Cosmetic Usage in Malaysia: Understanding of the Major Determinants Affecting the Users

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Abstract

Studies on cosmetic have received more attention not only from users, producers, retailers, but also from the authorities that are governing the industry. The consequences of the product usage received considerable attention but understanding of its development is hardly explored. But still, from year to year, the sales of cosmetics have demonstrated the continued growth. The industry players nowadays have diversified their marketing approaches not only to the traditional female market, but also to male market as well. A survey of 622 respondents using personally administered questionnaires, was conducted among the public in the East Coast of Peninsular Malaysia, concerning the effect of cosmetic usage to the skin. Specifically, there are three constructs of the survey such as branding, ingredients, and skin problems are assumed to be among the primary determinants for the cosmetic usage. The study further investigated several demographic profiles as to what extend they influence the usage of cosmetic. Using correlation and regression analysis, the results of the study indicated that there was a significant relationship between the identifiable constructs as to the determinants affecting the purchase and usage of cosmetic.

Keywords: cosmetic usage, ingredients, skin problem, branding, consumer

Background of Study

Naturally, from the perspective of the need that could either be physiological or sociological, youths tend to place more interest in maintaining their self-images. As frequently, being associated when referring to any image building studies, cosmetics appeared to be linked with female (Norudin, 2005) and it seems to varies accordingly to the age groups, nature of career, and also the geographical factors where they are living in. Nowadays, cosmetic is one of the elements that bring attractiveness to human. It is becoming a trend for most people to use cosmetic in their daily life regardless of which generation groups they belong to. While usage of cosmetic is at the increasing trend, some users are not very concerned about the implications of cosmetics to their healthy body such as skin and physical outlook. As mentioned by Rodda (2004) to some Asians they tend to overdo the usage such as like the whitening ritual. For some users, they randomly picked products to be used without thoroughly investigating the usefulness and the negative outcomes of the usage. It is vital to study the ingredients, understand what they are and what they can do to users' skin. The messages sent through the promotion media needed to be analyzed further before purchasing and usage decision is to be upheld. Referring to the Environment Working Group (EWG) studies in the US as an example had found widespread evidence that many cosmetic products on the market were not safe and effective, including one of every eight high-SPF sunscreens that does not protect from UVA radiation. Nevertheless, there are products identified that offer very good sun protection with ingredients that present minimal health risks to users (Environmental Working Group, 2007). Despite of reminders sent to the public, still a large number of users in the US failed to have a comprehensive understanding of the health implications of our exposures to complex mixtures of low doses of industrial compounds and pollutants.

Remarkably, federal health standards do not strictly require companies to test their products for safety before they are sold, including nearly all chemicals in sunscreen and other personal care products.

In some cases the federal government approves new chemicals for the market using computer models to predict if they are toxic to humans. These are particularly risky methods, given the many studies showing such as pollutants cross the placenta to contaminate babies even before the moment of birth. For example a recent study conducted by EWG revealed an average of 200 chemicals in umbilical cord blood from 10 newborn babies (Environmental Working Group, 2007).

Problem Statement

Our public observations and reviewing of the relevant literature indicated that most of the cosmetic users were not seriously concerned about the effect of usage of products to their skin. Most of the users focus on the short term result to their skin appearance rather then the long term effects to the whole body. Several studies indicated that, quite a large number of cosmetic users were threatened with terrible result but they still continue using the product in order to satisfy their egoistic needs. Among issues that needed to be addressed concerned on the relationship between the effect of cosmetic usage, the ingredients with the cosmetic usage and the concept of branding with the cosmetic usage. The whole process in cosmetic consumption always involved in knowing the degree or level of the consumer awareness towards the effects. Some consumers did not care whether the cosmetic will give the negative or positive effect. For this circumstance, it seems that many consumers did not know well about the sensitivity of their skin towards the cosmetic products. In another aspect some consumers did not read the ingredients of the cosmetic products before the decision to use them. Some scientific terms use in prescribing the ingredient lead to the difficult understanding by consumer. Another important consideration is the role of branding which is very much associated with the advertising, environment and beliefs.

