 Case Study

This section presents the case study selected "Douro Skincare."

*Closed, fixed-response interview* – where all interviewees are asked the same questions and asked to choose answers from among the same set of alternatives. This format is useful for those not practiced in interviewing.

Table 5.4 Objectives and hypotheses

General objective	Specific objectives	Hypotheses
Understand how product innovation contributes to the territory sustainability added value	Understand the entrepreneurial process related to product innovation and added value	H1: Product innovation allocating regional resources, within a smart specialization strategy, contributes for territory added value through entrepreneurial process
	Understand how the product innovation is linked to territory sustainability and added value	
	Realize the relation between TTPs and tourism	H2: The entrepreneurial project using TTPs influences positively regional tourism
	Understand how they develop the brand and their relation with region	H3: The use of TTPs influences positively marketing brand

### 5.4.1 Brief Description of Douro Skincare

Douro Skincare company is intended to act in the area of selective cosmetics, through the creation, development, and production of lines of products and brands which have high-quality standards and meet the required European regulations and market demand.

Through a business-to-business (B2B) model, it focuses on innovation and technology, enhancing the parallel strand of biological products and raw materials, environmental sustainability, and social responsibility. Increasing the promotion of the products and concepts, it became a "line of fusion cosmetics" as a result, by valuing the Northern country emblematic raw materials from the Douro region, especially those that give rise to Port wine.

### 5.4.2 Process of Business and Product Creation and RIS3

The idea came up when the founder was in front of river Douro in Oporto and noticed that all the cosmetics that were being used belonged to a foreign brand. That was when she first identified a business opportunity. The founding partner already knew some lesser known brands that sold well online and that resulted from raw materials from certain regions, that is, having a value attached, and it attracted the buyers' attention. She was not feeling motivated at work at the time due to a company merger, and that was when she felt the need to change and create a new product, and thus a new professional activity came to reality.

As she liked the Douro region a lot, she thought that a range of cosmetic products could be developed from raw materials of this iconic territory of northern Portugal.

Given the characteristics of the region and its products, mainly Port Wine, she came up with the idea of using vinotherapy but innovating the concept.

Regarding the technical part of the idea, the first step was to contact the manufacturers to see what were the raw materials that they would have an interest in using, which resulted in Port wine, including the seeds of grapes.

The allocation of human resources came primarily because they all knew each other and had similar ideas besides the same academic background and pharmaceutical studies, being the gender just a coincidence and not an option. One of the members is currently working on the technical/operational part of the business, whereas another works on the regulatory part, and the founding partner manages the business and idealizes the cosmetic lines and product development. They pointed out that part of the investigation was the result of a partnership with the University of Porto through its Faculty of Engineering. A team of professors had investigated the process of extracting alcohol from beer keeping the aromas, a process that was then applied in the beer industry. And that was when they thought about applying a similar process to Port wine, extracting its aroma.

Since that moment, they have come across various barriers along their path. The first one was financial as usual. The fact of having to arrange to finance, was very challenging, but they managed to overcome this phase after having applied to the National Strategic Reference Framework, QREN (Quadro de Referência Estratégica Nacional) funds, and to a microcredit (which helped in the production part because they could not get the product done on time and didn't have inventory nor samples) and an SME investment.

Since in Portugal the technology involved in cosmetics production was not very advanced yet, it was difficult to find the appropriate partners to produce the chemical formulas Douro Skincare had created. It was only at the third attempt and after an international experience in the UK that they managed to find a producer in Portugal, and it was then possible to stabilize the partner. Another obstacle that arose from the company's sustainable packaging requirements was the need to buy bottles with specific characteristics, airless glass bottles; therefore, to buy only 500 bottles would be very expensive, and they needed to overcome this and they did. After the first failed experiment that resulted from their own experience, because they analyzed not only the budget they had but ultimately the quality of the final product, they requested samples in order to decide whether it was really what they wanted for the products.

In short, the main obstacles are those that arise out of the business plan that is made in advance. They suffered a setback when they hired a carrier that didn't assure that the glass packaging was properly packaged and transported; that was when almost half of the glass bottles that arrived were broken. Thus, they had to balance the investment and find the money to cope with the waiting period required for the production of new glass bottles, through the development of secondary products for other companies.

It was this business decision that allowed them to cope with the current expenses, but it was also what made the company deviate a little from the concept of D'Vine, to which they managed to return to within a year.

