



New Product Development (NPD)

Blendio All-In-One Glow Foundation

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EXECUTIVE SUMMARY

Foundation is a cosmetic product used to create an even and smooth base for makeup in a liquid form. It is a common makeup product preference for all ladies in this era who love to use makeup. It helps to enhance the appearance of skin by covering imperfections or evening out skin tone. Other than that, it can provide a uniform canvas for other makeup products like blush, bronzer, or highlighter. In the foundation formulations, it generally used some chemical ingredients such as parabens, synthetic fragrances, synthetic dyes, phthalates and more that may pose risks especially long-term or excessive use. These risks can range from skin irritation to potential systemic health effects. Therefore, we are introducing a plant-based foundation formulated with natural ingredients and considered safe for all skin types.

We have established a plant-based foundation named Blendio All-In-One Glow Foundation that formulated natural ingredients like beetroot, coconut water, aloe vera, moringa oil, green tea extracts and other ingredients. Our purpose of creating this type of foundation is to minimize the usage of chemical and synthetic ingredients in foundation that are potentially harmful for consumers' health. In addition, we want to provide healthy foundation products to our target market which are beneficial to their skin and health. Other than that, we also came out with a new product packaging for our foundation that is purposely designed for ladies among travelers, employees and students with compactable and time-saving benefits. The packaging is in a cylinder bottle provided with side-by-side applicator compartment, which are a brush and sponge beauty blender. We are commercializing our products by creating a website store and physical store to get people to know our product's existence.

Our team has conducted a survey and distributed it to respondents whether they are aware about plant-based foundation and how important the plant-based and eco-friendly products are to them. Besides that, we would like to get a response about what criteria and features should be added on a foundation. From the data, we obtained 40% of respondents aware and concerned about plant-based foundation while 6.7% of them were unaware of the benefits of using

plant-based and eco-friendly products. Their feedback and response are important to enhance and improve our product to meet customer needs and satisfaction in order to get their trust on our product.

2.0 INTRODUCTION

2.1 Problem Statement

In the present day, consumers have turned their nose up at synthetic-influenced consumer goods as the cosmetics industry undergoes a large-scale shift. Moreover, this initiative also leads to saving the environment as this also supports the United Nations' 17 Sustainable Development Goals (SDGs). From studies, most products of foundation formulations mostly depend on synthetic ingredients that casts doubt on skin irritation, impacts on environmental issues and human health implications. However, the current cosmetics industry is starting to come up with solutions which are producing plant-based products that can replace the synthetics ingredients like parabens, phthalates and synthetic dyes and have been associated with skin irritations, environmental hazards. Other than that, separate application tools for foundation are inconvenient and cost consumers more especially when travelling or for on-the-go touch-ups. Thus, decrease in usage in products and consumer satisfaction.

2.2 Methodology

This research took a systematic methodology for developing plant-based foundation with embedded applicator tools like blending sponge and fine brush to the foundation product. The formulation is based on the powder of beetroot (*Beta vulgaris*) due to its high betalain content and natural colorant properties. Beetroot pigments provide both visible and antioxidant benefits for the skin by providing colour as well as product use. The product development is done with controlled extraction of the different beetroot components following principles of Green Chemistry to minimize environmental impact whilst having maximum stability of pigment. It features plant-based emollients and natural preservatives to provide a stable carrier in which the product can hold. In terms of design, the product has a very unique design containing a

multi-functional applicator that features a fine brush together with a blended sponge to better product application whilst, at the same time, it is hygienic. The different components are extensively tested to attain compatibility for natural dermatology and ensure a stable performance to fulfill user satisfaction. This development process is guided by clean beauty guidelines at the core to assure being safe and effective while making it convenient as possible.

2.3 Limitations

There are some technical and practical restrictions which need proper consideration. The main limitations would be the Beetroot Pigments Stability. This is because natural pigments of beetroot are sensitive to environmental factors such as temperature, pH and ultraviolet radiation. There are studies that stated that betalain pigments have a tendency of breaking down, which could mean a decrease in shelf life and wash color uniformity of product. Secondly, the limitations would be Color Range Limitations because covering the various color ranges with only plant-based pigments is a huge challenge. Generally speaking, natural colorants provide a smaller range than synthetic counterparts which can influence product-market fit. Thirdly, the limitations would be the Challenges to Preserve the Product. This is because preserving without the use of synthetic preservatives in a product has posed challenges for creatives with their natural preservation systems to ease. This limitation may likely be the cause of product expiry and distribution. Lastly, there will be Constraints of Applicator Tools Design. This is because an effective and hygienic applicator system had to allow for the balance of functionality throughout the life of the product. Engineering challenges are to avoid bacterial growth and guarantee stable application effectiveness.

3.0 NEW PRODUCT DEVELOPMENT

3.1 Introduction to product

Blendio: All-in-One-Glow is a plant-based foundation. It is an innovative product in the cosmetic industry. The product is suitable for sensitive and combination skin. The formulation of this product is plant-based where it uses aloe vera as the main ingredient. The product offers