Objectives

Through this study, we aim to accomplish the following objectives:

To investigate the demographic profile of the cosmetic users at east coast area.

To indicate whether the cosmetic users concern with the effect to the skin, brand and ingredients when using the cosmetic products.

To determine the factors that influence the cosmetic users when purchase the cosmetic products.

Scope and Limitation

Our investigation focused on the population ranges from age 16 and above including both male and female. The population of study was categorized into four main ages: from 16 to 20, 21 to 30, 31 to 40 and 41 years old and above. As the nature of study involved very large population, for having a good generalization, three states in the East Coast of Malaysia were considered. The states involved were Terengganu, Pahang and Kelantan.

The independent variables represented by the effect to the skin, the ingredient on cosmetic, and branding, the dependent variable was the usage of cosmetic. Among the limitations of our investigation include the project which was self-funded, geographically dispersed population, and project scheduled within 6 month period.

Literature Review

Affect to the skin and cosmetic usage. Most of the issues that almost show up are all about the reason for using cosmetic. One of the expectations for variation in cosmetic user is the effect to the skin by using cosmetic. Cosmetic is important in order to look more stylish and beautiful as cosmetic plays a significant role in the creation of an image or being presentable to the others (DeLong and Bye, 1990) and to find marked differences in the level of social visibility in some of cosmetic product usage (Chao and Schor, 1998). At the same time cosmetic usage will give big impact to the skin of users that come in worthy result and ineffective result. Beauty therapist (Rodda, 2004) revealed that a lot of products in the market are harsh on the skin. Many recent studies have examined the accuracy and fairness of portrayals of women (Baldwin, 1996; Snyder, 1996). Whitening and brightening is big business in the Asian beauty industry. Supermarkets and pharmacies carry a range of whitening products that promise to take some of colour away. It also offers a solution for those who suffer signs of premature ageing such as brown spots, blotches and discolouration of the skin.

By overdoing the lightening and whitening process, skin can become sensitive and is eventually damaged (Rodda, 2004). Some Asian people want to look more lightens on their skin, the cosmetic products become an agent to make the transformation. Light-skinned immigrants in the United States make more money on average than those with darker complexions, and the chief reason appears to be discrimination (Loller, 1999). Hersch, (1999) mentioned that most people know the distortion towards the using cosmetic on the skin but they still continue in using the products. Some of the products will bring good result but some others will bring bad impact to the skin.

When using the cosmetic product without correct protection, it can make the skin more sensitive and skin will go on the defensive, thinking that it is being attacked. If these are used without sufficient protection in the form of sunscreens, users will notice more brown patches (Briton, 1999). Nowadays, most of the people are more concerned about the appearance on the skin not the effect to the skin. Cosmetic as a product that will guarantee the changes on the skin becomes highly demanded product that takes the role of satisfying human needs. It is now becoming a trend that cosmetics are considered a part of good grooming as they add sparkle to a girl's eyes and glow to her skin. For example, as the cosmetic industries gain its momentum, Greer (1991) discoveries indicated that through the years, more new products had been introduced and as a result some companies had broadened its product line beyond not only skin care but also including woman's hair care reparation, toiletry items for woman and make up items such as eye shadows, eye liner, mascara, lip color, lip glows, blush rouge, blusher and other cosmetic items that can enlighten women's appearance. Thus, aging population will stimulate the development of age-specific makeup and colour cosmetic products, particularly in the facial makeup industries (Merchandiser 1999).

