

## **STUDY OF PERCEPTION AND ATTITUDE TOWARDS GREEN MARKETING OF INDONESIAN COSMETICS CONSUMERS**

Karissa A. Soerjanatamihardja and Ira Fachira  
School of Business and Management  
Institut Teknologi Bandung, Indonesia  
karissa.a@sbm.itb.ac.id

### **Abstract.**

**Background:** In Indonesia, the demand for cosmetics is soon to arise further over the coming years. Claims are that there has been an average annual increase of 9.67% of the years 2010-2015. A global phenomenon in business also has shown that cosmetics companies are shifting towards green movement and sustainability. 64% of Indonesian consumers are said to be prepared to spend extra for products and services that come from companies that represent eco-friendly practices.

**Methods:** An online questionnaire was distributed to 384 respondents, all female inhabitants of Jakarta and Bandung between the ages 16-50, by non-probability purposive sampling. The data was analyzed using factor analysis, multiple linear regression, MANOVA and cluster analyses.

**Results:** Perceived importance of green corporate practices and green marketing mix has influence towards attitude towards green values. A six cluster-solution was identified by variables influenced by Ottman's deep-green sub-segments and attitude towards green values.

**Conclusion:** This study focuses mainly on perceived importance and attitude towards green marketing of cosmetics consumers in Indonesia, providing information of segmentation, perception and attitude to impact businesses embarking green marketing as the holistic concept of their business processes.

**Keywords:** Cosmetics, Consumer Attitude, Consumer Perception, Green Marketing, Ottman's Deep Green Sub-Segments

### **Introduction**

Over the past few years, numerous industries in Indonesia have increased recognition towards green movement. Some companies apply the whole process of creating green products, while others only partial, but this is a good notion of green business development in Indonesia nonetheless. "The green market is not just here to stay, it will also grow and mature, evolving the rules of engagement even further" as stated by Ottman (2011). Researchers have done many studies aimed to explore environmentally conscious behavior as well as measuring the importance of environmental and societal issues. The Natural Marketing Institute (2014) has defined five shades of green consumers in the United States population. These shades include *LOHAS*, *Naturalites*, *Drifters*, *Conventionals* and *Unconcerneds*. In Indonesia, there has not yet been a highlight in research of green marketing, therefore, the green consumer has not yet been defined.

The cosmetics industry in Indonesia has an average annual increase of 9.67% of the years 2010-2015 (Survey BIZTEKA – CCI, 2015). This indicates potential growth for years ahead which gives opportunity for cosmetics companies to strive and innovate to meet market demand. Skin care and make-up products are evolving over the roof the past year that consumers are demanding cosmetic

goods from all over the world purchasing from the nearest and easiest accessed reseller available. Cosmetic products are categorized into skin-care, personal-care, make-up, hair-care and fragrances. A survey has found that 64% of Indonesian consumers are willing to spend extra for products and services that come from companies who are committed to making positive social and environmental impact (The Nielsen Company, 2014). In the global market, many cosmetics companies are taking initiatives in creating more practices that conserve resources and are sustainable in stages of the value chain. L'Oréal Group is one example of a cosmetics company that is converting its production processes in a sustainable approach. The cosmetics company has conducted a "Sustainability Commitment" targeting to have all goals achieved by 2020 that they launched in 2013. They publicize progress reports annually and have stated that by 2015, their production has increased by 26% with an achievement of 56% reduction of CO<sub>2</sub> emissions from their plants and distribution centers (L'Oréal Group, 2015). A British cosmetics company that advocates in green movement called LUSH cosmetics focuses more on animal welfare and products that are handmade with organic ingredients. LUSH cosmetics position themselves in the consumers' eyes as a brand that fully contributes to environment friendly causes and uses this as a competitive strategy that differentiate themselves with other companies which gives them a sense of uniqueness. In Indonesia, a local cosmetics brand that also supports sustainable production process is Wardah. The three values of Wardah is "Earth, Love, Life", to further motivate them to create innovative and environment friendly formulas that can inspire life today and years ahead (Wardah Beauty, n.d.). Green cosmetic brands can be recognized from many different angles, whether the green concept is only acknowledged in production processes or to further promote and position their brands in being a green movement supporter. . In Indonesia, the cosmetics brand that is known for its environment friendly marketing strategies is *The Body Shop*. This brand has a variety of campaigns and adverts that concentrate on their ethical pursuits in keeping their organizational activities green and un-harmful. *The Body Shop* has also done a collaborated campaign with Cruelty Free International in regards to protest against animal testing in cosmetic products mainly targeted towards the Association of South East Asian Nations (ASEAN) during the event of Jakarta Fashion Week in 2013 (Engerbretson, 2013).

