

13. DESIGN AND TERRITORIAL DEVELOPMENT

CONTRIBUTIONS TO EVALUATE DESIGN INVESTMENT IN PORTUGUESE AGRO-FOOD INDUSTRY

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ABSTRACT

Portugal due to its geographical location enjoys a joyful gathering between the Atlantic, the wind and the sun, which allows quality production on agricultural products. These characteristics can be felt through the form, the color, the texture and the taste which distinguish and differentiate these products anywhere in the world. They are enriched with habits and traditions expressed in the mode of production, preparation and food tasting that define a way of being, a culture, an identity.

In general, the companies believe that design collaboration is an advantage but if they do not have means of measuring design's cost/benefit, it will not be easy to understand design as an investment that brings value to business. The purpose of this research is to draw the SMEs attention for the importance of design management, by evaluating the return of design's investment in the Portuguese agro-food industry by developing a model that allows them to assess the return on investment in design.

Keywords: Agro-food, Design value, Investment, Return

1 INTRODUCTION

Portugal due to its geographical location enjoys a joyful gathering between the Atlantic, the wind and the sun, which allows quality production on agricultural products. These characteristics can be felt through the form, the color, the texture and the taste which distinguish and differentiate these products anywhere in the world. They are enriched with habits and traditions expressed in the mode of production, preparation and food tasting that define a way of being, a culture, an identity. Mediterranean diet more than a culinary program is a way of life, a way of living and sharing the table, which is reflected in the production, preparation and tasting of the food. This denotes an active relationship between consumers and producers, valuing local products and favouring the season (Petrini, 2012, p.15).

The Mediterranean diet global economic value is esteemed to represent 1.9% of the GDP and the endogenous assets are esteemed to account for about 8% of national exports and above 12% of employment (Dieta Mediterrânica, 2014, p. 53). Despite being a small farmer, Portugal “can bet on cultural diversification and differentiation arising from the intrinsic quality of the products allowed by the unique climate and soil conditions. These are real endogenous assets that urge to protect and develop” (*idem*, 2014, p.63). This is the reason why one of the topics covered in the conference “*Empreendedorismo Agrícola - Cultivar o Futuro*” was to add value to agricultural products in general and in particular in *Beiras* region, where the supply is characterized by the variety, quality and PDO. (Beiras descobrem o poder da maçã e das marcas DOP, Maio, 2014). We need to know that behind these products there is a history, a tradition, a way of being. There are people in love with what they do, committed to improving the quality and food safety of agricultural products. Who most often choose to produce native species how is the case of *Quinta Vale Formosa* in Belmonte that lays a bet in the production of apple native species from *Beira*; *Bravo Esmolfe*, which is PDO¹ certified and the varieties *Pero Pipo* and *Malápio da Serra* and what has been done by the Associação Nacional de Criadores de Ovinos Serra², which has focused on developing new products based on sheep's milk whey - butter and yogurt (Deusdado, 2014). According to Henrique Herculano one of the strategies that have been adopted by olive oil producers to promote and give visibility to this is the participation in competitions (2012, p.13),

¹ PDO - Protected Designation of Origin

² National Association Sheep Breeders of Serra da Estrela.

because even though olive oil is part of our daily lives, there is generally a lack of knowledge about the criteria to be taken into account when it is acquired (*idem*, 2012, p.5).

Due to its work process the design can collaborate with the company, it can draw solutions with and for the people, integrating wherever possible all contributions in terms of the economic, environmental and social limitations inherent. Or based on the needs it can create a vision, an ideal that you would like to enjoy, a meaning. Because in nowadays to achieve our space in this share economy, we need a meaning. Not a market or a concept but a meaning. Meaning implies to go deeper to the roots allowing us to have another vision of them, and turn ideas and skills into a proposal focused on the service rather than the product. This brings to light beliefs and values which make our business real and close to the community. Instead of competing with a product, we offer a commitment that will not be easily replaced by money. Generally companies invest and see the advantages of the design collaboration, however if they have no means to measure the cost / benefit it will be difficult to understand design as an investment that adds value.

