



Universidad Pontificia Comillas

Master's Thesis

Title: Powder Shampoo as a Sustainable Disruption
in the Haircare Industry
A Business Model for the Hospitality Sector

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1: Abstract

Over the past few decades, consumers have become increasingly aware of the sustainability and environmental impact of products. The cosmetics industry has not ignored this evolution, and faced with the demand for ecological products, new alternatives are emerging, trying to reduce each and every one of the environmental impacts.

Among these options, solid shampoos have managed to have a leading role due to their multiple benefits, including the decrease in the use of plastic packaging, the optimization of water consumption and the use of biodegradable and natural components.

On this matter, (Rodríguez et al., 2014, p. 3) argues that:

It is imposed what truly is ecological and conditions and restrictions in connection with the development and manufacturing of these products are implemented by different groups of individuals.” A then “formal organic movement” begins, first among small groups in Europe and the U.S. and then throughout the world”.

Against this social issue and the absolute need to bond with a moral response within the recent setting, the current research pursues the goal to verify the feasibility of an operation dedicated to the manufacturing and sale process of a powder shampoo in the Spaniard country. This product, a novel and more sustainable alternative will not only contribute to lower plastic pollution but also to the decrease the carbon footprint of production and transport (Ioakeimidis et al., 2016)

This review will help us to focus on the main points of the business, including analysis of the market and the competition, review of the cost structure, review of the environmental impact of the business and review of the most efficient marketing methods to ensure penetration of the market.

The motive for this project emerges from a necessity for a representative and relevant transformation in the traditional cosmetics industry that is known for extensive waste and pollution.

According to Ramos (2024, p. 1), he argues that:

“Each application of daily cosmetic products releases an average of 100,000 tiny microbeads less than a fraction of a millimeter in diameter. Moreover, products such as exfoliating scrubs could release between 4,594 and 94,500 microplastics in a single use”.

Similarly, Ramos, (2024) argues that:

“Microplastics are a risk to human health and the environment. So, there is no reason to purposely introduce microplastics into products that are used by millions of consumers and end up in the aquatic environment. Moreover, once they enter the marine environment, they are almost impossible to remove”.

Traditional shampoos, predominantly liquid-based, contribute to significant plastic waste and environmental degradation due to their single-use plastic containers and water-intensive formulation. As sustainability becomes a priority for modern consumers, brands are innovating to develop alternatives that reduce environmental impact while maintaining product efficacy (Anthony, 2024).

In contrast, powder shampoos offer a more sustainable and effective alternative, as they eliminate the need for plastic packaging, have a higher concentration of active ingredients and have superior durability compared to their liquid counterparts (Blair, 2024).

To achieve this objective, firstly, an analysis of the Spanish market will be presented to identify consumer trends, the main competing brands, and the degree of acceptance of this type of product among consumers. Subsequently, an external and internal analysis will be carried out using strategic evaluation tools such as the PESTEL analysis, Porter's five forces model and a SWOT analysis, to identify the factors that could influence the success or failure of the venture.

In terms of operational aspects, the supply chain will be studied in detail, from the selection and acquisition of raw materials to the production and packaging process.

It will also address the distribution logistics and marketing strategies needed to position the product in the market, as well as the legal requirements and certifications that must be met to guarantee the quality and sustainability of the product. A fundamental aspect of the study is the economic and financial evaluation of the project.

To this end, an analysis of initial investment, operating costs, and income projections in different scenarios (pessimistic, realistic, and optimistic) will be carried out. Based on these calculations, the profitability of the business and the most appropriate strategies to ensure its long-term economic sustainability will be determined.

Finally, the social and environmental impact of the project will be analyzed, considering not only the ecological benefits of the powder shampoo, but also its contribution to the development of responsible consumption practices and its potential to generate employment in sectors related to the production and marketing of sustainable products.

This paper aims to provide a comprehensive and well-founded guide for the creation of a powder shampoo venture in Spain, considering both economic and commercial factors as well as environmental and social aspects.



It is hoped that this study will serve as a valuable reference for entrepreneurs interested in developing sustainable businesses aligned with global trends of responsible consumption.

2: Introduction

2.1: Company Description

Our company emerges as a pioneering force in the haircare industry, dedicated to crafting high-quality, eco-friendly, and innovative solutions. The vision is to redefine the way people care for their hair, merging sustainability with effectiveness.

Our company is driven by a clear mission: to create a sustainable alternative to traditional liquid shampoos without compromising performance. Our guiding values of innovation, sustainability, and consumer well-being will help us approach the desired product development and a positive market positioning.

The core of our innovation lies in a powder-based shampoo that addresses key consumer concerns, such as environmental impact, ingredient transparency, and haircare efficacy (Davda, 2024).

Unlike traditional shampoos, which require water as a base, our powder formula eliminates unnecessary water usage in production, leading to a more concentrated and lightweight product. This innovation reduces packaging waste, transportation emissions, and the environmental footprint of daily haircare routines.

Furthermore, the product offers customization options, allowing consumers to choose formulations tailored to specific hair concerns, including moisture retention, scalp sensitivity, and frizz control (PricewaterhouseCoopers, 2024).



By integrating botanical extracts and natural surfactants such as sodium cocoyl isethionate, the shampoo delivers an effective cleansing experience while ensuring compatibility with eco-conscious lifestyles (Lesielle, 2025).

The introduction of powder-based shampoo aligns with recent consumer trends, where 85% of global shoppers are changing their buying habits due to climate change, and 46% prefer sustainable products (PricewaterhouseCoopers, 2024).

As an innovative solution as a company, our solution embraces the current change towards ethical consumerism leading the sustainable beauty movement.

Our messaging will be robust and sustainable, both in functionality of the product and the process to create the product as well. The product will also outperform comparable solutions on all metrics, leading a superior user experience, which will be imperative to ensure customer trust and ultimately customer loyalty.

This will help us create a strong brand image that aligns with the beliefs and needs of our target audience, which is a small part of larger marketplace of environmentally friendly consumers. We foresee expanding into other European markets with a higher demand for sustainable personal care products outside of Spain once we validate our hypothesis related to the trends and preferences of our consumers.

Moreover, we follow a zero-waste business model, making all our production, packaging, and distribution eco-friendly. Whether it's about finding biodegradable ingredients or using minimal, recyclable packaging, across the board, we believe we are raising the standard of sustainability in the haircare category.

2.2: Shampoo Creation Process

Our powder-based shampoo is created by carefully balancing scientific research with buyer requests. Typical liquid shampoos are composed of near entirely water, surfactants, conditioning agents, and fragrances. But our powder shampoo cuts out the water, resulting in a powerful and travel friendly shampoo. (The New Plastics Economy, 2016)

The shampoo is formulated with natural surfactants that gently cleanse the scalp and preserve moisture. Richness of botanical extracts and essential oils support scalp and hair health, without artificial chasers.

Cost Savings: One of the key benefits of using our shampoo is the reduction of environmental waste. Assuming traditional shampoos, packaging accounts for about 26% of the total volume of plastics utilized worldwide, and just 32% of plastic containers are re-sorted efficiently, within recycling systems (The New Plastics Economy, 2016).

Instead, we will use biodegradable materials as packaging, which serves as a healthier replacement that causes less harm to the natural earth. The result is extended shelf life, lower transportation costs, and a drastically reduced carbon footprint by removing water from the formulation. The removal of water also makes the product more transportable, appealing to modern consumers' desires for convenience and sustainability.

2.3: Shampoo Industry

The shampoo industry is a dynamic and competitive market that caters to a wide range of consumer preferences. As one of the most essential and frequently purchased personal care products, shampoos represent a substantial segment within the global cosmetics industry.

The shampoo market size in Spain is projected to reach €1.24 billion in 2025, experiencing steady growth at an annual rate of 1.97% between 2025 and 2030, potentially reaching a market volume of €1.51 billion by 2030. This growth trajectory suggests a steady increase in the shampoo market size as well, given that shampoo is a key component of the hair care category (Statista, 2024).

Spain holds a significant position in the European shampoo market, ranking second with a 20.16% market share in 2023, but it is important to consider that this share fell by 2.57% from the prior year (ReportLinker, 2023).

The shift towards sustainability has significantly influenced purchasing behavior, with consumers now prioritizing products that align with ethical production methods, biodegradable packaging, and environmentally responsible ingredients.

Consequently, the industry is evolving to meet these demands, with manufacturers investing in research and development to create innovative alternatives that minimize ecological impact without compromising efficacy.

The rise of conscious consumerism has driven the growth of sulfate-free, silicone-free, and solid shampoo formulations, paving the way for innovative alternatives such as powder-based shampoos (Borja et al., 2022).

These formulations have gained traction as they offer gentler cleansing solutions while eliminating potentially harmful chemicals that have been linked to scalp irritation and long-term hair damage. Moreover, eco-friendly attributes such as water conservation and reduced carbon footprints have propelled the demand for these innovative formulations.

Powder-based shampoos are gaining popularity as they address multiple sustainability concerns, including the excessive use of plastic packaging and high-water content found in traditional liquid shampoos. (Blair, 2024).

By eliminating unnecessary fillers and packaging materials, these alternatives provide an efficient and environmentally friendly approach to haircare, resonating with consumers who seek convenience alongside sustainable practices. Spain's personal care industry is witnessing a surge in demand for sustainable beauty solutions.