Brands of the cosmetic product and cosmetic usage. There were studies that have been conducted about relationship between branding of cosmetic and the effect on cosmetic usage. Branding can be in the form of a general name of a product. Through branding it reflect the user perception to the image of the product. Prescott (2006) suggests that brand managers need to keep a close eye on brand-related search terms and adjust paid search and affiliate marketing efforts to keep brand-related searches going to brand sites. Moreover brand also influences the decision to buying or not as the name brands play a major role in purchasing decisions. Advertising and packaging build awareness, which shoppers use them to guide through category clutter and says that past experience plays an important role in product selection and brand loyalty. Marketing mix play an important role in order to introduce the brand of the product and increase the loyalty brand. Develop brand loyalty by consistent advertising which when you're out there all the time, in TV, radio and print, you develop brand loyalty at a higher level. Closely been associated with branding is the price factor that used to influence the cosmetic usage. A good price on a name brand can tip the scales on initial use for consumers, who then stayed with the product based on its performance (Ball, 1989). Unlike the earliest use of scents as primary concerned, the need for better image creation through branding greatly mould the development of cosmetic industry (Hulme, 2001).

Cosmetic usage and the ingredients in the cosmetic product

Ingredients play as one of the important role in safety using the cosmetic product. As mentioned by (EWG, 2007) through a new investigation of 833 name-brand sunscreens, they found widespread evidence that many products on the market are not safe and effective, including one of every eight high-SPF sunscreens that does not protect from UVA radiation. They have also identified 135 products that offer very good sun protection with ingredients that present minimal health risks to users. Repeated studies have found that these nano-ingredients do not penetrate healthy skin, indicating that consumers' exposures would be minimal. Studies on other nano-scale materials have raised concerns about their unique, toxic properties. FDA has failed to approve effective UVA filters available in Europe that, if approved here, could replace nano-scale ingredients (Dodd et al., 2007).

Most of the ingredient in the cosmetic product involve of chemical rather than natural elements that will influence the skin of cosmetic users. According to Rodda (2004), the two common active ingredients in skin care and beauty products are AHA (alpha hydroxyl acid) and BHA (beta hydroxyl acid). In the present study, investigation of 42 cosmetic products based on natural ingredients for content of 11 fragrance substances: geraniol, hydroxycitronellal, eugenol, isoeugenol, cinnamic aldehyde, cinnamic alcohol, α -amylcinnamic aldehyde, eitral, coumarin, and dihydrocoumarin and α -hexylcinnamic aldehyde. Some of the ingredients are natural and do not have any additional preservatives.

The detection of hydroxycitronellal and α -hexylcinnamic aldehyde in some of the products demonstrates that artificial fragrances, i.e., compounds not yet regarded as natural substances, may be present in products claimed to be based on natural ingredients (Rastogi et.al, 1999). The key ingredients which include plants from Asia such as bamboo, water lily and liquorices are influencing the cosmetic usage (Rodda, 2004). Ingredients that meet the need of the aging baby boomer will continue to have an impact (Challener, 2000).

In some countries, there are no strong regulations on safety of ingredients (Rodda, 2004). There's no misrepresentation of ingredients and what they promise to do. Even there is regulation but the cosmetic users also must beware while use the cosmetic products.

RESEARCH METHODOLY AND DESIGN THEORETICAL FRAMEWORK

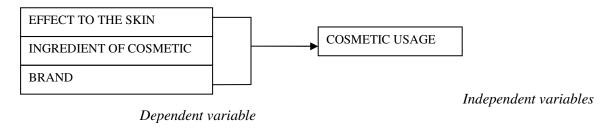


Figure 3.1- Theoretical framework of the study

The study setting is to investigate the profile and the differences of effect of cosmetics usage to skin in East Coast (Terengganu, Pahang and Kelantan). This research include independent variables like effect to the skin, ingredients, and also brand. The dependent variable that our group investigates is cosmetics usage. A descriptive study is undertaken in order to ascertain and be able to describe the characteristics of the variables of interest in a situation.

Hypotheses

The investigation on association using non-directional hypotheses as below:

There is a relationship between the cosmetic usage and the effect to the skin
There is a relationship between the cosmetic usage and the brand of cosmetic product
There is a relationship between the cosmetic usage and the ingredients in the cosmetic product.