So, instead of producing the ten products that they had developed formulas for, paid for, and made the development tests, they started with four products, only to work as sampling, and then, when they contracted with the first distributor, with whom they combined special conditions, he financed the production of four more products, and they were left with a line of eight products.

### 5.4.3 *Relation Between Product Innovation and Territory Sustainability and Added Value*

Even though their products aren't exclusively organic or bio, the product correlation with the environment is very important for the brand concept and consequently a concern in acting accordingly to the natural environment preservation are followed, balanced with a profitable perspective of business management. Therefore, some solutions were found, from the wine production and fragrance used to the packaging characteristics. But the environmental sustainable allegation doesn't have, yet, a strong response from the market, which makes these options more difficult to follow. In spite of that reality, the company uses grapes from organic production and organic wine although not exclusive for their production. They use organic grape-seed oil extract that is made in an industry that manufactures ingredients for cosmetics. Although there is always waste, the grapes are also used in wine production.

As there are no cosmetic factories in the Douro region, they face another challenge as there are some aspects of sustainability that make the product more expensive, for example, the fact that the fragrance of Port wine is certified by Ecocert. The Ecocert Group is a leader in the control and certification of organic production worldwide, which, in addition to its capacity and know-how, makes use of its logo, additional guarantee of the quality of the service provided and value added for the recognition, in trust, of the products of its operators by many millions of consumers. But this process of certification is much more expensive, reflecting its costs in the final price of the products.

As far as the packing is concerned, the bottles are made of glass, airless, and opaque, thus reducing the number of preservatives to be added, and if it is sheltered from the air and light, the packaging itself contributes to the stability of the product throughout the shelf life.

The bottles also have an Ecocert certificate, and the glass and plastic used are 100% recyclable. They also allow using 95% of the amount of product inside because the bottle has a plunger and airless pump, which is not aerosol, that makes the product go up making utilization rate practically total.

D'Vine's carton has the FSC (Forest Stewardship Council) symbol that certifies it comes from sustainable forests, and their serigraphy is not made hot, which would be polluting, but rather it is a cold carton stamping, and there is only one printer in Portugal that has a cold stamping machine, which immediately increases the price

of the packaging. There is no extra printing regarding the manufacturer's instructions for use, which are printed on the inside of the carton package.

There is a real concern with sustainability in the production of the cosmetics as well. As for the formulation of the product itself, they tried to avoid petroleum products although petrochemicals are widely used in cosmetics, such as paraffin, petrolatum, and silicone because they are cheap and completely inept.

If a company replaces petrochemicals with more active ingredients or vegetable extracts, the product increases in price.

Take an exfoliant, for example; there is a current controversy because the exfoliating balls are responsible for its abrasive effect and many of them are plastic polymers that can be bought, of any type and diameter depending on the level of abrasion that is intended. But this is changing; the UK was the first country to abolish these spheres, so our entrepreneurs tried to make an exfoliant without these spheres replacing them by a powdered walnut shell or powdered grape seed and put a film to mitigate the abrasion, getting a more enzymatic rather than mechanical exfoliator. This process also makes prices higher.

### 5.4.4 *Realize the Relation Between TIPs and Tourism*

This product is manufactured with local raw materials, such as biological Port wine, bottled, certified, and sealed, thus making the Douro brand completely associated with the Douro Skincare brand. The name of its main line of products D'Vine derives from Douro (D) and its vine.

One of the entrepreneurs said "we use local raw materials, to establish a direct relation with the Douro region. And if we used local products in the SPAS, we would establish a stronger relation with the region besides the landscape."

However, another entrepreneur revealed her reluctance in limiting the product to the region, when she said, "we selected Ana Moura (Portuguese well-known Fado singer) as the brand ambassador. She refers that they wouldn't want that D'Vine became just a line of regional products. They intended to promote a sophisticated and modern line of fusion cosmetics using Douro's references as an image capable of influencing behavior in a certain type of target market, women with buying power that relates to the uniqueness of the product and the region it portrays.

The product is intended to be much more than a cosmetic that uses an extract from a pipe of an autochthonous grape of the Douro."

They use Port wine and grape extracts due to the fact that these two components are certified products subjected to a rigorous quality control; they are not handmade products. The products are developed through an R&D process that verifies in all phases of their development and production the quality of the product and of the raw materials with suppliers.

Concerning the impact of Douro Skincare in local economy, they do not have enough data to register the impact of the firm on local economy yet; however they reveal some perceptions due to their participation in international fairs and events

that took place in several countries (France, Brazil, Japan, etc.) where people were curious about the cosmetics made with grapes and Port wine, and they wanted to know where the Douro region was and how they could visit it. This way, they were also promoting the Douro region through their products when referring to the raw materials' origin and the beauty of the territory.