This demand is largely fueled by heightened awareness of environmental issues, increased regulatory scrutiny on harmful chemicals, and a growing inclination toward holistic wellness (CESIF, 2024).

European Union regulations have played a crucial role in shaping the Spanish beauty market by enforcing strict guidelines on product composition, sustainability claims, and responsible sourcing of raw materials.

Spain follows the EU's Regulation (EC) No 1223/2009 which regulates cosmetics and guarantees their compliance and safety in the EU market (OMC Medical, 2024).

This regulation requires:

- A complete product composition, including all raw materials and substances used in manufacturing.
- Safety assessments for all ingredients, with toxicological profiles for new or potentially hazardous components
- Preparation of a Cosmetic Product Safety Report (CPSR) containing detailed information about the product and its ingredients

Additionally, consumers are becoming more discerning about the ingredients used in their personal care products, favoring natural, organic, and cruelty-free formulations that align with ethical and environmental values. As a result, major beauty brands and emerging startups are adapting their strategies to cater to this evolving market landscape (PricewaterhouseCoopers, 2024).

The expansion of the organic and natural beauty segment in Spain is not only reflected in the increased availability of eco-friendly shampoo options but also in broader industry trends, such as sustainable packaging initiatives, refillable product systems, and transparency in ingredient sourcing. This transformation signifies a long-term shift in consumer expectations, positioning sustainability as a critical driver of innovation and competition in the Spanish haircare sector (CESIF, 2024).

2.4: Why Spain?

Spain presents a compelling opportunity for the introduction of an innovative and sustainable powder-based shampoo due to several interconnected factors. First, Spain's beauty and personal care market has demonstrated consistent growth, driven by evolving consumer habits and an increasing emphasis on sustainable living.

Spanish consumers are becoming more environmentally conscious, seeking out products that align with their values of ethical sourcing, minimal environmental impact, and waste reduction.

As a result, the demand for sustainable alternatives, such as sulfate-free, silicone-free, and plastic-free shampoos, has significantly increased, making Spain a prime candidate for the introduction of an eco-friendly haircare solution.

Beyond consumer behavior, Spain's regulatory framework supports green initiatives, aligning with broader European Union mandates that emphasize sustainability.

The EU's Circular Economy Action Plan aims to minimize plastic waste, promote recyclable packaging, and incentivize sustainable business practices.

Spain has taken a proactive stance in this regard, implementing stricter regulations on single-use plastics, and providing financial incentives for companies that invest in sustainable product development (Ellen MacArthur Foundation, 2024).

This regulatory environment ensures that eco-friendly businesses have the necessary support to grow while fostering consumer trust in green product claims. Spain's geographical location further reinforces its viability as a market entry point

As a specific gateway to both the European and Latin American markets, Spain is an ideal location for companies who want to expand beyond their own borders. Furthermore, Europe vast retail and e-commerce networks make it easy for new products to be distributed, enabling brands to build a strong presence across both digital and physical sales channels (Observatorio de Complejidad Económica, 2024).

Moreover, Spain being on the map of tourism enhances the market opportunity since tourists are always on the lookout for cleaner locally produced products which leads to more brand exposure and thus more sales. It is anticipated that the number of visitors will continue to rise over the record figures set last year. (Sur in English, 2025).

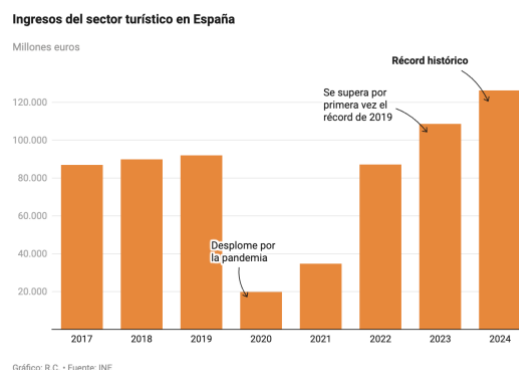


Figure 1

In addition, Spain's haircare sector has a high degree of personalization, as consumers look for targeted products designed for their unique hair type and requirements. This trend is perfectly in line with powder-based shampoos; the formulas are the ultimate customizable product to help with a variety of hair issues from moisture retention to scalp sensitivity to volume enhancement.

This is essential because in an ever-growing marketplace the Spanish consumer is bombarded with choices, therefore, it is paramount to differentiate the product, favoring consumers with a solution that not only has environmental benefits but also meets their personal care needs (Bonafide Research, 2023).

The convergence of increasing demand for sustainable options from consumers in Spain with regulatory support for environmental initiatives, ideally situated geography, and a well-established beauty market all seals the deal that Spain is where this new type of innovative powder-based shampoo should start.

By leveraging these market strengths and mitigating potential pain points, brands can bring a disruptive and sustainable alternative to traditional haircare, raising the bar for sustainability in the Spanish beauty market (European Commission, 2024).

Hence, the launch of our powder-based shampoo in Spain seems lucrative for several reasons. There's a market that is expanding for organic and natural personal care products in the country, shifting consumer preference toward sustainability, and a thriving beauty industry infrastructure.

In addition, Spain is also located in a location where the access to other European and non-European countries can be extended more easily. By launching a product related to Spanish consumer preferences, our company will benefit from a rising demand for sustainable consumer goods focused on the beauty sector.

This is why our company is on a mission to revolutionize haircare in Spain by providing haircare that is of high quality, modern, and because it is the new standard of responsible beauty.

2.5: Advantages and Disadvantages of the Spanish Market

In Spain, the demand for sustainable beauty products is increasing, driven by regulatory frameworks, consumer awareness, and an evolving market landscape that prioritizes ethical consumption. The shampoo market, valued at billions of euros, presents a promising opportunity for the introduction of a novel and eco-conscious product.

Spain presents both opportunities and challenges for launching a powder-based shampoo. The Spanish beauty and personal care industry is experiencing steady growth, fortified by increasing consumer awareness of sustainable and eco-friendly products (Statista, 2024).

This shift has been encouraged by regulatory measures that promote sustainability, along with changing consumer preferences that favor ethical and natural alternatives in their beauty routines. Moreover, Spain benefits from a well-developed distribution network, including both physical retail outlets and robust e-commerce platforms, allowing brands to effectively reach a broad audience.

The tourism industry also plays a role in market expansion, as international visitors often seek locally available premium and sustainable beauty products, further enhancing market potential.

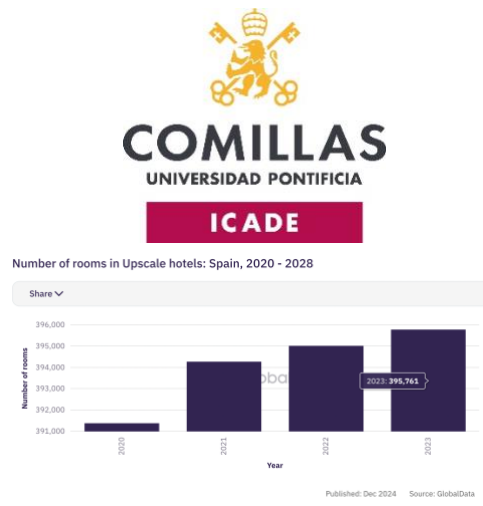


Figure 2

The advantages of the Spanish market extend to its regulatory environment, which encourages the development of green products. European Union sustainability policies, along with Spain's own environmental regulations, incentivize brands to create formulations that align with eco-conscious values (European Commission, 2024).

Furthermore, the country has a well-established beauty culture, where consumers exhibit high brand loyalty and are often willing to explore premium alternatives if they align with personal care and ethical standards.

Consumer studies indicate that the Spanish market is increasingly receptive to innovative haircare solutions, including those that prioritize sustainability, personalization, and efficacy. The preference for organic ingredients and reduced plastic consumption further reinforces the suitability of introducing a powder-based shampoo into the market (PricewaterhouseCoopers, 2024).

Despite these advantages, challenges persist in establishing a new product within an already competitive market. One of the primary obstacles is the strong presence of international brands that dominate the beauty sector, making it difficult for emerging companies to establish visibility.

Additionally, consumer education is still an obstacle, as powder-based shampoos are relatively new to many customers (STANPA, 2024). That is why our application will be mixing the powder with water at the stage of refilling the bottles to avoid these obstacles.

Overcoming skepticism regarding the effectiveness and usability of powdered formulations will require targeted marketing campaigns, influencer partnerships, and trial-based promotional strategies. Pricing sensitivity is another factor to consider; while sustainability-driven consumers are willing to pay a premium for eco-friendly alternatives, the majority of Spanish consumers remain price-conscious, requiring a balance between affordability and sustainability to attract a broader customer base (PricewaterhouseCoopers, 2024).

By addressing these challenges through strategic marketing, and pricing adjustments, powder-based shampoos can effectively penetrate the Spanish market and capitalize on its growing demand for innovative haircare solutions.

Spain presents both opportunities and challenges for launching a powder-based shampoo. The advantages include increasing consumer awareness of eco-friendly products, supportive government policies on sustainability, and the overall expansion of the natural cosmetics industry.

However, challenges include high competition from established brands, potential resistance to new product formats, and price sensitivity among consumers. Addressing these factors through targeted marketing and market segmentation will be critical for market success.