### Scope and Objectives

This research is focused on the attitude and perceived importance of cosmetics consumers towards the environment and sustainability in Indonesia. The perception and attitude results are clustered to a set of green interest segmentation influenced by Ottman's Deep-Green Sub-Segments to define of the environmental attitude considered by Indonesian cosmetics consumers. This research focuses specifically on the perception and attitude towards environmentalism. Data collection will be geographically limited to female cosmetics consumers living in the cities of Jakarta and Bandung in Indonesia.

The objectives of this study are presented below:

1. To investigate the perceived importance of Indonesian consumers towards green marketing in cosmetics products and practices.
2. To measure the environment friendly attitude of Indonesian cosmetic consumers.
3. To examine the relationship of perceived importance of green marketing towards environment friendly attitude.
4. To identify green consumer segments in Indonesian cosmetics industry

### Green Marketing

"Green Marketing refers to holistic marketing concept wherein the production, marketing, consumption and disposal of products and services happen in a manner that is less detrimental to the environment with growing awareness about the implications of global warming, non-biodegradable solid waste, harmful impact of pollutants, etc." (Kotler & Armstrong, 2012). Green marketing is linkage of strategy to promote products by using environmental claims whether the company uses their characteristics or system policies and processes of the manufacture or selling them (Prakash, 2002). Bradley (2002) was first to introduce the Green Marketing Mix and is noticed for having major research in this area. Many share the opinion that it is important for the Green Marketing Mix to be

analyzed deeper (Polonsky & Rosenberger, 2001; Prakash 2002). It's been analyzed that when a company has an extreme approach to green its marketing activities, all four Ps are to be shaded green (Kontic & Biljeskovic, 2010).

Fronseca-Santos, et al. (2015) summarized that green consumers prioritize a few aspects and characteristics when buying green products, which are packaging, ingredients, formulations and eco-labels. Green products can always evolve and improve in accordance to ecological standards that fulfil customer expectations which come from the reduction of raw materials used and packaging, using recycled materials, reducing natural resources and waste, making products safer for health and less toxic for the environment, developing reusable products or packaging, recovering products for recycling and designing products that can be buried. (Fronseca-Santos, et al., 2015; Ottman 1993; Lambin 2002).

In Indonesia, The Body Shop is a true contender in using green marketing to reach consumers. The brand is very transparent in its interest of the environment and uses it as part of its promotional and communicational strategies. Stimuli such as statements and photos of animals are presented. In detail, the orangutan figure on the bottom left side of figure 2–5 displays the animal holding a sign that says "every gift you purchase will recover one square meter of the rain forest and protect those inhabiting in it". This campaign shows indication of explicit and direct statement of their efforts in protecting the environment as well as the animals. That being said, The Body Shop's communicational efforts should leave mark of perception towards green marketing. With the constant exposure of labels like "against animal testing" and "100% vegetarian" as stimuli in their stores and social media, aiming to represent the perception that there are concerns for animal cruelty and that it is a serious issue. With the overall efforts of The Body Shop's green marketing efforts, it leaves marks in the consumers' minds that there is a genuine concern for environmental impacts produced by businesses out there and that there are few businesses that are trying to decrease their environmental footprints in their production processes.

