



Cleansing milk: a natural alternative for skin care and cleansing

Leche desmaquillante: una alternativa natural para el cuidado y limpieza de la piel

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ABSTRACT

Permanent changes in the environment, such as pollution, the sun's rays and the passage of time, have generated in people a greater concern when caring for their skin, in the specific case of women who use makeup, they have seen the need to use a product that cleanses your face completely and also provides care, that is why this business project proposes the creation of a product that cleans, removes make-up and cares for the skin at the same time, using as the base ingredient the gherkin as it offers hydration, vitamins and is very useful in the treatment of skin aging. The market study is carried out in the San Rafael parish, which belongs to the Rumiñahui canton, with possible clients who wear makeup occasionally or use it daily, in ages ranging between 18 and 55 years old, the survey carried out shows results of high acceptance of the cleansing milk. With the present work, a new business alternative is presented by offering a skin care product based on natural ingredients, demonstrating that makeup remover milk has a potential market that needs to be covered.

Keywords: cleansing, skin, make-up remover, pickle, pickle

RESUMEN

Los cambios permanentes en el ambiente, como la contaminación, los rayos del sol y el paso de los años, han generado en las personas una preocupación mayor al momento de cuidar su piel, en el caso específico de las mujeres que ocupan maquillaje, han visto la necesidad de ocupar un producto que limpie su rostro completamente y también que les proporcione cuidado, es por esto que, este proyecto de negocio, propone la creación de un producto que limpia, desmaquilla y cuida la piel a la vez, empleando como ingrediente base el pepinillo ya que ofrece hidratación, vitaminas y es muy útil en el tratamiento contra el envejecimiento de la piel. Se realiza el estudio de mercado en la parroquia San Rafael, que pertenece al cantón Rumiñahui, con posibles clientes que usan maquillaje ocasionalmente o lo usan a diario, en edades que oscilan entre los 18 y 55 años, la encuesta realizada muestra resultados de alta aceptación de la Leche desmaquillante. Con el presente trabajo se presenta una nueva alternativa de negocio al ofrecer un producto para el cuidado de la piel a base de ingredientes naturales, demostrando que la leche desmaquillante tiene un mercado potencial requiere ser cubierto.

Palabras clave: limpieza, piel, desmaquillante, pepinillo

INTRODUCTION

Until before 1950, there were makeup remover products, but it is from that year onwards that their significant evolution began, with the appearance of the first makeup remover milk, followed by the first products based on natural ingredients such as essential oils, which, in addition to cleansing the skin, served to moisturize and nourish the skin. At the beginning of the 21st century, products with a variety of packaging and textures appeared, such as make-up remover wipes and biphasic lotions composed of water and oil.

There are different types of make-up removers:

- Liquids: water-based
- Oleous: mainly based on oils and other ingredients.
- Two-phase: water and oil compounds
- Make-up remover wipes.
- Cleansing milk: ideal for sensitive skin
- Make-up remover cream: for mature skins (AVON, 2015)

The properties of cucumber are due to its balanced supply of nutrients (it provides folic acid, magnesium, potassium, vitamin C and B5 in good quantities), which contrasts with its low caloric intake. A medium-sized cucumber of about 250 grams is barely 30 calories for the organism and, nevertheless, offers a rich range of nutrients:

It is rich in vitamin C. This vegetable provides vitamin C, essential to stimulate the immune system (250 grams cover 13% of daily needs). This natural antioxidant is also essential for the production of collagen and protects against the damage that free radicals can cause on cell membranes.

It contributes vitamins of the group B. A medium piece of cucumber provides the body with 18% of the necessary folic acid and 10% of the vitamin B5 it needs.

Source of essential minerals. It contains minerals such as potassium and trace elements such as silicon (basic for the formation of collagen in the skin and soft tissues of the body), molybdenum, copper and manganese (essential for the formation of certain antioxidants), with a contribution that covers 5% of daily needs with 250 grams. (BodyMind, 2020)

This research seeks to determine the feasibility of starting a business for the production of makeup remover milk, formulated with a base of gherkin and other ingredients that contribute to skin care, serve as a natural cosmetic cleansing product and do not have a high price. The initial focus is on the Valle de los Chillos sector, San Rafael parish, Rumiñahui canton, with projection to cover other areas of the city of Quito.

