

COMPARING THE PERFORMANCE OF SITH VCO BODY BALM TO BODY SHOP BODY BUTTER USING BLIND-TEST METHOD

Rininta Sari and Budi Permadi Iskandar
School of Business and Management
Institut Teknologi Bandung, Indonesia
saririninta@yahoo.com

Abstract

This research tries to compare the performance of SITH VCO body balm to The Body Shop butter using blind-test method. To identify the advantages of SITH VCO Body Balm, so that the management will have a clearer target market. This research use blind-test method, which participated by 98 respondents. SITH VCO Body Balm has an absolute advantages towards all four tested variables (sensation after sweat, moisture on dry skin areas, absorption, and smell after usage). Data only taken in Jabodetabek and Bandung area, this research conducted between June – August 2012, more specifically to those who have dry-skin, and for woman who at least 19 years old. There are also 18 respondents who are refused to do blind-test. This research will help the management of SITH VCO body balm to determining the appropriate marketing strategy as a part of product commercialization effort. In this reserach, the sample is directly come from the factory. It means this research cam be implemented to the factory that produce this product

Keywords-component; Marketing, Blind-test

Introduction

ITB as the leading technology institute in Indonesia has succeeded in creating a variety of technologies that can support human life using science knowledge and innovation. *School of Life Science and Technology (SITH)* is a part of ITB that frequently earns accomplishments by creating innovation through biology and microbiology sciences. Founded in January 2006, SITH has conducted a lot of research done by professors assisted by undergraduate and graduate students. Research conducted at SITH-ITB is diverse, mostly based on herbal daily needs.

Microbiology, one of the research groups in SITH, has developed a product for daily skin care using virgin coconut oil (VCO) as its basic ingredients. VCO can be processed into beauty products like body wash, body balm, and VCO oil. Some of these products have been created by SITH and still have not entered the stage of commercialization and body balm is one of them. SITH VCO product is categorized as body moisturizer. This VCO-based moisturizer can be used by all skin types including dry skin and mostly suitable for people who live in tropical environment. Other advantages provided by VCO are solution for preventing dryness and flaking skin, delays wrinkles and also the benefits for aging prevention.

This issue is considered by Center of Innovation, Entrepreneurship, and Leadership (CIEL) as an opportunity and effort to developing research in technology commercialization by offering SITH to create a joint effort to conduct a pilot project on this matter. As an organization within School of Business and Management, Bandung Institute of Technology (SBM-ITB), CIEL is established to develop Indonesian entrepreneur with a vision to be a reputable research center in ASIA which serves as a medium for scientific development in the area of innovation, entrepreneurship, and leadership.

As one of the commercialization step, a survey is conducted in this research to obtain the understanding of *VCO body balm SITH* product differentiation and strength upon *The Body Shop body butter* as the benchmark. The data is required by CIEL in the preparation of Marketing Strategy in technology commercialization efforts.

Following the example, some components, such as multi-leveled equations, graphics, and tables are not prescribed, although the various table text styles are provided. The formatter will need to create these components, incorporating the applicable criteria that follow.

Basically, SITH VCO body balm has owned solid concept and unique innovation that could cope the competition of body moisturizer market in Indonesia. This brand has also created a range of product variant with various kinds of fragrances that arouses demand and increase chances for attracting potential buyer's attention. Though, SITH VCO body balm's management has not been able to identify strong points of this product that can be utilized to analyzed further strategy to commercialize this product to a broader market. This condition is considered unfortunate considering because SITH-ITB has a promising potential to develop. Analysis of strong points that discovered in this research can help SITH management to further understanding the strength of their product compared to the other brand in body moisturizer category.

Referring to problem addressed, this research is conducted with the aim to measure SITH VCO body balm strong points by comparing to The Body Shop body butter. This comparison is performed using strong points variables that influence identification process.

Theoretical Foundation

A. School of Life Science and Technology ITB

SITH ITB is one of the main faculties of ITB in which since January of 2006 it had managed to develop six study programs in both the undergraduate and graduate (master and doctoral) level offering multidisciplinary education to produce graduates of life science and technology who are well prepared to face the challenges of a modern competitive global era. National and international grants both fund the research projects, mainly in four of SITH's primary disciplines, in which they consist of: (1) Ecology and Biosystematics, (2) Physiology, Developmental Biology and Biomedicine, (3) Microbiology, Genetical and Molecular Biology, and (4) Plant Science and

Biotechnology.