### **Ottman's Deep-Green Sub-Segments**

J. Ottman Consulting, Inc. has depicted four sub-segments by consumers' green interests. Resource conservers hate waste, so they favor using reusable objects, recycle papers and cans and try to reduce waste. Health Fanatics have principles based on practice to the consequences of environmental ailments on a person's personal health. They care about the long-term impact upon health, so they prioritize organic foods, natural ingredients and non-toxic processing. Animal lovers are passionate about all animals, mostly to be vegetarian, vegan and support ethical treatment of animals such as protest against animal testing. Outdoor enthusiasts have deep affection towards the outdoors and spend their times doing activities outside such as hiking, skiing and rock climbing. They are deep in thought of minimizing the environmental impact of their recreational activities (Ottman, 2011).

### **Consumer Perception**

Perception is defined as the process by which people select, organize, interpret information to form a meaningful picture of the world (Kotler & Armstrong, 2012). Consumer Exposure, attention to marketing stimuli and ending with consumer interpretation is the three processes of perception (Hawkins & Mothersbaugh, 2010). Interpretation is defined as the stage where a consumer gives meaning to a sensation and relates to how much we grasp and make sense of a coming information based on characteristics of the stimulus, the individual, and the situation. Attention comes before interpretation and occurs when a stimulus activates one or multiple sensory receptor nerves which results are then processed in the brain. Attention can be very selective due to the thousands of stimuli exposures a person experiences which means not all things a person is exposed to is processed. Hawkins & Mothersbaugh (2010) have stated that exposure is the first step to perception and that it occurs when a stimulus comes in contact with a person and that it is an opportunity for a person to pay attention to available information but is not guaranteed to do so. Lake (2009) has declared that in response to a stimulus, consumers subconsciously evaluate their needs, values, and expectations, and then use that evaluation to select, organize, and interpret the stimuli. This process of receiving

and interpreting information is part within an internal process (Lake, 2009). From the abundant exposures of cosmetic ads and reviews from bloggers and celebrities and numerous amount of cosmetic stores open (stimuli), leave many traces of how much cosmetics can impact day-to-day uses of products. Perceived Importance is a narrower concentration of consumer perception. It is the measurement of importance of a certain phenomenon which may convey the expectations for an object to be a certain way. In this study, green marketing is measured through perceived importance to investigate and understand the importance for respondents of having environmentally friendly claims and practices in businesses.

### Consumer Attitude

Attitude is a comprehensive evaluation that conveys how much a person likes or dislikes an object, issue, person or action (Hoyer, et al., 2012). Hawkins and Mothersbaugh (2010) stated that attitude is a lasting arrangement of motivational, emotional, perceptual and cognitive processes with respect to aspect of their environment. There are three components of attitude according to Hawkins & Mothersbaugh which are cognitive (belief), affective (feelings), and behavioral (response tendencies). Cognitive components are the believes about specific attributes. Affective components which comprises of emotion and feelings towards an object and lastly behavioral component is the intentions of behavior a person gives in respect to an object. All three of the components are initiated from different kinds of stimuli which include products, advertisements, situations. Attitude is formed from the stimuli given influenced by their affective, cognitive and behavioral components, which then forms the overall orientation towards an object. The impact of the strength from each of the three components can be divided into a concept developed to be a hierarchy of effects (Solomon, 2016). There is the standard learning hierarchy, which attitude is based on the cognitive information processing, and there is also the low-involvement hierarchy, which is based upon the behavioral learning processes, and lastly there's the experiential hierarchy that is based on hedonic consumption and prioritizes feelings. The effort that The Body Shop has done aims to provide consumers with attitude by standard learning hierarchy. This is because the brand gives distinct effort to convey their message through exposures of texts and pictures, to input into the beliefs of consumers. By using animals as icons of the campaign to communicate the problems faced by animals (animal cruelty), this should trigger the affection and feelings of the consumers which then leads to the intentions of the consumers.