As per (CESIF, 2024, p.1), ‘Spain ranks as the 5th European market in cosmetics and perfumery, with a turnover of over 8200 million euros per year’.

In Spain, demand for sustainable products has expanded significantly in recent years, thanks to greater environmental awareness and stricter regulations on single use plastic. But sustainable options are still few and far between and eco-friendly brands have not helped mass adoption with their exorbitant price tags.

We need a new and easy solution that gives consumers the option to use more eco-friendly product alternatives that do not come at too high of a price.

It is also an opportunity for the Spanish market, as (STANPA, 2023, p.10) points out:

“In 2022, the Spanish cosmetics industry obtained a turnover of 9.2 billion euros, which represented an increase of 11.3% compared to the previous year. But the cosmetics industry has a huge environmental footprint”.

Consumer resistance to change is yet another important factor. Although environmental considerations are becoming increasingly important for consumers when it comes to purchasing decisions, a considerable portion of customers still are attracted towards established formats of product, particularly liquid shampoo formulations that are both simple to operate and prevalent in stores.

This type of product may also face some barriers to implementation of powder shampoo, such as a lack of information about the benefits and prejudices regarding the effectiveness of the product (Blair, 2024).

3: Aims and Objectives

3.1: Problem definition

This study aims to evaluate the viability of a business for the production and sale of powdered shampoo in Spain. The beauty industry has desperately needed a green and sustainable revolution because it is a huge contributor to environmental pollution in the world through the excess use of plastic packaging and synthetic chemicals used in the production of personal care and hygiene products.

Solid shampoos, which make a smaller amount of plastic waste that is usually sent to the landfills and oceans, are the second most popular formulation after liquid shampoo. Also, many traditional shampoos are made with sulphates, parabens and silicones, substances that can be harmful to the environment as well as the consumer's health.

How to solve this issue and create ecological and sustainable alternatives with less environmental impact while preserving the product efficacy?

This study is intended as a response to the necessity to create an innovative business model that is a guarantee of feasibly and sustainably producing and marketing powder shampoo in Spain.

This research aims at understanding the existing barriers in the way of the application of these products into marketplace and to indicate methods to promote their acceptance amongst the consumers.

It will also review key success factors: the economic viability of the project, economic, impact and differentiation strategies that will enable to position the project as an attractive alternative in the cosmetics industry.

This analysis aims to show that it is possible to create a venture that is not only economically viable, but also has an impact on decreasing the environmental damage caused by the traditional cosmetics market.

A successful business that upholds the values of responsible consumption and sustainable practices can be established by utilizing sustainable production processes, marketing strategies, and an educational approach for efficiency of new formulas.

3.2: Research questions

General question

How feasible is a business model based on the production and B2B commercialization of powder shampoo for the hospitality sector in Spain?

Specific questions

- Which are the sustainability certifications, operational requirements or product standards Spanish hotels look for while choosing the powder shampoo?
- What are the best strategies to market, position and differentiate to enter the Spanish hotel market with an eco-friendly product?
- What are the key drivers that make hotel decision makers think about changing from conventional shampoos into powder shampoos?

3.3: Research objectives

General objective

To evaluate the viability of business project on powder shampoo production and B2B commercialization into Spanish hospitality sector, considering market factors, hotel client preferences, barriers into adoption and economic viability.

Specific Objectives

- To analyze current trends in Spain regarding the demand for ecological and sustainable cosmetic products within the hospitality industry.
- To identify the main barriers faced by hotels in adapting eco-friendly shampoo as part of their guest offerings.

- To define effective marketing and differentiation strategies for the positioning of powder shampoo in the hotel sector.

To ensure a comprehensive and accurate analysis of the viability of the powder shampoo in the Spain hospitality market, a research methodology has been designed based on a mixed approach, combining qualitative and quantitative techniques. This approach will provide a holistic view of the hospitality market, consumer preferences, barriers to product adoption and key factors for commercial integration into B2B hotel channels.

3.4: Methodology

In this study, the research method is exploratory-descriptive. This exploratory phase aims to assimilate the situation of the sustainable cosmetics industry and market trends in Spain.

The descriptive part will describe the market, the consumption habits and the variables that contribute to the broad acceptance of ecological products such as the powder shampoo. It will help us to identify the opportunities as well as challenges in the sector.

3.5: Research techniques

Documentary review

This approach consists of a systematic review of secondary data from academic publications, industry reporting's, government documentations and regulatory policies.

This will focus on past research related to consumer behavior in the beauty and personal care industry.

These documents will uncover broader trends and preferences, including an emphasis on or preference for sustainability and organic ingredients. In addition, studies discussing the environmental consequences of traditional cosmetic products will be examined to justify the need for more sustainable options. Lastly, EU and national-level environmental regulations will also be evaluated and aligned with relevant sustainability standards while ensuring compliance with regulations.

4: Market research

4.1: Market observation

Market landscape observation will also be conducted by seeing if other similar products (like solid products, powder-based products) are available in the market and how well they are performing in terms of sales.

This will entail examining their availability across sales channels: retail stores, e-commerce platforms or B2B. We also will review the different brands, prices, and ways of engaging consumers, for example: influencers, packaging, and claims.

Watching how these products are mentally positioned in the consumer minds and how firms create competitive differentiation to identify opportunities and gaps. It also seeks to assess consumer receptiveness, barriers to entry, and the efficacy of current promotional strategies from established and emerging brands.

Through the use of these research techniques, we will be able to create a strong market entry strategy for a new sustainable powder shampoo, with appropriate context and real-world applications.

4.2: Market Overview

The hotel and resorts industry in Spain is experiencing a very hard trend towards sustainable and ecological guest amenities. Hotels at all levels are decreasing the use on single-use plastics, both in response to consumer preferences and legal requirements. In 2024 a survey made by a Spanish hotel group, travelers ranked reduction of plastic as one of the top sustainable practices they care about. In the other side, hotels are responding by replacing little plastic bottles of shampoo by refillable dispensers and biodegradable packaging (Hosteltur, 2024).

A growing number of luxury hotels are offering this type of dispensers instead of the one-time use plastic bottles. European and local legislation also support this movement. A clear example is the Balearic Islands who have even pledged to ban single-use plastics in its 5-star resorts (Bonafide Research, 2025).

In addition to new packaging, the formats of the products are also changing. Solid and powder shampoos are increasingly being considered as a practical solution to reduce waste and plastic.

These are the formats that hotels have seen to fit better into a broader zero-waste movement in the hospitality sector. Some international suppliers sell shampoo in powder format or film-encapsulated drops that are activated with water, without the need of plastic bottle needed (Hasek, G, 2022).

Above all, hotel operators insist that any amenity must deliver a premium experience, this means a pleasant fragrance, high-performance formula, and an attractive presentation. For instance, many five-star hotels partner with renowned cosmetic houses because of their elegant scents and proven quality.

An article written by (Redacción, 2025) highlights how Molton Brown, a committed brand with sustainability and responsible luxury has become popular in Spanish 5-star hotels thanks to their ability of knowing how to combine “elegance and efficacy” in their formulations and providing a unique sensorial experience including rich aromas and exquisite textures.

The hair care segment in Spain shows a significant recovery and strong growth after the initial impact of the pandemic in 2020. In 2021 and 2022 the Spanish hair care market grew by around 7% per year, reaching and even slightly exceeding pre-pandemic levels (STANPA, 2023).

Hair care represents approximately 18% of the cosmetic consumption in the country, according to STANPA (2023) this equates to a value of around 1.6-1.7 billion euros in 2022 (within a national fragrances and cosmetics market of 9.25 billion euros). As a background, the following is stated:

“In the same direction, the trade balance remains positive, as has been the case since 2006, reaching 1.9 billion euros in 2022. The main product category in terms of exports continues to be fragrances, but the rest of them have also grown over the last 12 months and have done so with an increasing balance between the EU+EFTA, where 49% of total exports go, and the rest of the world” (p. 5).

The factors driving the demand for a powder shampoo are entirely linked to environmental awareness and sustainable consumption trends. Concerns about reducing plastic waste and water wastage have motivated many consumers to look for alternatives to traditional packaged shampoo. Only 25% of cosmetic plastics are recycled in Spain, so zero waste formats are seen as a solution to reduce pollution (Lush, 2022).

In this sense, the pandemic also reinforced values of self-care and environmental responsibility, which has contributed to the growing love affair with solid hair care formats (Lario, 2021). In addition to the ecological benefit, consumers value other practical advantages: they are long-lasting, economical, and easy to carry. As a benchmark we can analyze and see what is happening with one of our future competitors, the solid shampoo.

According to (Lario, 2021) many users also perceive that solid shampoos contain cleaner formulations, for example: no sulphates, silicones or parabens, and more natural ingredients, which makes them attractive from a hair health point of view.

Similarly, (Lario, 2021) states that there is growth within the market, although the Spanish market for specific solid shampoo is still a fraction of the total shampoos, its rate of expansion is high. For example, the interest in these products is reflected in a 50% increase in online searches for terms related to solid soap and solid shampoo in the last analyzed year.

In other European markets, it has been observed how the market share of solid shampoos practically doubled in a few years; in France, for example, this segment gained 2.3 percentage points of share between 2019 and 2021, reaching more than 21% of the shampoo market. In this line, (Blair, 2024, p.3) states that:

"In general terms, over the past year there has been approximately a 50% increase in searches for both solid soaps (51%) and solid shampoos (50%)." This data is proof of the increased interest in these products. But we can go a little further. Within this range of products, there are some variations of specific Google queries that, for some reason, have garnered greater interest in the past 12 months.