2 METHODOLOGY

We started this study with a literature review of “Design value”, with special focus on Brigitte Borja de Mozota and Xenia Viladas work, by the Design Council, Gert L. Kootstra to DME - Design Management Europe, DBA - Design Business Association and the recent project coordinated by Antti Pitkänen the *Design Roi* - measurable design. Also the different studies and programs elaborated or supported by the European Union in order to encourage the companies to invest in design, and the books of Robert Verganti and Roger Martin.

To work on this case study we propose to apply the Direct Observation method with mechanical support and Survey for data collection. With the Direct Observation method we want the data collection to take place on the company’s premises, because we believe that personal knowledge is essential to involve SMEs in the research. The visit include a brief presentation of the research and the answer of a short survey, which aims to obtain information about; the *company's strategy, financial data* (to apply to the financial indicators: ROI, ROA, payback and RODI), the *company's use of design*, we apply The Design Ladder, that consists in 4 steps: Non-design, Design as form-giving, Design as process and Design as strategy, and to identify *the vehicles used by companies to communicate their identity* we use the Visibility Vectors develop by Xenia Viladas: Products, Communication and The Spaces (Viladas, 2010, p.39).

Up to now about 20 SMEs were visited, the vast majority located in Beira regions and in the regions of Oeste, Ribatejo, Alentejo and Porto. These companies produce olive oil, fruit, wine, rice, cheese and chocolate.

3 ANALYSIS

The data collected so far indicate that most of these companies usually invest in design, but as a technical skill, because despite they are interested on design skills, they don’t know how it can add value to the business. Therefore, most of the SMEs visited are at step 1 and 2 of The Design Ladder this means that usually these companies do not use or just use from time to time design (*Non-design*), or use regularly design but in a perspective of a project conclusion (*Design as form-giving*).

From the information obtained and based on our review of the literature and the management tool Balanced Scorecard we built a model for investment evaluation in design, whose indicators depend on the objectives and targets to be achieved, and on the means available to evaluate them, so that they actually represent the purposes and the company's ability to accomplish and evaluate them.

4 MODEL

The model takes as its starting point the definition of a purpose that comes from the strategy followed by the objectives and targets to be achieved.

Although the model is composed by several phases, the development process is not sequential, because all stages are related and will be adapted to achieve the objectives.

A relationship of cause and effect that allows you to monitor the process and fine-tune or fix the path outlined in one or more stages whenever necessary.

The model consists of two categories of assessment, one with strategic guidelines and the other with performance indicators, both categories are defined according to the needs, capabilities and means that the company has to evaluate.

The first category is dedicated to the strategic guidelines and includes the phases of Project, Objectives, Targets and Initiatives.

The Project is a starting point for achieving certain goals outlined by the strategy.

Objectives should focus on the creation of value based on the three pillars of sustainable development: social welfare, environmental friendliness and economic prosperity.

Targets translate into value what you want to achieve at a pre-defined period of time.

And the Initiatives are the operationalization of the Project to achieve the Targets, namely the create of a program of activities where design is present through: Products that comprise the offer, Communication that comprises the corporate identity and Spaces where the company's activities are developed.

In the second category the performance indicators include the Qualitative and Quantitative Metrics to evaluate the process and the Outcomes.

STRATEGY

01. PROJECT

The **Project** is a starting point for achieving the goals outlined by the strategy

Suggestions:

- Identify a need
- Create a new product
- Reduce fixed costs
- Add value to...**

→ 02. OBJECTIVES

Description of what is required with the **Project**, based on the pillars of **sustainable development: Social, Environment and Economics**

→ 03. TARGETS

Definition of the results to be achieved for a period of time

← **Social
Environment
Economics**

→ 04. INITIATIVES

Activities to undertake to achieve the Objectives. **Design is present at:** Product, Communication and Spaces

Product: develop or adapt a product or service according to an opportunity or a perceived need

Communication: corporate Identity and materials creation

Spaces: areas where there is business activity

INDICATORS

05. QUALITATIVES

Metrics selection to evaluate the results

06. QUANTITATIVES

Metrics selection to evaluate the results

OUTCOMES

Figure 1: Model to evaluate the investment in design

5 CASE STUDY - COOPERFRUTAS

Cooperfrutas, CRL is an Organisation of Fruit Producers (OP), recognized and awarded in recent years with several distinctions such as PME Leader and PME Excellence. It counts currently with its own production of fresh fruit, namely Rocha pear, apple in several varieties, plum and peach and has also production of fruit purees with no added sugar, which are distinguished by their high quality standards.

