

CO-CREATION INNOVATION IN CONSUMER GOODS INDUSTRY: THE CASE OF BARILLA GROUP (A)

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Abstract—There are different definitions of innovation in the management and economics literature originating from different theoretical perspectives. It is very important not to confuse the term innovation with the term invention, as people tend to do. While invention means creating new products, innovation starts with the creative ideas that, in the end, transform in inventions. Co-creation represents a business strategy focusing on customer experience and interactive relationships. The aim of this paper is to explore and identify the involvement of stakeholders in Barilla’s product development or improvement through co-innovation. The foreseen result is highlighting the platform’s features for consumer’s engagement in the value creation and co-creation.

Keywords: co-creation, creativity, innovation, social media

I. INTRODUCTION

CO-CREATIVITY involves the social learning processes through which people experiment and adjust to different opportunities and risks. People learn one from each other by imitating, copying, and adjusting their behavior regarding the way they create and collaborate with the help of online networks [1]. Thereby, in a process of co-creating things people create practical connections, connections that generates, in the end, value [2].

According to Business Dictionary, co-creation represents a business strategy focusing on customer experience and interactive relationships. Co-creation offers the possibility and encourages a more active involvement from the customer to create a value rich experience [3].

The connections that form during the co-creation process do not establish only between users and consumers. In turn, consumers interact and connect with media professionals, considering that they collaborate in the creation of these co-creative experiences [1].

When one talks about co-creation, he/she talks about user-created content and user-generated content, because media consumers create and share content.

Creativity is universally perceived as a positive feeling, representing the ability to produce work that is

both new and valuable [4]. New refers to something unique, unusual, new point of view, varied, original, different from existing patterns and contributing with something to the field which was not there before. Valuable indicates the fact that the product meets a need or solves a problem, being useful, effective, and efficient; it serves a purpose and contributes to society. Who wants to be uncreative, [5]?

There are different definitions of innovation in the management and economics literature originating from different theoretical perspectives. What must be considered is that innovation does not mean invention. Often these two terms are confused, even though they mean different things. While invention means creating new products, innovation starts with creative ideas that are transformed in inventions.

The economist Tapan Munroe highlights the fact that there is innovation, and that there is Innovation, as well. While *Innovation* refers to inventions, such as the internet, *innovation* is responsible for the little improvements made for a better life, to grow a business, to improve product/services or company’s productivity. It is, basically, about things that we daily feel, [6].

Entrepreneurs are also considered the agents of innovation and creative destruction [7]. Yet, Schumpeter explained innovation in terms of the role of entrepreneurs as individual inventors, not as instituted processes or organizational capability [8].

Entrepreneurship seeks to perceive opportunities and bring them to reality, in order to capture a part of the value created, [1].

Perceivable/reasonable approaches to creativity relate to an important task of entrepreneurs: generating novel and useful ideas for business ventures. For this, knowledge has an important role, as it can either enhance or inhibit creativity.

II. CASE STUDY: BARILLA BRAND AS PART OF BARILLA GROUP

The following is a summary of the first section of

Barilla case study that has been divided into two main sections: *The Firm and the Innovation Management and Co-creation in Innovation*.

In the first section we aimed to obtain data regarding Barilla Group and its preoccupation toward innovation and co-creation in the manufacturing of its products. The goal to obtain such data was to familiarize with both the type of business that is the subject of this research, and how innovation is part of Barilla's goals.

A. Who is Barilla Group?

Barilla is a private property owned by the well-known Barilla family, whose fourth generation has as a commitment, for the present days, the production of quality and innovative products as its great-grandfather used to over 130 years ago. It is in fact the continuation of the tradition initiated in 1877, [9].