Sampling Procedure

Our investigation assumed the population of the study based on the report published by National Census 2000 in Department of Statistics Malaysia at Putrajaya for year 2004. All the main town of the east coast states from Terengganu, Pahang and Kelantan were considered as our data collection point. By excluding the population of those under the age of 16 years old and above 65 years old, we therefore estimated the population of 526,711 for Terengganu, 745,970 from Pahang and population for Kelantan is 744,479 to be our population size. Our sampling size determination followed the suggestion by Sudman (1976). The sample size chosen was 600 respondents. We used convenience technique as the sampling method. Respecting the limitation that the elements in the population do not have any probabilities attached to being chosen as a sample subjects, the research worked through the data collection by ensuring reasonable large sample will be purposively divided and represented.

Data Collection and Instrumentation

The cross-sectional data for the study were collected from the respondents elicited through personally administered questionnaires (PAQ). The data collection activities were confined to a local area and the organizations that were willing and able to assemble groups of employees to respond to the questionnaires at the workplace. Other places involved those at shopping complex, governments' buildings, and bus stations.

The data gathering activities were in the form of survey using a close-ended questionnaire as the instrument. There were 5 sections in our questionnaires. Section A focused on demographic profiles, consisting 8 items. Section B, concerning the effect of cosmetics to the skin, section C concerned on the ingredients on cosmetic, and section D concerned on branding. Our dependent variable was in section E related to cosmetic usage. All the sections consist of 10 questions, each measured by Likert scale, ranging from point 1 to 5.

Findings

The reliability of a measure is established by testing for both consistency and stability. Our analysis of the reliability provides the strong basis for the measurement. Most of the items measured found to be highly reliable as indicated by the alpha score of 0.858; 0.652; 0.897; and 0.815. Following the suggestion by Hair et.al (2004), we therefore moved further with the analysis of data.

ITEMS	FREQUENCIES	(%)	ITEMS	FREQUENCIES	(%)
Gender			Marital Status		
Male	217	34.9	Single	434	69.8
female	405	65.1	Married	172	27.7
State			Others	16	2.6
Terengganu	214	34.4	Occupation		
Pahang	206	33.1	Government	149	24.0
Kelantan	202	32.5	Student	245	39.4
Age			Private	104	16.7
Between 16-20	157	25.2	Housewife	15	2.4
Between 21-30	315	50.6	Self-employed	19	3.1
Between 31-40	96	15.4	Others	90	14.5
41 above	54	8.7	Education Level		
Race			SPM	239	38.4
Malay	551	88.6	Diploma	140	22.5
Indian	25	4.0	Degree	158	25.4
Chinese	30	4.8	Others	85	13.7
Others	16	2.6	Income Level		
			Less than RM1000	366	58.8
			RM1001- RM2000	102	16.4
			RM2001- RM3000	122	19.6
			More than RM3001	32	5.1

Table 1: Frequency Table

Out of 622 total samples, 214 (34.4%) respondents were from Terengganu, 206 (33.1%) from Pahang and 202 (32.5%) from Kelantan. From the frequency table (Table 4.11), the representation of gender was 34.9% male and 65.1% female. The distribution concerning age group displayed that 25.2% respondents were from the age 16-20 years old, 50.6% of those between 21-30 years old, 15.4% from 31-40 years old, and 8.7%) representing the age group of 41 and above.

The marital status categories were divided into three groups. The representations were mostly single with 69.8%, married status representing 27.7%, and 2.6% were from others. Based on occupation there are 149 (24.0%) respondents were from the government sectors, 245 (39.4%) were students, 104 (16.7%) were private institutions, 15 (2.4%) were housewife, 19 (3.1%) were self-employed and 90 (14.5%) were others. The majority, which is 58.8% of the sample was from the income category of RM1000 and below. Those within the income bracket of RM 1001 to RM 2000; RM2001 to RM2001 to RM3000; and RM3000 above, respectively representing 16.4 %, 19.6%, and 5.1% of the sample investigated. The education level of the respondents is 239 from SPM, 140 from Diploma, 158 from Degree and 85 are other.