Currently, the skin care cosmetic market has had a considerable growth, since people take great care of their appearance, not only for vanity but also for health. The ingredients used

for the elaboration of this product are not abrasive for the skin, gherkin is used as a natural cleansing and moisturizing ingredient, which according to scientific studies has astringent properties.

MATERIALS AND METHODS

The present research work has a quantitative approach that according to Hernández Sampieri, Fernandez and Baptista (2014) is based on statistical analysis and numerical measurement through data collection for the explanation of phenomena. The research design is descriptive since it seeks to describe the influence of variables related to the phenomenon in the population during a given period, in this case, to measure the acceptance of a new product in the market. The technique used for data collection is the survey through a questionnaire with closed questions applied to the sample of the population.

The market study aims to determine the feasibility of the project to demonstrate that there is an unsatisfied demand. Through segmentation, the target market was obtained, from which the sample was calculated to apply the market research. The results were used to calculate the demand and supply with their respective 5-year projections.

The target market for the product is women, ladies or young ladies, between 18 to 55 years old, who usually go out daily to study, work in offices, customer service, occupy makeup on a daily or occasional basis. They would appreciate a product that removes makeup easily and at the same time provides benefits to their skin, at a price suitable to their economy.

The project will be carried out in Ecuador in the Sierra region, in the province of Pichincha, Cantón Rumiñahui, where INEC, according to projections for the year 2020, estimates that there will be 115,433 inhabitants. The market study is focused on the Parish of San Rafael, where there are 9,952 inhabitants, of which 5,075 are women. See Table 1

Table N°1:

Market segmentation

VARIABLE	DESCRIPTION	N° INHABITANTS
COUNTRY	Ecuador	17'510.643
REGION	Sierra	7'847.136
PROVINCE	Pichincha	3'228.233
CANTON	Rumiñahui	115.433
PARISH	San Rafael	9.952
WOMEN	San Rafael	5.075

Source: (INEC, 2020)

For the calculation of the sample, the size of the population of women in the San Rafael parish was taken as a reference, which is 5,075, which is a finite population; therefore, the formula (Hernandez & Baptista, 2006) to be applied is equal to:

$$n = \frac{Z^2 \cdot P \cdot Q \cdot N}{e^2(N - 1) + Z^2 \cdot P \cdot Q}$$

Z= confidence level	95% = 1,96
p = probability in favor	0,5
q = probability against	0,5
n = number of elements	?
e = estimation error	0,05
N= Population	5.075

$$n = \frac{(1,96)^2(5.075)(0,5)(0,5)}{(0,05)^2(5.075-1)+(1,96)(0,5)(0,5)} = 369$$

After applying the finite population sample formula, the result obtained was 369 women, who will be surveyed.

RESULTS

After applying the survey, reference is made to the questions that yielded relevant results. Question 9: Would you like to use a makeup remover product made from natural products and with benefits for the skin? Table 2 shows the results.

Table N°2:

Acceptance of a natural product

OPTIONS	ANSWERS	%
YES		98,92%
NO		1,08%
TOTAL	369	100,00%

Question 7: How many times a month do you purchase a makeup remover product?

Table N°3:

Frequency of purchase

OPTIONS	ANSWERS	%
1 time		41,73%
2 times		37,40%
3 times		12,47%
4 times		8,40%
TOTAL	369	100,00%

Question 10: Which natural ingredient would you prefer in a skin care product?