Professors of SITH have done various research in which many of them are assisted by both undergraduate and graduate students. The diverse research conducted by SITH is mostly based upon herbal daily needs, in which mostly have high economic values in the market. As a result of this research scientist have developed and optimized those of pre-existing product, improving its benefits. An added value that this new product has is its doubled benefits with additional side effects, thus this product will immediately be highly demanded once it is launched into the market. However the research team faces an evident obstacle, they do not have the full capacity to market and commercialize the product. Pure research was the initial focus of this study, and without a professional management team this study faces a great misfortune as they cannot convert their great ideas into marketable opportunities. Thus a management system must be developed, both in the stage of identifying opportunities, product development, interesting packaging and distribution, and the marketing of products.

B. The History of Virgin Coconut Oil

People in tropical areas of Asia have often adopted coconut as part of their daily diet and tools of livelihood, this too is shared by cultures in the Pacific Islands, South and Central America, as well as Africa, for a span of more than a thousand years. Natives would often convert coconut to coconut milk or oil as a means to improve their cooking, in which a long history has shown that its diverse use characterize the fruit as well as its source tree or plant as a multi-purpose ingredient, as many foods and daily tools derive from the plant, establishing coconut as a superior, multi-purpose crop which can be cultured and planted through agricultural practice (Bawalan and Chapman, 2006).

Various methods have been developed to extract coconut oil be it dry or wet. Dry processing is the most commonly used form of extraction as it used clean, ground and steamed coconut kernels which is pressed using either wedge, screw, or hydraulic press to accumulate the oil, this is then successively refined, bleached, and deodorized in a process to perfect a usable liquid, often called as the RBD process. In this process heating at high temperature is applied during

Identify applicable sponsor/s here. If no sponsors, delete this text box. (sponsors)

deodorizing, carried out in immense temperatures of 204 and 245°C (O'Brien, 2004). Coconut kernels, or copra, are commonly contaminated by aflatoxin which contain high level of free fatty acids, which pose a threat to the industry itself (Guarte, Muhlbauer and Kellert, 1996). A recent trend in the coconut oil industry shows that the oil do not need to go through an RBD process, as rather than going through a normal dry process, the oil is obtained through wet processing which extracts cream from fresh coconut milk and breaking the emulsion. This is a more preferred treatment, as it does not expose the oil with either high temperatures or chemicals (Marina, Che Man and Amin, 2009) and thus the oil itself is called as Virgin Coconut Oil.

C. Uses of VCO and VCO as a Moisturizer

Fife, Kabara and Dayrit (2006) proclaimed that there are more than 52 benefits to virgin coconut oil as research and observation show that medium-chain fatty acids such as those in coconut oil can kill viruses that cause mononucleosis, influenza, hepatitis C, measles, herpes, AIDS; killing bacteria that cause pneumonia, carache, throat infections, dental cavities, food poisoning, urinary tract infections, meningitis, gonorrhoea; killing fungi and yeast that cause candida, jock itch, ringworm, athlete's foot, thrush, diaper rash; expelling or killing tapeworms, lice, giardia; providing nutritional source of energy, boosting it as well as endurance, physical, and athletic performance; improving digestion and absorption of fat-soluble vitamins and amino acids; improving insulin secretion and utilization of blood glucose; relieves stress on pancreases and enzyme systems of the body, reduces symptoms associated with pancreatitis, help relieving symptoms and reducing health risks associated with diabetes; help protect against osteoporosis, help protect body from breast, colon, and other cancers and many more. VCO can also be used to lower calories than most other forms of fats, having resistance to oxidation, as well as being unharmed or discomforting side-effects, as well as being completely non-toxic to humans.

As previously stated by Fife, Kabara, and Dayrit, moisturizers support the natural chemical balance of the skin as it softens it up and help relieve dryness and flaking as well as

preventing wrinkles, sagging skin, and age-spots.