A similar pattern of accelerated national growth from 2020-2024 is followed in Spain. Indeed, international consultancy firms forecast that the "zero waste" shampoo segment will expand worldwide with annual growth rates of around 6 to 7% over the course of the decade (Jiménez, F, 2024). This suggests a structural shift in consumer preferences toward more sustainable goods.

4.3: Shampoo imports in Spain

Only in 2022, Spain imported approximately 172 million dollars in shampoo preparations. In this regard, the (OCE, 2024) determined that the main supplying countries that year were France with about \$62.7M, followed by Italy with \$26.4M, the Netherlands with \$22.7M, Germany with \$12.5M, and Poland with \$7.3M.

These figures reflect that a large part of the shampoos marketed in the Spanish market come from multinationals with production centers in other European countries. France and Italy, leaders in the cosmetics industry, have recently seen an increase in their shampoo shipments to Spain. Between 2021 and 2022 alone, imports from France grew by 17.4 million USD and from the Netherlands by 13.2 million.

With these figures, the impact on the local market of these high imports is twofold: in one hand, it ensures a wide availability of brands and, above all, international varieties for domestic manufacturers. It is important to note that large foreign companies such as L'Oréal, Unilever, Henkel, and Procter & Gamble dominate significant segments of the hair care sector in Spain through imported products or those manufactured in local plants of their subsidiaries.

On the other hand, Spain has a significant cosmetic industrial structure that also exports its products abroad. In the case of shampoos, Spain ranks among the top 10 global exporters, which indicates the presence of strong local manufacturers (OES, 2024).

In this same path, (Jiménez, F, 2024) states that the import of shampoos from abroad, mainly from its European partners, has a large impact on the Spanish economy. This dynamic of high imports, but also strong national production, suggests that Spanish companies have had to specialize and differentiate themselves. By quality, innovation, or ecological niches to coexist with large international brands.

The rise of solid shampoo has provided an opportunity for small artisanal producers and local brands focused on sustainability to gain ground in the domestic market, competing in an emerging niche where the ecological added value allows them to face conventional imported products.

4.4: Competitive Landscape

Spain is characterized by the coexistence of large international brands with independent national brands, all competing for an expanding segment. In recent years (2020-2024), multinational cosmetics companies have incorporated solid shampoos into their portfolios, validating the trend.

For example, L'Oréal launched several solid shampoo references in Spain under its popular brand Garnier Fructis, distributing them in supermarkets and perfumeries at affordable prices (Clark, 2022).

One of the companies that stands out the most in this market is Unilever, which has done the same internationally with solid shampoos and conditioners like Love Beauty and Planet (Gladieux, 2020), and Henkel introduced solid formats through natural brands like N.A.E: Naturale Antica Erboristeria (Henkel, 2020).

Another pioneering multinational is Lush Cosmetics, which for decades has centered its identity on solid and packaging-free cosmetics: its famous solid shampoo, invented in 1987, has been a cult product that "has been revolutionizing the world of cosmetics for 35 years" (Lush, 2022, p. 4).

Lush, also present in Spain, set a precedent that is now being followed by both large and small competitors. Specialized chains like The Body Shop, Yves Rocher, or Kiehl's have also added shampoo bars to their catalogs, catering to the demand of eco-conscious customers. Alongside these global players, there is a surge of local brands and ventures that have found a profitable niche market in solid shampoo.

Some of the prominent Spanish brands in this sector include: Laboratorios Phergal, Freshly Cosmetics, Dalire, Valquer Laboratorios, Matarrania, Modesta Cassinello, Rulls, or artisanal projects like Inuit or Naturitas. Many of them were born with a natural and sustainable philosophy and have gained popularity by selling online or in eco-friendly stores. Regarding the marketing strategy, it varies by company:

- Large brands often rely on their traditional distribution channels as supermarkets, hypermarkets, and pharmacies to mass-market shampoo. For example, Garnier advertises its Original Remedies shampoos by highlighting that "we can easily buy it at the supermarket" (Teixidó, 2023).
- These companies leverage their brand recognition and sales networks to introduce the new format as an alternative within their well-known lines, often placing the product next to the equivalent liquid shampoo on the shelf. In communication, they emphasize messages of corporate sustainability to align it with their image. Additionally, multinationals often offer competitive prices and promotions, reducing trial barriers for the general consumer.
- Independent and artisanal brands tend to focus on online channels, eco-friendly stores, and direct sales to reach an initially more conscious audience.

- E-commerce platforms, social media, and sustainable product fairs have been key in spreading these shampoos. Many started in small workshops or local laboratories and have grown thanks to word of mouth and positive reviews.
- Their marketing highlights the story behind the brand, the careful craftsmanship, and values such as fair trade or vegan. Some, as they gained traction, have managed to enter specialized stores.

This reflects that other formats different from the traditional liquid shampoo ceased to be a rarity and can become an established segment. The competition, therefore, focuses on who offers the best combination of effectiveness, user experience, and ecological credentials.

It should be added that the retailers themselves have detected the opportunity: some chains have launched private label products or exclusive distribution agreements.

For example, top-tier Spanish supermarkets introduced solid shampoos on their shelves between 2021-2023, either with commercial brands like Garnier at Carrefour and Mercadona or through their own personal care brands. This further increases the competitiveness in price and reach of the product (Teixidó et al., 2023).

4.5: Differentiation strategies

A powder-based shampoo can take out an important place in the sustainable haircare landscape by varying from solid bar shampoos in several important ways. First, powder shampoos have by far greater convenience and portability as they may be good for travel and on-the-go-friendly without the need for extra storage and portability solutions associated with solid bars which become messy when wet.

Moreover, powder formulations can bring a much bigger customization. In contrast to fixed-form solid bars, powder-based products allow direct incorporation of a powdered raw material with water or complementary ingredients, enabling consumers to customize the consistency and function to address their unique hair concerns, from moisture retention and volume to scalp sensitivity.

These powder shampoos stand out due to their versatility and can be applied as a ready-made solution or, in small quantities, as a dry shampoo.

Second, powder shampoos are packaged in a way that promotes innovative, eco-friendly design. Whether in the form of reusable jars or compostable pouches, brands can minimize plastic waste while simultaneously improving product aesthetics and shelf appeal, helping them cultivate a unique identity that aligns themselves with the modern values of minimalism and sustainability.

And finally, powder format of a brand creates a perception of innovation in the natural cosmetics industry. And by invoking a proposition of waterless formulation, reduced carbon footprint and the purity of active ingredients, companies can connect to the values most consumers hold about sustainable beauty.

That unique distinction creates a path for powder-based shampoos beyond the foundational work of solid bars and into a next-generation sustainable personal care solution.

5: External Analysis

5.1: Porter Forces

It is fiercely competitive within the solid shampoo market, with companies of all shapes and sizes competing for a share of consumer preference. For new businesses, it can create an opportunity if they can differentiate themselves with smart sustainable products.

Bargaining power of suppliers

Moderate: For solid shampoos, many natural ingredient suppliers like plant-based surfactants, essential oils, natural butters. Nonetheless, there are certain key ingredients, such as mild surfactants based on coconut or betaines, which can only be sourced from a handful of suppliers globally, thus allowing them to dictate terms (Lesielle, 2025).

Additionally, as more people become interested in using organic ingredients, there may be shortages and higher prices as well. Larger brands negotiate on price due to their purchasing volume but small manufacturers will take the price available on the market.

Bargaining power of buyers

High: When it comes to solid shampoos, customers have plenty of choices and can effortlessly switch from one brand to another if a product underperforms. Furthermore, consumers are more educated than ever, and hungry for details on ingredients and their manufacturing processes.

Manufacturers respond with pressure from retailers and supermarkets to lower prices and improve sales conditions, putting even more pressure on producers' margins.

Threat of new entrants

Low, due to the fact that the market is growing but would require to comply with European cosmetic regulations, require investment in effective formulations, and compete with established brands.

In the other hand, online sales can help new entrepreneurs bring their own solid shampoos to market without building the kind of big infrastructure you need to take a big luxury brand. New entrants can carve their niche through differentiation based on ingredients, eco-friendly packaging, and certifications (Bennett, 2024).

Competition among existing players

High: There are many competing brands available, in one hand some large multination programs from brands like L'Oréal, Unilever, Garnier, and in the other hand some more specialized programs from brands like Lush and The Body Shop that represent all the small artisanal manufacturers.

The competition emphasizes sustainability, ingredient quality, and product effectiveness. Solid shampoos mark the latest product line to be crushed by the weight of market forces and now even supermarkets have begun introducing their own ranges of solid shampoos, increasing the competitive landscape (Thomas, 2025).

Threat of substitute products

High: Liquid shampoos are still the most prevalent on the market, and for consumers a readily available and familiar alternative. Additionally, other green formats, such as solid shampoos, refillable shampoos, or two in one bar (shampoo + conditioner), would work as substitutes.

The absence of experience of solid shampoos as well as the perception that they are much less practical may however prompt some consumers to revert to your more traditional item.

5.2: Pestel Analysis

Political, environmental, and legal factors are favoring the growth of the solid shampoo market, while economic and social aspects are driving the demand for eco-friendly products.