### Conceptual Framework

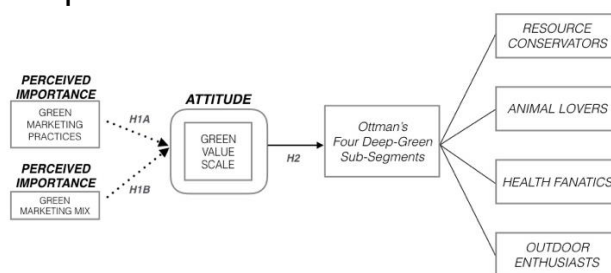


Figure 1 (Conceptual Framework)

Bhatia & Jain (2013) conducted a research mainly focused on the perception of consumers in India about green marketing and measuring their green values. The authors measure perception through the importance of having green marketing practices within a business and how they should be communicating them. The variables derived from the author's research become helpful as part to define the perception on how consumers would like businesses to consider environmental concerns to be impactful in production and selling activities. Past research results (Kong, et al., 2014) also stated that several consumer perceptions towards green products can lead towards buying behavior which are green corporate perception, eco-labels, and green products values of consumers. The authors included the rest of the factors of green packaging and green advertisement. Other researchers such as Blair (1992); Hailes, (2007); Fronseca-Santos, et al., (2015) that were known authors that specialized

in constructing the Green Marketing Mix, containing 4Ps (Product, Price, Place, Promotion) most suitable for companies that concentrate in sustainability and communicating eco-friendly values. The 4Ps are specifically concentrated to measure green marketing activities for cosmetics. Henceforth, the measurement to form a perception comes from the consumers' exposure and their opinion towards them. In this study, measurement is derived from consumers' perception towards the importance of corporate green marketing practices and green marketing mix.

The Green Value Scale by Haws, Winterich & Naylor (2010), is used to measure the attitude of a consumer in aspect of consumption processes influenced by green marketing. This scale will define a consumer's willingness to respond to environmental concerns when purchasing a product. This tool was used by Bhatia & Jain (2013) to study perception and attitude of Indian consumers towards environmental concerns, also showcasing a relationship between the two variables. From the studies above, a hypothesis is formed in order to resolve that there is influence between perceived importance and attitude.

A study (Vanhonacker, et al., 2007) showcasing a model to measure perceived importance and attitude towards farm animal welfare was conducted as variables to segment consumers regarding their viewpoints towards the previous mentioned topic. The consumer profiles are derived from the perceived importance of product attributes and attitude towards animal welfare, which aimed to enhance insights on how to target and communicate in accordance to the established segments. Framework from the study (Vanhonacker, et al., 2007) has become foundation to concept the model of this study, which helps to build hypothesis as shown below.

**H1A:** Perceived importance of green marketing practice positively influences attitude of green values.

**H1B:** Perceived importance of green marketing mix positively influences attitude of green values. The formation of Ottman's Deep-Green Sub-Segments have been divided by the personal interests and values of one's response to environmental concerns. Deeper definition of Perception and attitude towards environmental concerns are obtained from the Four Deep-Green Sub-Segments by Ottman (2011). In order to differentiate each sub-segment, measurement of priority will take place. Through the response of each sub-segment, researcher is able to define whether Ottman's green segmentations exists in the cosmetics consumer population. Resource Conservers will prioritize resource preservation, using reusable and recyclable packaging and products. Animal Lovers prioritize in ethical treatment towards animals and social welfare, responding to eco labels, cruelty free, vegan, vegetarian, and ethical treatment. Health Fanatics focus on their health and well-being, focusing on organic, natural and paraben free ingredients should it not harm their long-term impact on their bodies. Outdoor enthusiasts prioritize on outdoor recreational preservations, taking care of the physical environment surrounding them, 'little goes a long' way products, demanding less impact to the outdoors.