In addition, based on the website healthy-oil-planet.com, a research in Makati, Philippines compared virgin coconut oil and mineral oil to determine which moisturizer is both most effective and safe. Through the study researchers have found that virgin coconut oil, as compared to mineral oil, is a much more effective skin moisturizer in which both oil showed improves skin hydration and lipid levels, yet no change in level of water loss or pH of the skin is evident. Moreover the use of virgin coconut oil lead to improved skin complexion as participants using VCO found it had reduced skin dryness and roughness much more significantly than that of mineral oil.

D. Prerequisites of Moisturizers

In terms of basic skin care, moisturizers include as part of key components as they alter epidermal barrier and reduce water content in epidermis. Used to restore the barrier function of the epidermis, moisturizers can also cover tiny fissures in the skin, provide soothing protective film for the skin, as well as increase the water content in the epidermis, thus slowing down the rate of evaporation in the skin's moisture level, maintaining hydration and improving the appearance and tactile properties of dry and aging skin (Kraft and Lynde, 2005). Also stated by Kraft and Lynde that an ideal moisturizer should be effective in hydrating the SC (stratum corneum) as well as reducing and preventing TEWL (trans-epidermal water loss); an emollient with the purpose to making skin smoother and supple; aiding the restoration of lipid barriers and duplicating and enhancing natural moisture retention mechanism of the skin. The lotion itself is cosmetically elegant and acceptable as it moisturizes sensitive skin, being hypoallergenic, having no sensitizing process, fragrance-free, non-comedogenic, affordable, long-lasting, and absorbed rapidly to provide immediate skin hydration.

Clinical test is meant to complete a series of test which ensures the product meets standard safety protocols for medicinal objects which is regulated by the BPOM in the constitution. Clinical test is meant to prevent undesired side effects, be it allergies or lethal poisoning.

E. Types of Skin

There are five theoretically existing types of skin; oily, combination, normal, sensitive, dry and sun-damaged. A person's skin type is determined by the level of oil produced by the skin as genes, diets, stress level, hormonal fluctuations, medication and even skincare regimen would influence the level of oil skin produces.

- Oily Skin

Oily skin is characterized as having a shinier appearance as it has enlarged pores and may be prone to blackheads and breakouts due to overproduction of the sebaceous (oil-producing) glands. Oily skin ages better than dry skin as oil keeps the skin plump allowing fewer wrinkles to form. Oily skin often loses their level of excretion as the person ages, creating a more dry skin, especially after passing the age of 35.

- Combination/Normal Skin

The general population of women (research say up to 70% in a post-objective manner) have a combination, or otherwise known as "normal" skin. This skin type has medium pores, a smooth and even texture, good circulation and healthy color.

- Dry Skin

After passing the age of 35 years old most women experience loss of oil and are left with dry skin. This fluctuation is often attributed to hormones as the skin feels tight especially after cleansing. Fine wrinkles, flaking, and red patches become more evident and, in the case of women, may appear ashy or dull from dead skin build-up.

- Sensitive Skin

Sensitive skin tend to be thin and delicate with fine pores, often suffering quick irritation due to the effect of sunlight, certain cosmetic products, and, if you are prone to redness, itchy patches or blotchy skin, all of which are characteristics of sensitive skin.

- Aging or Sun-Damaged Skin

Aging skin is often tighter with visible wrinkles, having slack skin tone, with leathery texture and broken capillaries.

Methodology

Research Identification

This step serves to identify the research problem and help researcher to address research objective. Research identification was executed by conducting in-depth interview with Vice-dean of SITH-ITB, Dr. Pingkan Aditiawati. In

this step, information gathering about the product overall performance was also being conducted.

Focus Group Discussion

Focus Group Discussion (FGD) are held People who were involved in FGD are Rininta Sari (researcher), Mr. Budi Permadi (research supervisor), Ms. Amilia Wulansari (tutor and SITH-ITB graduate), Mrs. Mia Tantri (lecturer and SITH-ITB graduate), and Ms. Ika Zain (tutor).

The aim of FGD is to define the variables that could serve as benchmarks for body moisturizer quality and performance comparisons.