Political

The European Union and the Spanish administration have prioritized sustainability as a core policy goal, developing programs to reduce plastic waste and implement the circular economy. To push towards eco-friendly packaging, the trend of moving away from the natural formulation is aided by regulations such as Spain's Law 7/2022 on waste and contaminated soils for a circular economy and the EU Regulation (EC) No. 1223/2009 on cosmetic products, which impose penalties on non-reusable plastic and push towards the search for low-impact alternatives (OMC Medical, 2024).

Economical

In Spain, the cosmetic market is expected to grow between 9 and 10% annually due to the increased interest in personal care, wellness, and sustainability (Bonafide Research, 2023).

This optimistic perspective is a combination of a post-pandemic rebound and a more general trend among consumers toward health-oriented and sustainable items. Maturing product categories such as natural cosmetics, solid and powder-based shampoos, and skincare treatments further boost market dynamism and diversification.

The supply chain for botanical extracts and essential oils as well as biodegradable surfactants that form the base for a sustainable formulation are limited and price sensitive, especially when sourced from certified sustainable or organic suppliers. Such costs immediately influence production costs, which in turn influences pricing strategies.

Social

The demand for sustainable care products is increasingly being driven by younger generations, particularly Millennials and Gen Z. For them, greater ecological and social awareness has driven interest in vegan, cruelty-free and organic cosmetics, and the emergence of zero-waste retail formats like bulk stores and refill stations. For instance, market studies show that more and more consumers are willing to pay a higher price for products that speak to their environmental and ethical values, indicating a deepening consumer behavior shift towards conscious consumption.

Many barriers still stand in the way of the broader use of sustainable haircare products, such as shampoos with a solid or powder formulation. These factors involve the lack of consumer knowledge, doubt about the workability of the product itself, and continued preference for traditional liquid formats. Also, the retail industry's obsession with low-cost goods creates friction for new eco-conscious brands, which in many cases, will need to sand its sustainability standards down to meet pricing considerations.

Technological

The cosmetics industry is increasingly adopting technology solutions as a powerful force for change. Natural and biodegradable surfactants are emerging as a new wave of green raw materials in line with the green chemistry approach.

They offer equivalent performance standards while having a reduced ecological footprint during their life cycle. Innovations in materials have also resulted in compostable packaging options and reusable container systems that can help to promote the principles of a circular economy and reduce dependence on single-use plastics.

Tools like AI-driven personalization and supply chain analytics, are being used to radically change how brands relate to consumers and map product distribution. The use of smart manufacturing technologies including energy-efficient production lines, waste-tracking systems and blockchain-enabled ingredient traceability are creating transparency and cutting the carbon footprint of operations.

Environmental

A powder-based shampoo is an ideal alternative to traditional shampoo that raises a less costly CO2 footprint for personal care products whilst also supporting our war against plastic waste. Plus, its lightweight, waterless formulation helps reduce the volume of packaging as well as fuel consumption during distribution, resulting in a reduced overall carbon footprint.

Another positive fact is the regulation within the EU, specifically on the use of microplastics in cosmetic products, encouraging adoption of solid/powder formats that, in most cases, do not contain microplastics in their formulations.

The environmental benefits of powder shampoos depend largely on the sustainability of their ingredients. Despite these advantages, ingredients like palm and coconut oils, which are often used for their surfactant properties, can have severe environmental impacts if they are not harvested sustainably.

Deforestation, biodiversity loss and carbon emissions have been linked to unsustainable cultivation practices. If we want to have a net ecological benefit of efficiency in packaging and transport, it's crucial to have reliable suppliers certified by credible sustainability standards. With this reasoning, supply chain transparency and legislative certifications become requirements in order to produce truly eco-friendly formulations.

Legal

Regulation (EC) 1223/2009 establishes strict standards for cosmetics in the Europe. This regulation provides guidelines about the cosmetic product safety, labeling, and the use of ingredients. The creation of this rule guarantees that only safe cosmetics will be sold in the EU, helping to improve consumer safety and standardize industry practices.

Alongside this legal framework, ecological certifications like ECOCERT, COSMOS, and the EU labels are essential for strengthening consumer trust. These standards offer independent verification of environmental and ethical claims, which helps with transparency in addition to helping consumers identify products that are aligned with their values.

Beyond product-specific rules, wider environmental legislation is shaping packaging and production practices in the cosmetics industry. Spain's Law 7/2022 on waste and contaminated soils drives forward the principles of a circular economy by limiting and taxing the application of non-reusable plastic packaging. Such measures incentivize manufacturers to minimize out their products entirely, opting instead for sustainable.

5.3: Life Cycle Assessment

Stage: Raw Materials

Liquid shampoo: Contains up to 80% water, making it a heavier formulation type. Also, requires chemical preservatives to make the composition microbiologically stable. Commonly based on traditional ingredients such as sulfates and silicones, which are less biodegradable and have a larger environmental footprint.

Powder Shampoo: Utilizes concentrated, dry formulations, made with plant-based oils and natural, biodegradable surfactants for example: coconut oil. The waterless formula means it does not require synthetic preservatives which makes it environmentally safe and also increases shelf life.

Stage: Manufacturing

Liquid Shampoo: Needs high-energy processes like heating, emulsification, homogenization, and preservation. Operational costs and emissions increase due to desperate need of mass production facilities and controlled environments to stabilize the formula.

Powder Shampoo: Low temperature production process as well as low-energy blending and drying techniques. Minimal process complexity because it can be made in small batches, allowing local manufacturing, and decreasing reliance on massive infrastructure. Suitable for low-impact, non-plastic packaging systems.



Stage: Distribution

Liquid Shampoo: High-water-content products increase product weight and volume transportation costs, increasing emissions and fuel consumption. One-time-use plastic bottles also contribute to mass and plastic pollution.

Powder Shampoo: It is lightweight and compact, significantly reducing weight and space requirements which are translated in a decrease in freight costs and a decrease of transportation emissions by having more efficient logistics. Usually shipped on biodegradable or refillable packaging.

Stage: Usage

Liquid Shampoo: Due to the design of the bottles more product is used for each application and residual product loss happens when the product finishes because of bottle retention. They are often over-used due to inefficiencies, leading to more frequent replenishments.

Powder Shampoo: Concentrated, therefore offers more efficiency per gram. Reduce product waste and increase washes per unit. More accurately dispensed, encouraging sustainable consumption behavior.

Stage: End of Life

Liquid Shampoo: Typically bottled in unrecyclable plastic bottles that tend to not enter effective recycling streams. Low quality products with very short service life.

Powder Shampoo: Creates little post-consumer waste. Packaging is compostable, recyclable, or reusable, helping to power circular economy practices and massively decreasing landfill input.

6: Internal Analysis

6.1: SWOT Analysis

The “no waste” shampoo market presents key strengths, such as its alignment with sustainability and the growing demand for natural cosmetics. However, it faces weaknesses, such as the need to educate consumers about the powder format and its higher relative price.

Opportunities include the expansion of the organic sector and regulatory support for plastic-free products, while threats come from competition, fluctuations in raw material costs, and the risk of misinformation about ecological practices such as greenwashing.

Strengths

- Ecological products with a lower environmental impact.
- Increased demand for sustainable cosmetics.
- Reduction of plastic waste.
- Natural and biodegradable ingredients.
- Greater loyalty from environmentally conscious consumers.

Weaknesses

- Lack of familiarity of some consumers with the powder format.
- Need to educate about its use and benefits.
- Possible perception of less convenience compared to liquid shampoos.
- Generally higher price per unit.

Opportunities

- Sustainable market expansion and growth of ethical consumption.
- Government regulations that favor the elimination of plastic in packaging.
- Innovations in formulation and ecological packaging.
- Expansion of distribution channels: supermarkets, organic stores, pharmacies.
- Exports to international markets

Threats

- High competition with major brands introducing solid shampoos into their portfolios.
- Possibility of greenwashing by large companies, affecting the credibility of the segment.
- Dependence on natural raw materials that may be subject to price fluctuations.
- Stricter regulations can increase production costs.
- Resistance of traditional consumers to changing formats.
- Direct sales channels such as e-commerce and specialty stores facilitate the entry of new competitors.

6.2: Risk Analysis

Operational risks include potential disruptions in the natural ingredient supply chain and adapting to strict EU regulations. Financially, the market faces high start-up costs and difficulty competing on price with large manufacturers.

Regulatory risks can affect product composition and marketing, while market risks include increasing competition, consumer resistance, and misinformation about the true sustainability of products.

Operational risks:

- Difficulties in the supply chain of natural ingredients.
- Problems in the product formula that affect the quality or durability of the product.
- Risks in distribution and logistics due to the fragility of the powder product.
- Need to adapt the manufacturing process to strict regulations.

Financial risks:

- High initial production and certification costs.
- Variability in raw material costs.
- Difficulty in achieving economies of scale compared to large manufacturers.
- Dependence on differentiation strategies to justify a premium price.

Regulatory risks:

- Compliance with EU cosmetic regulations (EC Regulation 1223/2009).
- Restrictions on the use of certain ingredients for organic certifications.
- Regulations on labeling and sustainability claims.
- Possible implementation of new taxes or environmental regulations.

Market risk:

- Growing competition with major brand products.
- Barriers to adoption by consumers used to liquid shampoos.
- Fluctuations in demand due to changes in consumption trends.
- Greenwashing in the industry that can affect product perception.