BARILLA G. e R. FRATELLI is a sole limited liability company, having the main headquarter in Parma, at the following address: Via Mantova, 166 - 43122 Parma, www.barilla.com, relazioniesterne@barilla.it, telephone: +3905212621, fax: +390521270621, with the social capital in Euro 180.639.990,00 = i.v., the fiscal code and the registration number in the Commercial Register of Parma: 01654010345. The company is subject to management and coordination of "Barilla Iniziative Srl" (section 2497, Italian civil code).[10]

If Barilla Group's vision is to help people to live better, bringing into their daily lives wealth and the joy of healthy eating, their values are: *passion, intellectual curiosity, courage, trust, and integrity*. These values represent what the Group trusts in, being daily inspired by, since 1877 [11].

The main priorities of Barilla focus on two lines of products: *Italian pasta and bakery products* that find their place in one of the following brands:



Fig. 1. Barilla Group's brands

In 2013 important developments were realized by Barilla Group. According to their report, key facts for 2013 are [12]:

- 1) 41 products have been reformulated in order to improve the nutritional profile;
- 2) 12 new products were made of wholegrain or fiber;
- 3) 5 products have benefited of additives removing.

B. About Barilla Brand

Among the above, Barilla brand is the main *Italian pasta* line that comprises of 9 important categories of products: *Classic Blue Box, Sauce, Italian-Style Entrées, PLUS®, Whole Grain, Veggie, White Fiber, Gluten Free, Collezione*. These categories are also classified according to both their shape and cooking time.

Barilla brand annually launches approximately 50 new products. This represents the final stage of a long process that proposes to create new products that will satisfy the needs of those who will buy and put them on their table.

The process that leads to the creation of a new product is divided into several stages, grouped, in turn, into four moments. The results are evaluated at the end of each of these steps and in this way it is taken the decision if the development should continue or not [13].

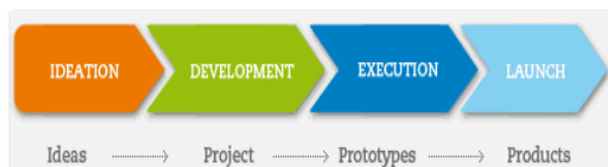


Fig. 2. The process of Barilla's products creation

The process is based on the interaction between different professionals, that can be from inside and from outside the company. They are brought together due to the tight relation among people that design the products and those for who are designed, namely the stakeholders.

Each design team collaborates with a selected group of people that participate, in an active way, to the creation of new products. They are not just tasters, but also proactive persons involved, in the development process right from the first stages [13].

III. BARILLA STAKEHOLDERS' INVOLVEMENT IN THE PROCESS OF CO-CREATION AND INNOVATION

In terms of innovation, Barilla aims to become the home of competence and a hub for innovation in order to increase/ educate the food industry as an enduring concept. The company's best practices are shared, and the core capabilities are developed, making science a force that pushes people towards continuous improvement and brand management.

Barilla annually invests its innovative energies in almost 150 projects, projects can currently be found in various stages of progress, to be completed between two and three years. These collections of projects form the Barilla's portfolio of innovation, which is constantly revised based on identified priorities.

At the same time, research proprietary/ patented projects engage internal and external resources in a

network of innovation, leading the company through a maze of creativity to identify, develop and adopt new and sustainable styles of food and taste.

Research and Development department is a very important part of the Group's structure, as products produced under Barilla brand represents the main tool of communication used to reach people across the globe. The main responsibility for Research and Development is to delight those to whom they Barilla products are intended. Only by establishing a direct and personal relationship with them, knowing their various life styles and full understanding of their expressed and latent needs, can lead the company to the development of new solutions and products that people can adopt into their daily life [14].

As part of the Barilla team, anyone is involved in the full life cycle of product's realization, from initiation to production stage. From idea's generation and personal creativity/innovation through with the help of ingredients, nutrition science, technology, process definition and packaging, the members of the team involved in products creation will work with experts from many different disciplines: from ripening, paste extrusion, drying, cooking, stabilization food technologies, beverage processing, to physics - chemistry, microbiology, rheology, and wheat food plants' research, science of ingredients, sensory analysis, evaluation and recommendation of nutrients, to market research techniques, statistics and projects, opinion surveys, knowledge and people management. All these are necessary to bring the product from the laboratory to the market, and this experience is seasoned with a strong incentive for innovation, a large dose of passion, and the wish to work together for success [14].