Table 2: Correlations

	Cosmetic usage (E)	Ingredient (B)	Skin (C)	Branding (D)
Е	1	.411 (.000)	.394 (.000)	.451 (.000)
В		1	.263 (.000)	.337 (.000)
С			1	.168 (.000)
D				1

The result of the correlation coefficient between the ingredient, effect of skin, and branding, towards cosmetic usage displayed the Pearson value of r = 0.411, 0.394, and 0.451 respectively. The above value indicated of a low moderate correlation. However the result is still significant at the significant value of 0.000. It can be concluded that the correlation results for the entire hypotheses were positively related and supported.

Table 3: Model Summary

		R		Std. Error	rror Change Statistics				
		Squar	Adjusted	of the	R Square	F			Sig. F
Model	R	e	R Square	Estimate	Change	Change	Df1	df2	Change
1	.592(a)	.351	.348	.59620	.351	111.37 6	3	618	.000

Table 4: Coefficients (a)

Model	Unstandardized Coefficients		Standardized Coefficients	Т	Sig.
	В	Std. Error	Beta		
1(Constant)	.299	.167		1.793	.073
MEANB	.297	.046	.227	6.435	.000
MEANC MEAND	.274 .349	.033	.279	8.267	.000
	.547	.037	.328	9.481	.000

Dependent Variable: MEANE

The Model Summary displayed the R-Square of 35.1% which was far below the acceptable explanation. However, the independent variables were significant at the value of 0.000. Even though all the three predictors were unable to provide a good explanation to our investigation but their involvement as a construct still discovered to be significance. What is needed for future study is to add a few more other construct so that our prediction would be able to provide a better scenario in the study of cosmetic usage.

Testing of Differences using ANOVA and T Test for Cosmetic Usage

Table 5: Independent Samples Test for GENDER

	Levene	's Test	t-test for	t-test for Equality of Means					
	F	Sig.	T	Df	Sig.2- tailed	Mean Diff'ce	Std. Error Diff'ce	95% Co Lower	nf. Interval Upper
Equal variances assumed Equal variances not assumed	1.078	.300	-2.225 -2.189	620 422.05	.026	138 138	.062	259 261	016 014

Table 6: ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
STATE	3.424	2	1.712	3.163	0.043
AGE	5.594	3	1.865	3.462	0.016
EDUCATION	3.273	3	1.091	2.011	0.111
INCOME	3.602	3	1.201	2.216	0.085

Table 7: Multiple Comparisons for State

		95% Confidence Interval				
(I) State	(J) State	Mean Diff'ce (I-J)	Std. Error	Sig.	Lower	Upper
Terengganu	Pahang	085	.072	.466	25	.08
	Kelantan	.098	.072	.361	07	.27
Pahang	Kelantan	.183(*)	.073	.033	08	.25

Table 8: Multiple Comparisons for Age

			95% Confidence Interval			
(I) Age	e (J) Age	Mean Diff'ce (I-J)	Std. Error	Sig.	Lower	Upper
16-20	21-30	.107	.072	.439	08	.29
	31-40	073	.095	.867	32	.17
	41 and above	187	.116	.371	49	.11
21-30	31-40	181	.086	.150	40	.04
	41 and above	294*	.108	.033	57	02
31-40	41 and above	114	.125	.800	44	.21

Table 9: Multiple Comparisons for Education Level

		95% Confiden	ce Interval			
(I) Edu. Level	(J) Edu.Level	Mean Diff'ce (I-J)	Std. Error	Sig.	Lower	Upper
SPM	Degree	.010	.078	.999	19	.21
	Diploma	157	.076	.161	35	.04
	Others	.029	.093	.990	21	.27
Degree	Diploma	167	.085	.207	39	.05
	Others	.019	.101	.998	24	.28
Diploma	Others	.186	.099	.240	07	.44