7: Supply Chain

7.1: Sourcing and Procurement

Main ingredients

Powder shampoo formulations are based on a mix of gentle surfactant agents obtained from renewable sources like coconut and corn, vegetable butters, essential oils, natural clays, botanical extracts, and plant-derived scents.



These ingredients are chosen for compatibility with skin, biodegradability, and performance in waterless systems. It is free from sulfates, silicones, parabens, and petrochemical derivative ingredients, compliant with beauty and eco-friendly certification standards.

Sustainability

An important part of the sourcing process involves using plant-based and biodegradable raw materials that minimize environmental impact. To ensure compliance with ethical sourcing and supply chain processes that protect against deforestation, oils and butters are preferentially sourced from certified sustainable companies, for example: RSPO-certified palm oil producers.

COSMOS or ECOCERT guidelines provide in-depth data for each substance, tracing back each ingredient on the basis of its toxic value, biodegradability, traceability, ethical harvesting methods etc.

Sources of supply

Procurement operations are handled through a combination of direct sourcing from regional cooperatives and imports from specialist vendors operating in strong integrity markets. With products displayed in the natural or organic category, suppliers must provide valid organic certifications, COAs (Certificates of Analysis), and ISO certifications.

Strategically partner with vendors who demonstrate a commitment to quality, environmental performance and transparency up and down their value chain. They are subject to regular supplier audits and performance evaluations to ensure compliance with brand and regulatory requirements.

7.2: Production and packaging process

Production Process

Powder shampoo is made with an eco-friendly, waterless production system that improves product stability. These ingredients are mixed at a cold temperature before pressing and extruding into a homogenous base then controlled grinding creates the desired powder consistence.

The removal of water minimizes the risk of microbial contamination and eliminates the need for synthetic preservatives. It also boosts shelf-life and increases supply chain flexibility, with waterless goods being less reactive to temperature fluctuations and microbial control in storage and transport.

Quality Assurance

Rigorous quality control procedures are implemented throughout the manufacturing process. These comprise consistency testing of granule size, efficacy of active ingredient, and dermatological safety, among others. All products are validated in batches and microbial challenge testing may be included if relevant. Documentation should meet regulatory requirements in order to obtain the Regulation (EC) 1223/2009 for cosmetic products (Jiménez, D, 2024).

Packaging Strategy

For the packaging process we will use a minimal, reusable, and biodegradable container, adhering to circular economy guidelines. Most brands choose compostable cardboard, recycled paper wraps or reusable aluminum or glass containers, not even a single-use plastic to be seen. Packaging suppliers must be selected for their eco-design credentials, proximity to production plants, limitations of their design footprint emissions, and capacity to allow custom, low-impact branding.

7.3: Logistics and transportation

Powder shampoo has an operational and logistical advantage over transport of liquid shampoo that makes its transportation much more efficient overall than that of liquid shampoos, resulting in lower CO₂ emissions from transportation, manufacturing, and sustainability.

A major reason is its lower volume and weight because powder shampoo formulas are 100 percent waterless, they're also far more compact and lightweight than liquids, which contain 70–90% water. This enables many more units to be transported with less fuel consumption in fewer trips than separate shipments, as a result CO₂ emissions are being reduced. From a logistics perspective, powder shampoo increases the load density, thus making the shipment of a unit to market more economically efficient.

Furthermore, businesses in the eco-friendly cosmetics industry are adopting low-emission transportation models in their distribution methods. Various manufacturers are either investing in or collaborating with logistics providers that employ carbon-neutral shipping practices for example, through offset programs, and are integrating electric vehicles (EVs) and compressed natural gas fleets into delivery operations.

Not only do these initiatives lower the carbon footprint of last-mile delivery, but they also contribute to wider ESG objectives and compliance with tightening emissions regulations in the EU. So, powdered shampoo not only making its formulation and packaging more environmentally friendly, also helps keep the entire supply chain from production to point-of-sale more environmentally friendly.

7.4: Distribution and marketing

Powder shampoos can be sold through various distribution channels, each with its own marketing strategies:

- Physical stores: Supermarkets, pharmacies, eco-friendly stores, and cosmetics chains.
- E-commerce: Platforms like Amazon, online brand web page, and eco-friendly marketplaces make it easy to purchase without intermediaries.
- Bulk sales: Some businesses offer unpackaged solid shampoos so consumers can take them with them in their own containers, reducing waste.
- Collaborations with hotels and resorts: Creating a luxury customer experience and position the product as premium.
- Collaborations with spas hair salons: Great place for potential customers to test our product. Salons will get a percentage for every unit sold.

7.5: Marketing strategy

Emphasize ecological benefits (no plastics, natural ingredients), convenience (long-lasting product), and compatibility with different hair types by collaborating with environmentally concerned influencers who can inform the public about powder shampoo's definition, application, and benefits as a sustainable substitute for conventional products is a potent way to market a powder shampoo brand.

Influencers have the ability to produce genuine material that lowers the learning curve for new users, like how-to guides, before-and-after films, and first-person accounts. The company may increase exposure while establishing itself as creative and ecologically conscious by utilizing their reach and trust.

In order to give clients the opportunity to taste the shampoo in a everyday environment, the company can also host product testing events and giveaways in salons. These in-salon encounters might be framed as focus groups, in which participants share their opinions and offer comments, thereby enhancing the product and creating social proof. In addition to increasing word-of-mouth, this strategy fosters community and trust, two important factors in the uptake of a novel product format, such as powder shampoo.

7.6: Regulatory compliance

To sell a powder shampoo in Spain and the European Union, it is necessary to comply with strict safety and labeling regulations.

- European regulations: Regulation (EC) 1223/2009 regulates the production and sale of cosmetic products, ensuring that they are safe for the consumer.
- Testing and registration: Before being sold, powder shampoos must be evaluated by a toxicology professional and registered on the EU Cosmetic Products Notification Portal (CPNP).
- Labeling: Must include INCI (international nomenclature) ingredients, instructions for use and warnings if applicable.

7.7: Quality and sustainability certifications

To differentiate themselves in the market and gain consumer trust, many brands seek ecological and quality certifications, these include:

- ECOCERT / COSMOS Organic: Certifies that the product uses natural and organic ingredients.
- RSPO (Roundtable on Sustainable Palm Oil): Ensures that the palm oil used comes from sustainable sources.

- Cruelty-Free / Leaping Bunny: Indicates that the product has not been tested on animals.
- Vegan Society: Ensures that the shampoo does not contain ingredients of animal origin.
- EU Ecolabel: European eco-label that certifies low environmental impact throughout the product's life cycle.

7.8: Sustainability in the supply chain

One of the essential elements is the sourcing of ingredients, where biodegradable materials are used, derived from responsibly grown crops that have not been treated with toxic pesticides or synthetic fertilizers, nor any practices contributing to the clearance of forests or degradation of soil.

These ingredients are sourced from natural plant materials like coconut derived surfactants or botanical extracts, and are chosen not just for their effectiveness, but also for use in formulations that leave the smallest ecological footprint possible across all stages of the product life cycle (COSMOS, 2020).

Focusing on sustainable packaging is also another important segment, moving from plastic packaging to compostable, recyclable, or reusable formats like kraft paper, aluminum tins, or refillable glass jars. This transition is in line with circular economy principles and contributes to minimizing post-consumer waste. Additionally, many sustainable brands are adopting clean energy manufacturing and cold production processes, and sourcing electricity from renewable energy sources such as wind or solar energy. These practices substantially reduce greenhouse gas emissions in production (ECOCERT, 2023).

The minimization of waste is also key to supply chain sustainability and includes optimizing ingredient utilization, reducing production scrap, and reusing materials when possible. Not only reduces operational cost but improves environmental efficiency.

Third, an increasing number of brands are adding carbon offsetting mechanisms such as investing in reforestation, biodiversity conservation, or certified CO₂ offset programs. These efforts aim to balance any remaining emissions linked to raw material transport, production and distribution. Together, these efforts help create a supply chain that is more sustainable and aligns with ethical practices while promoting environmental responsibility and corporate citizenship (Ellen MacArthur Foundation, 2024).

8: Implementation Plan

8.1: Market entry strategy

A systematic implementation plan is necessary to ease the introduction of powder-based shampoo into the hospitality industry, especially in hotels. Building strategic business-to-business (B2B) relationships with eco-aware hotel chains, boutique lodging establishments, and wellness resorts that actively seek environmental certifications like LEED, Green Key, or Biosphere will be the main goal of the market entry approach.

- **Distribution channels:**

Direct agreements with hotel owners, hospitality supply chains, and certain private-label partnerships, where in some cases, the product is co-branded under the hotel's name, will be used for distribution. The product will be supplied in refillable in-room containers made of recyclable or biodegradable materials.

- **Market segmentation**

Market segmentation will give preference to businesses that demonstrate a dedication to innovation, sustainability, and visitor well-being. Primary aims include health retreats and luxury hotels, while secondary targets include co-living facilities, eco-friendly hostels, and mid-range chains with CSR initiatives.

- Marketing strategy

The marketing plan would highlight how powder-based formulations are also good for the planet, helping to reduce carbon emissions, put an end to single-use plastics and allow for ethically sourced ingredients.