The involvement in new product development can be achieved as well for a specific consumption objective, or in thinking about new and healthy foods for our future living daily in a world full of fresh ingredients, technologies, processes and food experiences. An entire network of international experts and academic leading groups assure the connection between the company and the latest scientific discoveries and news related to nutrition [14]. For the company, this means being able to provide more and better opportunities than any other company, working with a considerable sense of ethics and responsibility towards the people/stakeholders and the Barilla name they represent.

Barilla focus on quality and nutrition is always absolute and united by the desire to pleasantly surprise every time, those who choose and put them on their table. The process by which a new product, born from an idea, is brought to life is fascinating. This process includes a series of interactions, sometimes unpredictable, between the development of prototypes, on one hand and permanent contact with the final consumers of products, on the other hand, to ensure the best quality final product.

In terms of stakeholders, Barilla addresses to those that work, activates in one of the following fields [15]:

- 1) *Media, at local, national, and international level;*
- 2) *Scientific Community, at local, national, and international level;*
- 3) *Institutions*
- 4) *NGO and Civil Society, at local, national, and international level;*
- 5) *Barilla People, at local, national, and international level;*
- 6) *Trade and Retailers, at local, national, and international level;*
- 7) *Consumers, at local, national, and international level;*
- 8) *Local Communities, only at local level;*
- 9) *Suppliers, at local, national, and international level;*
- 10) *Universities and Research Centers, at local, national, and international level;*
- 11) *The Financial World at local, national, or international level.*

Among the policies practiced by Barilla, that of stakeholders' involvement in the development of initiatives, at different levels, from simple communication, and reaching collaboration in mutual projects, has a major importance.



Fig. 3. Barilla's stakeholders map [16]

As an example, 2013 hosted the fifth edition of the Barilla Panel, as a supplement to the many activities that are carried out in collaboration with external stakeholders. Barilla Panel assigns to work a full day for annual promotion together with the Group's main categories of stakeholders: suppliers, trade associations, scientific community, consumers, NGOs, media, institutions, and various business partners.

The Panel represents [15]:

- 1) *An opportunity for debate and dialog about the Barilla's chosen way of doing business: „Good for You, Good for the Planet”.*
- 2) *A discussion with partners on projects and activities in order to understand and appreciate the needs of local communities where Barilla is found.*

The 2013 edition was the first to include an

international round table with focus on young people less than 35 years. Several important issues came to light following this meeting. According to them Barilla has defined its activities for 2014 and has designed the reporting system Good for You, Good for the Planet.

The dialogues with stakeholders, from October 2013, also facilitated an important meeting in collaboration Centromarca the leading Italian consumer association, held at the Group's headquarters in Parma. For two days Barilla could analyze how to interpret the business, quality and innovation: useful incentives to improve Group's overall work were accumulated, working to assess the relationship between industry reflections as brand and consumer association in times of strong changes in the social and economic context nationally and internationally.

One way of exploring market opportunities lies in the direct involvement of consumer. This involvement was materialized through practices of *call to action* type, through competitions. Basically the company is interested in finding out how consumers, divided into participants and fans of competitions, see Barilla products, their expectations from them, what improvements can bring them or, why not, what other products can be innovated. In the same time, the creative or/and designer character of consumers is highlighted, the company being concerned with the development of a Barilla community of creative.

Through the existence and functioning of *Barilla LAB for Science and Innovation* laboratory the company is able to make a differentiation from competitors. Barilla LAB for Science and Innovation is a multidisciplinary corporate university founded by Barilla, in order to develop / qualify skills of people that find themselves on the road to technical excellence and leadership. Through a variety of leadership and training development programs, as well as through ad-hock initiatives, Barilla supports the development of skills and competencies needed to successfully deliver current and future objectives [17]. The emphasis is on sharing and aligning existing knowledge activities within the company, while maximizing new best practices of science and trends.