Sampling Method

This part is presented to provide an understanding about sampling method that is used in this research. Target population for this research is also outlined together with sample size. Results from this part are utilized to define respondents who participate in the survey.

F. Population

Target population in this research is women aged 19-55 years old who live the urban environment in Jakarta and Bandung. The amount of woman citizens aged 19-55 years old who live in Jakarta is 2,562,098 people according to government's population census on 2010 (BPS, 2010) and the amount of woman citizens aged 19-55 years old who live in Bandung is 630,188 people according to government's population census on 2005 (bandunglokalbisnis.com). Using the information from statistics, total population for urban women who live in Jakarta and Bandung is 3,192,286 people.

G. Sample Size

The population is based on the population number of urban city woman aged between 19 to 55 years old who lives in Jakarta and Bandung city. The sample size is determined as 98 respondents. By using the Slovin formula, margin error is be sought. The formula is:

$$n = \frac{N}{1 + N(e^2)}$$

So, there is a 10% possibility the results of this study is wrong and did not represent the whole population.

Non-probability and convenience sampling was conducted to define the respondents, where sampling elements will not be selected through random selection process. Respondents were chosen with consideration of easiness.

Experimental Survey Preparation

Experimental Preparation Survey was created as place for preparing the necessities required in this research. In this section blind-test method and research variables are explained as the survey main component.

Blind-Test Method

Single blind-test method is used in this research, means that respondents remained uniformed about the brand and identity of products. This method is purposed to eliminate respondents in mind suggestion and subjectivity on product tested.

Product Variant Selection

The form of skin care product that is tested as comparison in this research is body butter. Preference to use body butter was made due to limited type of body moisturizer sold in Indonesian market. Theory about body moisturizer similarity that has been mentioned in the previous chapter also strengthens this decision. SITH VCO's variant used in this research is "Tangerine" while The Body Shop product that used as comparing item is "Satsuma" body butter. Product and variant selection is built upon fragrance similarity between the two moisturizers compared to other variants that SITH VCO body balm has.

Research Variable

Variable selection in this research was resulted from focus group discussion that has been conducted in the first place. The two groups that have been selected to represent the whole research are absorption effect and fragrance. In absorption effect group, there are eight variables; *Moisture in Hot Weather, Moisture in Cool Weather, Sensation after Sweating, Sensation after Contacted with Water, Moisture of Dry Skin Area, Absorption, Moisture after 2 hours, Moisture after 6 hours.*

For the fragrance effect group, there are only two variables which are; *fragrance by opening the tube, Fragrance by application.*

The survey added one variable which are an open question box where respondent can gives their overall comment upon the samples.

Survey Design

Survey design was made in order to presents easiness for reader to understand how the survey was conducted. Survey started with the choose of respondent using convenience sampling, so respondents chosen are discovered by a chance and continue with the agreement to do the research. Each respondent was given two tubes of samples with different designs with Sample A is using aluminum-based tube consist of *SITH VCO body balm*, while sample B is *The Body Shop's* packed using white plastic-based tube.

Research continues with the distribution of the moisturizer samples and variable information to respondent, the respondents allocation is listed below:

Table 3.1 Respondents Domicile Distribution

	BD	JK
	G	T
Mature	10	38
Young	18	32

Respondents were divided into two major cities in Indonesia, Bandung and Jakarta. For respondents who lives in Bandung, every each of them has connection with SBM-ITB either students or staff except for one mature respondents who participate by a close relationship with researcher. Respondents who live in Jakarta are distributed by close relatives and institution. Respondent from institution that participates in this research came from Pertamina Corporation and *Persatuan Wanita Patra (PWP)*.

Gathering Data Method

Once the data from interview have been gathered, it must be processed to produce analysis to answer research objectives. Data were processed using tables in Microsoft Excel 2007 and later followed by a descriptive analysis to portray the results of survey conducted. Respondent's comments are also recorded independently in order to provide additional recommendation in the final chapter.

Data Analysis

This sub chapter will explain the data analysis that has been performed in this research.