Co-branding opportunities will also enable hotels to promote their sustainability credentials with customized packaging and marketing materials. To encourage adoption through performance assessment and feedback from guests, pilot programs and sampling activities will be offered.

- Retail expansion as a future development

In order to encourage customers to keep using the product after their stay, the model incorporates a retail expansion plan that allows hotels to sell it in gift shops, spas, and online marketplaces.

- Digital Channel Optimization

This will be supported by digital channel optimization, which includes creating personalized landing pages to encourage continuous engagement. Including QR codes in rooms that link to ingredient transparency and sustainability data and creating a special B2B ordering portal for hotels. By measuring the decrease in plastic waste and emissions, this holistic approach not only facilitates operational integration but also helps the hotel with its ESG reporting.

All things considered, the approach integrates product innovation with the changing demands of the hotel sector and the rising need for high-performance, environmentally friendly personal care options.

8.2: Scenarios

8.2.1: Pessimistic

Operative stagnation, user experience issues, and the additional training needed for housekeeping employees are the main reasons why hotels are hesitant to make the change over regular formats. Disruptions to the supply chain, such as limitations on access to approved suppliers and inflationary pressures on natural raw materials, will cause a raise in costs, lowering the profit margins and making the product unviable for the mass market.

Regulatory incentives for sustainable products can be not well implemented to push out traditional formats. If only specialized eco-boutiques and sustainability-conscious hospitality organizations continue to sell, with little to no penetration into large retail or hotel chains, growth will slow down below expectations, as well as the return over investment.

8.2.2: Realistic

Eco-aware customers and innovative hotel chains actively looking for plastic-free options that support their sustainability objectives provide the product a considerable amount of popularity. Initial market penetration is made possible by strategic alliances with wellness resorts and boutique hotels.



A retail presence is built in concept stores, health stores, and a few supermarkets that carry sustainable products. Through approved suppliers, the business can maintain quality and cost control while assuring a reliable supply chain of biodegradable ingredients.

Regulations like the EU environmental guidelines and Spain's plastic tax progressively put more strain on conventional forms, which helps powder-based inventions indirectly. Co-branded hotel trials initiatives contribute to increased visibility and trust, which promotes consistent, scalable growth. By reinvesting in product development, profitability can be achieved in three to five years.

8.2.3: Optimistic

A sustainable next-generation replacement for conventional shampoo is powder-based shampoo, which is instantly being embraced thanks to environmental concerns, legal support, and clever consumer segmentation.

Major hotel chains link it on their sustainability initiatives as a key action for reducing single use plastics and improving ESG metrics. The product sees extensive use in retail settings including drugstores, supermarkets, and online retailers.

A reduction on the unit cost of production assures scalability thanks to the stable production batches. The brand leads the waterless beauty products, capitalizing on a hospitality distribution model and a robust online presence. The shift away from liquid forms is helped by regulatory changes, such as stricter laws around plastic, desire for eco-packaging and bans on microplastics.

9: Financials

9.1: Comparison versus Premium Liquid Shampoo

	100 ml Premium Liquid Shampoo	100 grams Powder Shampoo
Average usage per wash	10 ml	1 gram
Total uses per unit	10 uses	100 uses
Weight	115 grams	110 grams
Packaging waste	15 grams plastic waste	10 grams biodegradable paper
Average price	€4.60	€35.00
Cost per use	€0.46	€0.35

Source: (The Powder Shampoo, 2025), (RITUALS, 2025)

9.2: Savings versus liquid shampoo

	Liquid Shampoo	Powder Shampoo
Cost per use	€0.46	€0.35
Average Guests per room	1.8	1.8
Occupancy rate	80%	80%
Days	30	30
Rooms	150	150
Uses per month	6,480 x €0.46 = €2,980.8	6,480 x €0.35 = €2,268

Monthly savings $€2,980.8 - €2,268 = €712.80$

Yearly Savings. $€712.80 \times 12 = €8,553$

9.2: Analysis per unit (100 grams) 30% discount price based on B2B model

P&L Per Unit		% Of Expense	% Over Revenue
Revenue	\$ 24.50		
COGS	\$ 4.90		20%
Raw materials	\$ 1.75	36%	
Packaging	\$ 0.70	14%	
Manufacturing	\$ 1.40	29%	
Certifications	\$ 1.05	21%	
Gross Profits	\$ 19.60		
Operating Expenses	\$ 10.50		43%
Marketing and Branding	\$ 5.60	53%	
Logistics	\$ 2.80	27%	
R&D	\$ 2.10	20%	
Net Operating Profit	\$ 9.10		
Taxes (25%)	\$ 2.28	25%	9%
Net Profit	\$ 6.82		28%

9.3: CAPEX

CAPEX	% Of Total	\$ 150,000
Blenders, grinders, and extruders	24%	\$ 36,000
Packaging setup	15%	\$ 22,500
Testing Lab	13%	\$ 20,000
Regulatory Certifications	10%	\$ 15,000
Initial Raw Materials (1,500 units)	18%	\$ 26,500
Marketing: Branding and website	10%	\$ 15,000
Legal and Accounting fees	10%	\$ 15,000

9.4: Market Share

	2026	2027	2028	2029	2030
Rooms	64,000	64,000	64,000	64,000	64,000
Market share	1.00%	1.50%	2.00%	2.25%	2.50%
Monthly Rooms	640	960	1,280	1,440	1,600
Times per month	2	2	2	2	2
Monthly units	1,280	1,920	2,560	2,880	3,200
Price	\$ 24.50	\$ 24.50	\$ 24.50	\$ 24.50	\$ 24.50
Monthly Revenues	\$ 31,360	\$ 47,040	\$ 62,720	\$ 70,560	\$ 78,400

9.5: Cashflows

Cashflow	0	2026	2027	2028	2029	2030
Capex	\$ (150,000)					
WC Needs	\$ (100,000)	\$ (31,712)	\$ (65,856)	\$ (65,856)	\$ (32,928)	\$ (32,928)
Operating Cash Flow		\$ 69,593	\$ 100,639	\$ 131,686	\$ 147,209	\$ 162,732
Terminal Value Perpetuity						\$ 1,155,053
Total Cash Flows	\$ (250,000)	\$ 37,881	\$ 34,783	\$ 65,830	\$ 114,281	\$ 1,284,857
NPV	\$ 522,845					

9.6 P&L

P&L	2026	2027	2028	2029	2030
Revenues	\$ 376,320	\$ 564,480	\$ 752,640	\$ 846,720	\$ 940,800
Operating Costs	\$ (293,530)	\$ (440,294)	\$ (587,059)	\$ (660,442)	\$ (733,824)
(CGS)	\$ (131,712)	\$ (197,568)	\$ (263,424)	\$ (296,352)	\$ (329,280)
(R&D)	\$ (75,264)	\$ (112,896)	\$ (150,528)	\$ (169,344)	\$ (188,160)
(Labour Expenses)	\$ (86,554)	\$ (129,830)	\$ (173,107)	\$ (194,746)	\$ (216,384)
Depreciation	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000
Gross Operating Profit	\$ 52,790	\$ 94,186	\$ 135,581	\$ 156,278	\$ 176,976
Taxes	\$ 13,198	\$ 23,546	\$ 33,895	\$ 39,070	\$ 44,244
Net Operating Profit	\$ 39,593	\$ 70,639	\$ 101,686	\$ 117,209	\$ 132,732
Operating Cash Flow	\$ 69,593	\$ 100,639	\$ 131,686	\$ 147,209	\$ 162,732

9.7 Breakeven, Taxes and IRR

IRR	50%
Tax rate	25%
Selling Price	\$ 24.50
Variable Cost	\$ 17.68
Unit Contribution Margin	\$ 6.82
Total Fixed Costs	\$ 150,000
Breakeven Units	21,994

9.8 WACC

WACC	16.09%
RM Premium	7%
Risk Free	2.5%
Growth	2%
Beta (High Risk)	2
Cost of Debt (kd)	5%
Cost of Equity (ke)	16.5%
Taxes (t)	25%

Debt	5,000	44%
Equity	150,000	56%
Total	155,000	100%

Risk Free		Cost of Debt (kd)		WACC		Cost of Equity (ke)
3%	<	5%	<	16.09%	<	16.5%

9.9 Working Capital Needs

Working Capital	0	2026	2027	2028	2029	2030
Revenues		\$ 376,320	\$ 564,480	\$ 752,640	\$ 846,720	\$ 940,800
Working Capital (35%)	\$ 100,000	\$ 131,712	\$ 197,568	\$ 263,424	\$ 296,352	\$ 329,280
WC needs		\$ (31,712)	\$ (65,856)	\$ (65,856)	\$ (32,928)	\$ (32,928)

10: Contingency Plan

Building a robust B2B business model for powder shampoos targeted at hotels requires comprehensive contingency planning to ensure sustainability. The main risk is related to supply chain stability, specifically the sourcing of biodegradable ingredients and eco-certified packaging materials.

Because the formulation relies on specific natural ingredients like coconut-derived surfactants, essential oils, and botanical extracts the company needs to ensure supplier redundancy by using multiple suppliers for each key input.

Likewise, dependency on compostable or reusable packaging depends on identifying flexible packaging suppliers capable of providing alternative formats in the case of lead time interruptions. These risks can be mitigated by strategic accumulation and sourcing from regional producers, thus also supporting local economies.