LAB also acts as an accelerator for innovation by facilitating research on various topics, such as consumers' developments and trends, social and economic development models. At the same time it connects with top research centers and institutes [17].

In order to develop or innovate products, taking into account the level of fat, sugar and salt, set for each category, to reformulate existing core products, in order to reduce certain nutrients, Barilla invested in 2013, 40 million euros in research and development on both products and processes and 107 million euros in technology and production facilities [18].

IV. BARILLA'S WAY OF DOING BUSINESS

Barilla's clear vision is to *double its business by 2020*,

by continuing to reduce footprint on the planet and promoting healthy and happy habits. To be the most reputable leading company in Italian food experience, at global level and strong in the bakery industry is intended [19]:

1) *To suddenly increase the pasta, sauces and appetizers / snacks in volumes and shares:*

a) by leading on present markets by increasing the market share;

b) by aggressively expanding on emerging markets.

2) *To fuel/motivate the leadership on main bakery markets;*

3) *To customize both geographical coverage and channels to serve customers wherever they want to buy from.*

Barilla Group's strategy to fulfill the vision / clear aspiration for 2020 [19]:

4) *To be people's first option when choosing from brands and products;*

5) *To win markets;*

6) *To continuously improve / develop;*

7) *To practice one way of doing business;*

8) *To proudly be Barilla People.*

Pietro Barilla's encouragement for long-term / future orientation / sustainable development is to move forward only with courage. Carrying this in their heart and mind today Barilla produces products that are: *Good for You, Good for the Planet*, resulting in the end: *One way of Doing Business* [20].

Barilla brings to people the joy of eating well through a variety of tasty and safe products, offering nutritional benefits. Right from the start, Barilla united the economic objectives accomplishment with the social obligations of the areas in which it operates. Knowledge of economic and social context together with integrity, transparency and innovation has facilitated founders the identification of their entrepreneurial style, passed down from generation to generation.

To realize products that are good for us all and good for Planet is the only way that Barilla has identified to grow, develop and double its business by 2020, with the purpose to strengthen its presence on the existent markets and to expand on the emerging markets [19].

Thus, what others call "sustainability" to Barilla it is in fact its unique and distinct way of doing business: *Good for You, Good for the Planet*. This is the only way that every person in the Group works and the way they are ambassadors of the Group. It is about a strong identity which expresses the company's contribution to the sustainable development of the community and the planet, an expression of thorough attention to quality of products and processes that are part of daily work at Barilla [20].

This main objective of Barilla Group, by 2020, can be both categories and explained as it follows:

Good for You – By 2020 Barilla aims to provide the joy of consuming its products, and a state of prosperity / health as well, to more than 1 million people worldwide,

by [20]:

1) *Quality*

a) be the people's main option for brand and products in terms of taste and nutrition. For this indicator realization a system of precise analyses was established and put in practice, since the beginning of 2014;

b) it is considered 100% compliance of Barilla's volumes with respect of latest quality and food safety standards confirmed by external certification organism (98.5% of Barilla products are certified by an external body, in accordance with the latest international standards).

2) *Nutrition*

a) double the volume of products that can be found at the bottom of Double Pyramid;

b) about 80% of Barilla products are based on nutritional pyramid.

c) to 2010 there was an increase from 70% to 90% of the total volume of products made according to Barilla Nutrition Guide. Actually, 85% of Barilla products are in accordance with Barilla Nutrition Guide.

Good for the Planet - By 2020 Barilla will produce products that can only be found at the bottom of the environment pyramid, acting with responsibility for all strategic supply chain [20]:

1) *Environment*

a) 100% of Barilla products will be at the bottom of the environment pyramid according to the methodology of life cycle assessment;

b) 30% water and CO₂ reduction per ton of finished product, according to the production process in factories, compared with 2010.

2) *Supply chain*

a) 100% of strategic raw materials to be purchased by applying the most advanced standards of accountability regarding strategic supply chains: durum wheat, common wheat, tomatoes, oil, eggs, packing;

b) sustainable cultivation projects' development for all worldwide strategic supply chains.