Associated with its activity it develops a set of actions and practices to improve its environmental performance. In the central fruit warehouse has implemented a Rationalization Plan of Electric Power, installed a photovoltaic power production unit and since March 2016 makes composting of organic waste from its activity.

STRATEGY | Case study

01. PROJECT

Organic compost production
On the market since March 21, 2016

02. OBJECTIVES

Sustainable development

SOCIAL

To help to improve good environmental practices

ENVIRONMENT

Reusing waste produced
Reduce CO2 emission

ECONOMICS

Implement the circular economy

03. TARGETS

SOCIAL

● To improve the consumer's satisfaction

ENVIRONMENT

● To reduce the waste
● To add value to the Waste

ECONOMICS

● Increase brand value
● Increase assets

04. INITIATIVES

Design is present at:
PRODUCT

Organic compost in recyclable packaging

COMMUNICATION

Packaging with sustainability information used
Support a social cause and or an action for the environment

SPACES

Local market

Site and social networks with information about composting process and benefits to the environment

Invitation to make "Registration" on the site

INDICATORS | Measures

05. QUALITATIVES

- ● Number of followers
- ● Mentions and "likes" in social media
- ● Participate Kick-off event
- ● Number of requests for clarification
- ● Brand value

06. QUANTITATIVES

- ● ● RODI (design)
- ● ● ROI
- ● ● ROA
- ● Production costs
- ● Average stock

OUTCOMES

since March 21

1st batch of Organic compost sold

Distribution within the initial forecast:
Cooperfrutas shop + 3 local shops

Initial stock sold out in 6 weeks in Cooperfrutas shop

The interest that the product has raised in the media and the community in general made possible to inform about other actions that have been made to improve energy efficiency and associate Cooperfrutas as an environmentally friendly brand

Figure 2: Application the model to evaluate the investment in design in the new product of Cooperfrutas - Organic Compost.

Cooperfrutas is applying the design evaluation model in investment in the new product - Organic compost. The collaboration began with the presentation of the model and a joint work to think and define all parameters that make up the model starting at the identification of Objectives focusing in the creation of value sustainable development: social welfare, environmental friendliness and economic prosperity, the Targets to achieve and the Initiatives to obtain the Targets where design is present through: Products, Communication and Spaces.

The Organic compost are on the market since 21 March and until now we obtain these Outcomes: the 1st batch of Organic compost it was sold, the distribution of the product within the initial forecast (Cooperfrutas shop and more 3 local shops), initial stock sold out in 6 weeks in Cooperfrutas shop and the interest that the product has raised in the media and the community in general made possible to inform about other actions that have been made to improve energy efficiency and associate Cooperfrutas as an environmentally friendly brand. But above all the work we have been developing together with the company and the operationalization of a new offer has allowed to understand the collaboration of design in the product development process and how it can add value.



Figure 3: Organic Compost.

6 CONCLUSIONS

Portugal due to its geographical location enjoys a joyful gathering between the Atlantic, the wind and the sun, which allows quality production on agricultural products. These characteristics can be felt through the form, the color, the texture and the taste which distinguish and differentiate these products anywhere in the world. They are enriched with habits and traditions expressed in the mode of production, preparation and food tasting that define a way of being, a culture, an identity. Design can collaborate with the company, it can draw solutions, but above all it can create closeness and trust through a narrative that shows the products' route to reach the final consumer, developing an offer that will not be easily replaced by money. Generally companies invest and see the advantages of the design collaboration, however if they have no means to measure the cost / benefit it will be difficult to understand design as an investment that adds value.

The model that we propose contextualizes the intervention of the design which can be of social, environmental and economic range and identifies its collaboration: product, communication and space. We believe that it can help the companies to evaluate the investment in design as well as to turn the collaboration in the development of a product or service process more profitable, because when describing the steps required to implement a particular project, the model shows what you want to achieve as well as its procedure. It provides an overview that helps to focus on the essential and to monitor the development process.

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