Respondent Demography

This section shows the demographic analysis of respondents who contribute in this research, which consists of 98 female respondents from two age groups that distributes between 18-34 years old (categorize as “Young”) and 35-above years old (categorize as “Mature”). There are 51% of young respondents and 49% of mature respondents. Based on the age groups distribution, mature age groups divided into 3 occupations group; Housewives (31.25%), Professional (20,83%) and Employee (47,92%). And Young age group is divided into two occupation, college students (98%) and employee (2%).

Variable Analysis

After respondents do the blind-test, there are ten variables measured. Variables are portrayed in separation by each group in order to produce detailed analysis. The result is the moisture of dry skin area variable obtains the highest score for mature age group followed by fragrance by application and sensation after contact with water. Total average score for mature age group is 37.08%. For young age group, moisture of dry skin area variable also gets the highest score, followed by absorption in second place. Total average for young age group is 22.60%

Conclusion

The SITH Body Balm has various advantages however they are absolute as some of them pose as wither negative or even smaller in effect. To observe the absolute advantage in which the SITH balm pose as positive whilst that of the Body Shop is negative, these are the results shown on the table below:

	SITH VCO body balm	The Body Shop body butter	Result
Moisture in Hot Weather	- 34,69 %	-71,43%	36,73 %
Moisture in Cool Weather	- 26,53 %	-36,73%	10,20 %

Sensation	- 33,45 %	-55,10%	32,65 %
Sensation after Contacted with Water	36,73 %	-12,24%	48,98 %
Moisture of Dry Skin Area	55,10 %	-14,29%	69,39 %
Absorption	14,29 %	-24,49%	38,78 %
Moisture after 2	57,14 %	44,90%	12,24 %
Moisture after 6	- 20,41 %	-38,78%	18,37 %
Fragrance by opening	14,29 %	-14,29%	28,57 %
Fragrance by application	30,61 %	-14,29%	44,90 %
Average			34,08

Absolute advantage can be achieved through the variable of ‘sensation after sweating’, ‘moisture of dry skin area’, ‘absorption’, and ‘fragrance by application’. However despite the highest value is for ‘dry skin area’, the strongest point of this research comes from ‘absorption’. This is to prove that *SITH VCO body balm* works better, less slippery and sticky, and absorbs the surface of the skin perfectly. The advantage also concludes that there is a correlation between the absolute variables as the effect of quick absorption can expose the benefits of this product in ‘moisture of dry skin’ which can be stated by respondents as a product with the best result for dry skin. Due to the factor of absorption *SITH VCO body balm* is also less slippery and is more soluble when washed with water.

Recommendation

Based on the analysis and research finding as previously described, there are several recommendation created in an effort to provide input to management as well as to CIEL SBM-ITB to improve the quality of the *SITH VCO body balm*, the recommendations made are as follows:

- Potential Target Market
Mature age group is discovered as the most compatible age group for *SITH VCO body balm* based on the research findings. This age group can be preferred as a potential target market, especially for those who work as a professional which a woman who has a dynamic activity and changing environment temperature. Although it

would need a further research to strengthen this argument.

- Respondents Comments

Based on the open question survey, two respondents suggested the possibility of sample A's thickness if it can be reduced as they felt it was too concentrated, making the application of the moisturizer feel heavy and uncomfortable. *SITH VCO body balm* management may want to consider re-examining the viscosity of the body balm, because if consumers can get the entertainment value from this products it can be used to be focused as a strong advantage which separates *SITH VCO Body Balm* from its competitors.

Recommendation for Further Research

Considering limited time and research scope, there are some recommendations for further

research that will conducts by CIEL that can be useful to utilized the comercialization process: Since the absolute advantage has been discovered, unique selling proposition can be delivered as "Fastest in absorption, you will get smoother skin without worries of sticky and wet". This USP can be promoted in order to commercialize the product into the vast market. Based on this research perspective also, the 4P's identification later can be easier looking from *SITH VCO body balm* is proven to have a better quality than *The Body Shop* by the consumer product experience. But things to be noted is *The Body Shop* already has a strong market positioning in Indonesian market, so it can be a liitle difficult for *SITH VCO body balm* competes in the promotion and place aspect. Whereas price can earn advantages looking from *The Body Shop* sold at 179.000 IDR while *SITH VCO body balm* sold at price 129.000 IDR.