Good for Communities - Barilla will spread its way of doing business to millions of people across the planet, through information, education and community activities, with the purpose to improve social conditions and responsible choices [21].

1) *Information and Education*

a) by extending *si.mediterraneo* project to all employees of Barilla, from all over the world, and to people, using catering and distribution channels;

b) hitherto, *si.mediterraneo* project was extended to more than 6000 employees of the company;

c) providing to people scientifically based information about food and nutrition, and providing young people with educational pathways;

d) Barilla provides information through various initiatives promoted by their own brands, and continuing *Giocampus* project.

2) *Social Inclusion*

a) Barilla is concerned with the continuous improvement of people in need by donating food, social and

educational projects against food waste;

b) Barilla donates tons of food for people in need, or through plans to support people affected by natural disasters or by donating products to NGOs.

The Barilla Group structure there is also the Risk Assessment compartment that dealt with the development of a model for risk assessment. Through this model critical supply chains have been identified about food safety, worker safety, environmental impact and animal welfare. Thus, Barilla has initiated two programs for a sustainable supply chain, with focus on other strategic materials:

1) *Sustainable Grains*

2) *2016 Earth*.

C. Future Projects

One of the Barilla's major concerns is the permanent initiation of various projects, be it the development of new products, new technologies/ plants, or projects of information/ education, social inclusion and environmental protection.

Future projects are mainly related to sustainability, aiming at achieving by 2020 good products for us, for communities, for the planet. Through these projects, Barilla aims. Through these projects Barilla aims to:

1) *Reduce food waste* to 50% by 2020.

2) *Promoting sustainable agriculture* by adopting land reforms and opposition to financial speculation on food and limiting the use of biofuels food-based;

3) *Promoting healthy lifestyles and combat obesity*, emphasizing nutritional education from childhood.

Barilla always takes into account projects that lead to:

1) *100% products realization with the respect of quality standards and food safety, in accordance with the Barilla Nutritional Guide;*

2) *Double the volume of products from the Double Pyramid's basis;*

3) *Water reduction of 30% and CO₂ per ton of finished product, according to the production process in factories;*

4) *100% acquisition of strategic raw materials by applying the most advanced standards of accountability;*

5) *Projects development for "Sustainable Cultivation" for worldwide strategic supply chains.*

V. CONCLUSION

Barilla annually launches approximately 50 new products. This represents the final stage of a long process that proposes to create new products that will satisfy the needs of those who will buy and put them on their table

In terms of innovation, Barilla aims to become the home of competence and a hub for innovation in order to increase/ educate the food industry as an enduring concept.

Barilla annually invests its innovative energies in almost 150 projects, projects can currently be found in various stages of progress, to be completed between two and three years.

As part of the Barilla team, anyone is involved in the full life cycle of product's realization, from initiation to production stage. For products development or creation, an entire network of international experts and academic leading groups assure the connection between the company and the latest scientific discoveries and news related to nutrition.

As for stakeholders, their involvement in the development of initiatives, at different levels, from simple communication, and reaching collaboration in mutual projects, has a major importance, representing one of the main policies.

As for products, in 2013 important developments were also realized by Barilla. The key facts of 2013 can be found in the Annual Report prepared by Barilla, where we are informed that: 41 products have been reformulated in order to improve the nutritional profile; 12 new product were made of wholegrain or fiber; 5 products have benefited of additives removing.

Also in 2013, Barilla has exported to more than 30 countries, recording net sales of 3,535 million euros, of which EUR 3,198 million euros were recorded by Barilla G.eR. Fratelli. The number of employees, in the same year, was 8,106 people, of which 4,134 in Italy, and 3,972 in the world.

The attention was directed 50% to food solution, and 50% to bakery products, leading to the production of 2 million tons per year.

In order to develop or innovate products, taking into account the level of fat, sugar and salt, set for each category, to reformulate existing core products, in order to reduce certain nutrients, Barilla invested in 2013, 40 million euros in research and development on both products and processes and 107 million euros in technology and production facilities.

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