Table N°4:

Frequency of purchase

OPTIONS	ANSWERS	%
Pickle	240	65,04%
Coco		14,91%
Chamomile		20,05%
TOTAL	369	100,00%

OPTIONS	ANSWERS	%
\$3 a \$5		23,85%
\$6 a \$9		29,00%
\$10 a \$15		47,15%
\$more	0	0,00%
TOTAL	369	100,00%

Potential demand

Taking into account that there is no historical data and that according to question 9 there is an acceptance of 98.92% of the population to purchase natural make-up remover products, the annual demand in dollars was calculated together with the results of questions 5 and 7: $D = n * p * q$ (where D is the demand, n is the population, p is the price and q is the purchase frequency)

In Table 5, we proceed to multiply the number of women who would accept the new product, by the average price of \$12.50 with 47.15% and the periodicity of consumption in one year, obtaining a demand of \$753,000.00.

Table N°5:

Potential demand

Variable	Symbol	Value
Acceptance (5075x98.92%)	98.92% n	5020,00
Most accepted average price	p	12,50
Frequency of purchase 1x per month x 12	q	12,00
	Demand	753.000,00

Demand projection

To project demand over the next 5 years, the population growth rate of 1.95% is used as a reference index. (INEC, 2020) See Table 6

Table N°6:

Demand projection

Year	Potential demand	Population growth	Demand Projection
	753.000	1,95%	753.000,00
2021			767.683,50
2022			782.653,33
2023			797.915,07
2024			813.474,41
2025			829.337,16

Offer analysis

In order to know the supply in the cosmetics market, the figures provided by Procosméticos were consulted, where it is indicated that the annual sales specifically of makeup remover products in 2018 is \$33,013.28. (Procosmetics, 2018) With this value, the projection is made from 2020 to 2025, taking into account a growth of the sector of 18% per year. (A. El Telégrafo, 2019) See Table 7.

Table N°7:
Supply projection

YEAR	OFFER IN DOLLARS
2018	33.013,28
2019	38.955,67
	45.967,69
2021	54.241,88
2022	64.005,41
2023	75.526,39
2024	89.121,14
2025	105.162,94

Unmet potential demand

A comparison between supply and demand projections shows that there is unsatisfied demand from 2020 to 2024, as shown in Table 8.

Table N° 8:

Unmet Potential Demand

YEAR	DEMAND	OFFER	IPR Year	DPI day
	753.000,00	45.967,69	707.032,31	1.937,07
2021	767.683,50	54.241,88	713.441,62	1.954,63
2022	782.653,33	64.005,41	718.647,92	1.968,90
2023	797.915,07	75.526,39	722.388,68	1.979,15
2024	813.474,41	89.121,14	724.353,27	1.984,53
2025	829.337,16	105.162,94	724.174,22	1.984,04

After having conducted the survey, it was determined that most women use makeup daily, which is beneficial considering that this use derives from the use of a makeup remover product; similarly, less frequent users would use the product, although in less quantity.

According to question 2, 46% use a makeup remover product, which indicates that makeup remover milk can be one of those products. Question 9 indicates that the market shows a high acceptance of natural products, which in turn is complemented by the result of question 10 when 65% of the respondents prefer gherkin as a natural ingredient for use on the skin.

With 52.30% not satisfied with the current products on the market according to question 11, the dissatisfaction of potential buyers can be covered and the expectations of the other group, which is satisfied, can be exceeded, so that they prefer the new make-up remover milk.

CONCLUSIONS

Nowadays women are more concerned about keeping their skin healthy and clean, so this work presents a new business alternative by offering a product for skin care based on natural ingredients, demonstrating through the market study that makeup remover milk has a potential market that needs to be covered.

The present research was directed to a population of San Rafael in the Rumiñahui canton of 5,075 women, applying the survey to 369 sample elements, and it was determined that makeup remover milk has a 99% acceptance rate.

Taking into account the option given to potential customers in the survey and focused on the line of skin care products, as an alternative product is the relaxing cream made with chamomile or gherkin masks, which have a low production cost.

Once the commercial feasibility of the product has been demonstrated, as a continuation and complement to the present study, we intend to continue with the technical and financial study in order to determine the necessary resources for its execution, as well as the calculation of costs, expenses and income in order to demonstrate its viability through the financial evaluation.

The possibility remains open for future research to look for the application and use of different natural products found in nature that can be used for the health of human beings.

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