Table 10: Multiple Comparisons for Income Level

	95% Confidence Interval				
(I) Inc. Level (J) Inc.Level	Mean	Std.	Sig.	Lower	Upper
	Diff'ce	Error			
Less than RM1000 RM1001-RM2000	069	.082	.839	28	.14
RM2001-RM3000	197	.077	.051	40	.00
> RM3001	043	.136	.989	39	.31
RM1001-RM2000 RM2001-RM3000	129	.099	.560	38	.13
> RM3001	.026	.149	.998	36	.41
RM2001-RM3000 > RM3001	.155	.146	.714	22	.53

Analysis of T-test was conducted for identifying significance differences among the gender profile as to the usage of cosmetic. Table 5 indicated that even though the usage of cosmetic is now becoming common to all gender type, but the degree of their involvement varied. Supporting the traditional approach, female group found to be more attached to the usage of cosmetic as compared to the male group. Another testing procedures using ANOVA were conducted to explore the differences of the cosmetic usage throughout the three states.

As been displayed in table 6 and table 7, there was a significant difference between the state involved, especially when comparing the states of Pahang and Kelantan. As the case of Terengganu and Pahang; Terengganu and kelantan the trend of using demonstrated a similar pattern. Analyzing further on the status of age group as to the usage of cosmetic, our finding revealed that there is a significant difference between the younger groups as to the middle-age group with the p-value of 0.016. The impact of education and income found to be weak when associating them with the usage of cosmetic. Both demographic profiles demonstrated a similar pattern of cosmetic usage. With the p-value of 0.085 and 0.111 for education and income as displayed in table 6, we therefore conclude that there was no significant difference between education level and income categories of the samples as to the usage of cosmetic.

Conclusion

Nowadays cosmetic usage becomes more an important part in our daily life. At the same time cosmetic is widely used as people would feel confidents when using it. Moreover cosmetic industry becomes more developed because of increasing of the demand among the users. The development of the new cosmetic product also influence towards cosmetic industry. The advantages of feeling goods, portraying the beauty, and satisfying egoistic needs should not be regarded as the elements of justifying the end. Some form of controls should be seriously initiated by the authorities for controlling the healthy community throughout the nation.

Our investigation focused on the effect on to the skin by using cosmetic, depending on three factors. The factors consist of effect to the skin, the ingredient on cosmetic and the brand of cosmetic. Moreover brand also influences the customer behavior which it can influence the decision to buying or not as the brands name play a major role in purchasing decisions. There is a need to strike a balance between the healthy living and the need to promote more cosmetic business venturing. Too much regulations imposed to the industry will definitely positioned our cosmetic industry at the least competitive edge. Making it too loose will reflect the poor image of our cosmetic product at the local and international scene. Thus there is a need to formulate the right mechanism which not only lifting the image of the industry but at the same time ensuring that healthy communities keep on shaping the growth of the nation.

Pearson correlation was used to test the relationship between independent variables towards the dependent variable. The empirical results revealed all the independent variables have significant relationship with the dependent variable with weak association for the effect to the skin and the ingredient and moderate association with brand. These findings further provide indication as attempts must be taken to moderate their relationship so that the abuse of marketing efforts, the profit maximization of the industry continuously destroying the social values of the users. In fact earlier finding by Norudin et al. (2006) similarly revealed that understanding the relationship between skin and usage of cosmetic is always a concerned in the cosmetic industry

Future Research

We would like to suggest that any study on usage of cosmetic should consider other variables which were not covered in this research. Among the variables to be considered such as absence of side effect, product quality, fine features, nice colors and durability of the product. In addition, it should also include other variables such as urban and rural people, which are expected to demonstrate possible differences among each user. It is also necessary to investigate the role of education in cosmetic. This assumption maybe used to justify other studies such as work done by Chaou and Schor (1998) which believed that better education will place women in a more important position which more likely demands them to display their positive image at any environment.

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