Client acquisition is another area of concern, especially regarding the longer sales cycles associated with the types of clients served in hospitality. Almost every operation will show some initial resistance, costing the hotel time to switch formats to onboard new suppliers, as this needs to slot into systems that are already being used however unfamiliar guest behavior is creating these challenges.

In order to demolish this obstacle, the company needs to leverage the pilot programs and short-term contracts: an opportunity for hotels to experience product differentiation in practice, whilst being able to receive quantifiable environmental impact data.

Co-branded assets and usage analytics such as plastic avoided or CO₂ saved can also enhance the hotel sustainability communication. Particularly for mid-sized and boutique hotels, partnerships with hospitality distributors or participation in industry trade fairs will help accelerate access.

A bad user experience may lead to low hotel satisfaction and lower perceptions of the brand. This can be improved through investment into training modules for their housekeeping staff to ensure that they seamlessly integrate into the day-to-day operations and that any misuse or over-consumption of the products is prevented.

Since powder shampoo has a higher unit price point than a comparable liquid shampoo alternative, the company needs to emphasize its cost-per-use and total savings, through less product waste and refilling time.

Implementing tiered pricing models, bulk order discounts, and enhanced environmental reporting for example: ESG metrics for annual CSR reports, are all applicable mechanisms to reaffirm a perceptive price point for price-sensitive decision-makers. Bundling shampoo with other sustainable amenities, such as powder conditioner or body wash, may also be a way to increase customer lifetime value.

At last, liquidity and regulatory compliance are examples of risks that could potentially prevent one from growing or scaling. The business should negotiate partial upfront payments in order to minimize cash flow constraints, particularly in the first few months, and keep its operational costs as lean as possible.

Finally, look for public financing and other types of financing for sustainable innovation, options such as EU Green Deal or national programs such as ENISA will be a great option.

From the regulatory point of view, aligning with EU Regulation 1223/2009 on cosmetics and going for voluntary certifications such as ECOCERT or COSMOS will provide market access and build brand credibility.

11: Limitations

Although this study establishes the foundation for investigating the potential of powder shampoo in the context of the Spanish hotel business, some limitations to research need to be acknowledged in order to balance academic rigor and environmental reality. Understanding these limitations is crucial not only to assess the resilience of the business model considered, but also to guide future entrepreneurial or academic investigations.

A main limitation of this study is the fact that we were restricted to using secondary data. While market reports, analysis of industry, and academic literature may offer some perspective, the scope of statistical evaluation is limited by their dependence on secondary data.

A few interviews with hotel procurement managers, a little actual testing in a hospitality environment, and some user feedback from pilot programs would have helped get the company out of the bubble. In the absence of that input, predictions about consumer acceptance and the logistics of integrating the technology into the hospitality business are only logical speculation.

A further constraint of the analysis is, as with any financial and strategic forecast, the underlying assumptions. The business model is built on predicated trends, static cost and behavior patterns.

The ability to model accurately how the cost of raw materials might change, how evolving consumer demands or regulatory incentives might be realized and the speed at which the market would adopt the product were all factors driving intangible uncertainty around business outcomes.

Spain is fertile ground given the awareness around sustainable growth, the supportive regulatory framework and the well-developed hospitality infrastructure. However, the analysis does not differentiate among differences within Spain, which might influence distribution, pricing, and even the ways in which individual customers need to be educated. Cultural contrasts of the cities and regions, or the luxury and mid-range hotels, may reveal variations that cannot be generalized in this thesis.

Regulations are changing in ways that encourage sustainable innovation, but stakeholders, objectives and expectations are also constantly changing. Although the existing system is consistent with the characteristics of the proposed product, new EU cosmetic safety regulation or environmental compliance requirements can make us face unexpected operational difficulties or cost increases. These are some of the difficulties of attempting to introduce an eco-friendly product into the fiercely competitive and tightly controlled market.

The second limitation is the agility of the hotel staff, and practical feasibility of incorporating powder shampoo formulations in the current hotel operational system.

Any variation in cleaning procedures or product usage, no matter how small, can cause logistical problems for hotels that must adhere to strict service standards. Although there are sustainability and efficiency benefits to the concept, its effective implementation mostly relies on staff members' readiness and adaptability. More training, onboarding, and support may be required, particularly to ensure that it is being used efficiently.

The third limitation relates to the several logistical and operational assumptions with inherent uncertainty. Supplier dependability, the existence of certified biodegradable packaging and the agility of the supply chain are some of the variables that are likely to depart from plan.

Taking this strategy to scale and guaranteeing environmentally sustainable sourcing of raw materials and eco-certified packaging has the potential to introduce unknown production timelines or cost pressures, even though the product's low weight and simple packaging framework offer a potential advantage in terms of transportation and inventory. These factors emphasize the need for flexible operational planning and ongoing contact with hotel partners during the implementation process.

Despite these weaknesses, study is substantiated as a strong and thoughtful proposal for sustainable innovation. Considering these issues gives a pathway to incremental improvement, promoting an agile test and learn approach for future development.

12: Conclusions

The aim of this thesis is to answer whether an alternative form of shampoo could provide a convenient, commercial, and environmentally friendly alternative to liquid shampoo in the Spanish hotel market. Via a multi-factorial analysis which includes market, consumer, strategy, supply chain regulation and finance considerations, we validate that powder shampoo is highly promising in terms of profitability and sustainability.

This suggestion is based on the worldwide growing need for items that are not only functional but must also adhere to ethical production, resource efficiency, and ecological responsibility. Powder shampoo, as analyzed in this thesis, represents these principles.

Powder format directly addresses some of the most important environmental issues in the beauty industry. For example: excessive plastic waste, carbon-intensive logistics, and excessive use of water and synthetic chemicals.

Additionally, its concentrated composition provides quantifiable advantages throughout its life cycle by enabling a better product-to-waste ratio, longer shelf life, and lower transportation emissions.

Spain might be one of the best places on to test this revolutionary innovation. The country's extensive tourism infrastructure, including an abundance of boutique and luxury hotels, and strict environmental laws create an ideal setting for sustainable disruption. Spain is governed by modern regulations as a member of the European Union, which encourage the use of circular economy principles, especially in the hospitality and cosmetics sectors.

Legislations such as EU Regulation (EC) No 1223/2009 regarding cosmetic products or Spain's Law 7/2022 concerning waste reduction are stating the market should be driven to innovate, trace and be transparent rather than being a barrier.

The external analysis performed with the PESTEL and Porter's Five Forces, validates the need of both the urgency and the opportunity of entering a sector in transition.

Consumer habits are changing with a dramatic increase in demand for organic, cruelty-free and plastic-free personal care products. The power of substitutes is strong and the rivalry among major and minor players is fierce.

Yet, this also validates the market potential: a shift is underway. A product like powder shampoo which offers portability, customization, and zero-waste convenience, stands at the frontier of next-generation cosmetics. The proposed business model demonstrates strong alignment with current trends and operational viability.

Both SWOT and risk analyses helped us to identify a number of issues, including staff agility, reliance on suppliers, adaptation of regulations and logistical issues connected with the introduction of a new product format in the hotel industry.

The above risks can be mitigated with the right strategies such as investing in staff training, making pilot programs to decrease on-boarding friction, and adapting a flexible sourcing strategy with a focus on supplier diversification and certifications, including COSMOS, ECOCERT and RSPO.

The supply chain in powder form, which starts from sourcing natural surfactants and botanical ingredients and continues with eco-friendly packaging and low-emission logistics, highlights how scalable this project can be.

The product's compatibility with zero-waste principles, combined with Spain's established distribution networks and its growing ecosystem of sustainable vendors, strengthens the operational backbone of the business.

From a financial perspective, the B2B model focusing on hotels and resorts yields promising results. While the unit price of powder shampoo is higher than conventional liquid options, the cost-per-use is significantly lower, especially when applied in high-occupancy environments.

The breakeven analysis, cash flow projections, and scenario planning (pessimistic, realistic, and optimistic) indicate that profitability is achievable within two to five years, particularly when supported by co-branded hotel partnerships and complementary retail channels.

Reduced product volume, easier storage, and hotel buyers' growing interest in ESG by buying eco-friendly products all contribute to cost savings over the long run.

Nonetheless, the study remains grounded in realism. The adoption of powder shampoo will not occur overnight. Behavioral change among hospitality professionals and guests alike will require time, training, and trust. There may be hesitations around usability, sensorial experience, or perceived efficacy.



These are not, however, dead ends. They are opportunities to create more, teach more, and spend more time in the hearts and minds of our actual and future customers.

In summary, this thesis contributes to a broader conversation on how entrepreneurship might meet both the needs of environmental urgency and business opportunity.

Powder shampoo is more than just a trendy item; it represents what beauty and hospitality may look like in the future when sustainability, performance, and purpose are all combined. It symbolizes a change in perspective: from compliance to leadership, from disposable to durable, and from linear consumption to circular concept.

The next generation of successful businesses will be those who incorporate sustainability as a defining concept rather than an afterthought in a world that is becoming more and more dictated by environmental regulations and changing customer preferences.

This philosophy is present in powder shampoo. It is more than just a more hygienic method of washing your hair. It is an organized strategy to value delivery, design, and innovation. For individuals who are prepared to produce beauty without sacrificing quality, this study hopes to act as a call to action and a guide for sustainable entrepreneurship.

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