Having the Douro as a brand could create more synergies; however, the market approach of the firm is broader. They have already established partnerships with hotels, and they have already sent samples to an international hotel chain that owns hotels in the region, to provide amenities from their lines. Sometimes local hotels and pharmacies also request products that are more directed to the tourist market, such as soaps or candles, which the company is considering to produce in a next phase, but for the moment, the company promotes a structured line of cosmetic products.

Nonetheless, the association with the Douro region as a brand also creates some barriers. They had some problems in using the brand Port wine. Initially, they wanted to use the label PORT WINE DNA, Douro Nuclear Aroma, playing with the acronym for human DNA, but they were just allowed to use Douro Nuclear Aroma, and they couldn't register the brand due to the barriers associated with "protected denomination of the region" that limited the disclosure.

In what sales are concerned, so far and since the beginning of September of 2015, they sold 100,000 Euros. The figures of 2016 were not closed by the time of the interviews yet, but they expect to have tripled that value till the end of the year.

#### 5.4.5 *Understand How They Develop the Brand and Their Relation with the Region*

The marketing strategy of Douro Skincare is based on the definition of the brand concept. It's a B2B2C business in which the privileged relation and contact are with distributors and intermediaries, and the brand has little connection with the final consumer, in spite of the business responsibility in the product image and positioning definition. The uniqueness and product differentiation are essential for a clear positioning and directed to a chic and demanding woman that is not subdued to normal elements.

The products also have in its brand the association with the Douro region and its wine for the obvious relationship between the natural beauty of the region and the attractiveness that the products intend to offer along with the uniqueness of Port wine aromas and colors added to the products and their packaging. Even the lines of the fusion cosmetics follow a specific glossary related to wine using words such as harvest to identify the lines and the age target of the creams, for example. They had to find an advantage because they already knew that people associated grape polyphenols as anti-aging substances and that resveratrol is regenerative so they wanted

to make a line that added something else since they thought that vinotherapy no longer brought innovation.

These grapes and this wine come from the Douro, a harsh environment, from a soil that is not favorable to the development of plants; otherwise, men would not have to build terraces to control the thermal amplitudes and the incidence of light; it is an unfavorable soil and therefore only fortified plants could grow there. These characteristics of the soil add character and distinction to the raw materials they use in the cosmetic lines and therefore to their products as well.

The completion of the differentiation of Douro Skincare is not made through price since they are not capable of mass production and consequently they try to link their products as selective cosmetics and not to derma cosmetics despite using pharmacies as retailers. The difference between the two is that the latest is linked to a medicinal perspective, thought to be prepared to protect several skin types.

The selective cosmetics intend to offer beauty, in a healthy way, in this case mainly through natural and sustainable arguments, adding performance ingredients to biological raw materials, but they are not mass market products.

Sometimes their products are mistaken by biological cosmetics because of the Douro, the vine, the wine, and the use of grapes, but they are not. Some lines even have gold in the composition, although they have the preponderance of plant extracts; they also have performance ingredients such as Enzyme Q10 and hyaluronic acid that are cosmetic top sellers, more associated with cosmetics rather than perfumery, which have a performance on the skin.

#### 5.4.6 *Future and Challenges*

Douro Skincare has two major goals for the future which are the sales increase in Portugal and the internationalization of the company and its brand.

They intend to upgrade the national market by having visibility and a strong distribution, consolidating the business value chain.

To export is a very important and determinant feature for the growth of the company, but they are aware of the differentiation between the regulations of the countries that they have to adapt to and the cultural issues they have to incorporate into the products in order to be accepted. These concerns are due to the goal to export to the Middle East countries, but also Japan, Brazil, or the USA.

For example, during their visit at a fair in Dubai, although people appreciated the presence of gold in the formulas and the wine aromas, the Muslim religion does not allow wine consumption, and their products claim the aromatic profile of the wine, Port wine. In this context, they are considering having a line that explored the Douro's almond and not the wine to cover these markets.

Not only market diversification is essential but also product variety. They are already testing some new products to complement the actual offer with the constant concern of listening to the market desires and needs. The company is only 3 years and it is still consolidating its market position.

## 5.5 Discussion of Results and Concluding Remarks

In terms of the research work and comprehension of the innovation factor of the company and its products within the smart specialization strategy, it is clear that there is strong investment in an innovation process based on a technological process that gives origin to a product innovation in the sense of a new form of producing cosmetics with a green market positioning in spite of their nonconsumer recognition as an environmentally friendly product. Maybe Douro Skincare hasn't felt this consumer recognition, mainly in their product sales or business income; nevertheless, the product in itself has a green positioning as it uses some organic resources and mostly because it has a very strong link to natural resources of a region.

The innovation process described not only has a technological improvement in the process of production definition due to a new application of a known technology but also seeks to reach the diverse dimensions of the innovation process, as described in the literature review. As the discussion provided by the case study concludes that Douro Skincare is directly related to Douro trademark, however, it follows a global approach that dispels the association with regional tourism.

As announced on the company's website, the regions of mountain viticulture are those that present greater scale, greater historical significance, greater continuity, and a greater biological variety of the grape varieties perfected here. Alto Douro is thus a striking example of landscape illustrating different stages of human history. In order to cultivate the vineyard on the slopes of the Douro and its tributaries, men had to produce soil and build terraces, traditionally supported by shale walls and, more recently, by vineyard leveling and "up" forms, susceptible to mechanization. The landscape of the Douro vineyard is today a complex and dynamic architecture, witnessing the continuous work of transforming the mountains into "hanging gardens," according to the expression of Jaime Cortesão (Portuguese writer).

Literature review underlines a positive relation between TTIPs and tourism (Ohe and Kurihara 2013; see Table 5.1); however, Douro Skincare doesn't have a direct relation with tourism and regional development due to their market target. This firm aims to achieve global markets with a product with high-quality standards and developed with the rigorous process and intensive R&D. Nevertheless, the association with the Douro could influence indirectly the promotion of the tourism in this region.

Yet, it is possible to find a relationship between Douro region as a brand and the consumers mainly in the sustainable perspective, but the mental connection to the region is already evident. As argued by several authors (e.g., Van Iltersum et al. 2003; Charters and Spielmann 2014), we may observe a direct connection with Douro region and its two most important assets: beauty and nature. In this sense, we may call the business and its products clearly trying to take advantage of a well-known region, linked to the main raw material used and a strong mental and emotional connection with the splendor and natural environment of the region. There is a stronger relationship to develop between these allegations and the consumers,

Table 5.5 Validation of hypotheses

Hypotheses	Validation	References
H1: Product innovation allocating regional resources, within a smart specialization strategy, contributes for territory added value through entrepreneurial process	Valid	CCDRN (2014), Rennings (2000), and Paiva and Proença (2011)
H2: The entrepreneurial project using TTIPs influences positively regional tourism	Reject	Ohe and Kurihara (2013)
H3: The use of TTIPs influences positively marketing brand	Valid	Van Iltersum et al. (2003) Charters and Spielmann (2014)

mainly in the sustainable perspective, but the mental connection to the region is already evident.

With all this in mind, we also may add that smart specialization strategy of the region is also addressed here since there is a clear impact of the business activity with the region and its growth and development concerns and the RIS3 for the North Region of Portugal. This company and its products are in tune with the strategic policies defined for this region in terms of agro-environment. We believe that the smart specialization axes of the North Region of Health and Advanced Production Systems Environment are also addressed here, but the connection is not so strong and evident.

So, we may conclude that two of the three research questions were positively answered by the business activity, strategy, and positioning of Douro Skincare (see Table 5.5). Further research aims to develop a broader study considering other topics such as internationalization that, also, could provide more insights in order to validate the full impact of the business activity.

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## Chapter 6

# Entrepreneurship and Innovation Ecosystem's Drivers: The Role of Higher Education Organizations

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**Abstract** Extant empirical entrepreneurship studies recognize that the main challenge of emerging economies is transforming into entrepreneurial societies. Following this perspective, the involvement of several actors (government, universities, entrepreneurs, investors, etc.) is required in this evolutionary process. In this regard, emerging economies' governments promote the configuration of entrepreneurial ecosystems to achieve this transformation. Even in previous insights, the role of each actor is an interesting attention for academics and policy makers. In this sense, this chapter tries to provide a better understanding about the role of higher education organizations as driver of entrepreneurship and innovation ecosystems in Mexico. Our analysis provides evidence about the relevance of incentives in configuration of triple mission of Mexican higher education organizations as well as their lower participation in the involvement of innovation and entrepreneurial activities.

**Keywords** Entrepreneurship • Innovation • Higher education organizations • Mexico

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