**H2:** Different segments influenced by Ottman's Deep-Green Sub-Segments are resulted from different attitudes of green values.

## Methods

Data collection of this study is gathered by online questionnaire using typeform.com, an online survey builder designed to make respondents answer questions in an aesthetically appealing and efficient way. The questionnaire was distributed through direct personal and group message through *Line* and *WhatsApp*, specifically towards women who purchase and regularly use cosmetic products as part of a checklist requirement prior to sharing of the survey link. The questionnaire was distributed in November & December 2016 and reached a sample size of 384 Respondents.

The sampling frame used in this research is non-probability sampling, with purposive method. This purposive method is used in order to specify the field in which the research is based upon which is cosmetics consumers that regularly use and purchase beauty products that live in the cities of Jakarta

and Bandung. The data was analyzed using factor analysis, multiple linear regression, cluster analyses and MANOVA for significance examination.

Research Variables and Measurements are presented in the table below. All sub-variables are measured with 5-point Likert scale.

**Table 1 (Research Variables)**

INDICATOR		DEFINITION	REFERENCES
Perception	Green Marketing Practices	Importance of Environmental concerns in business and marketing practices. This will define how much consumers would like businesses to consider environmental concerns in production and selling.	(Bhatia & Jain, 2013)
	Green Cosmetics (Marketing Mix)	Consumer perception towards aspects of Green Marketing Mix (4Ps).	(Blair, 1992; Hailes, 2007; Fronseca-Santos, et al., 2015)
Attitude	Green Values	Personal environmental values of respondents. This measures the extent of having the environment in mind when purchasing products and facing lifestyle decisions.	(Haws, et al., 2010)
Deep-Green Sub-Segments	Resource Conservers	A sub-segment of green interest in resource preservation. Respondents prioritize reusable and recyclable packaging and products.	(Ottman, 2011)
	Health Fanatics	A sub-segment of green interest in long-term impact health and anti-toxins. Respondents prioritize in ingredients, organic, natural, paraben free etc.	
	Animal Lovers	A sub-segment of green interest in ethical treatment towards animals. Respondents prioritize on eco-labels, such as cruelty free, vegan, vegetarian, halal, ethical treatments.	
	Outdoor Enthusiasts	A sub-segment of green interest in preservation of outdoor recreational activities. Respondents prioritize 'little goes a long way' products.	

## Results and Discussion

### Reliability and Validity Test

Reliability testing has a criterion of 0.707 in accordance to the rule of thumb for Cronbach's Alpha. All variables are reliable because all are above 0.707 and are accepted for further analyses. KMO test is used for validity testing, which has a criteria of value above 0.5. Instruments are valid as the values are all above KMO standard as well as Bartlett's test are all significant (<0.05). As all instruments are reliable and valid, they are all used for further analyses within this study.

## Multiple Linear Regression

Table 2 Relationship between Perceive Importance towards Attitude

Dependent variable	Independent variable	ANOVA		Coefficient <sup>a</sup>		R <sup>2</sup>
		F	Sig	B	Sig	
Attitude of Green Values	PI GMP	146.173	.000	.318	.000	.434
	PI GMM			.673	.000	

A multi-linear regression was conducted to obtain the relationship linkage between perceived importance of green corporate practice and perceived importance of green marketing mix towards the attitude of green value scale. The table above showcases the result of the linear regression performed. Results of this analysis indicates that perceived importance of green corporate practices and green marketing mix positively influences attitude of green values by 43.4%. This showcases that there are external factors besides perceived importance of corporate practice and marketing mix that may influence attitude of green values which comprises of the remaining 56.6%. As significance value of both perceived importance of corporate practice and marketing mix are below 0.05, shows result that these variables influence attitude of green values. To examine which variable gives bigger influence towards attitude of green value, the beta value in the coefficient table is looked at. Perceived importance of green marketing mix has a higher Beta value which is 0.673 in comparison to corporate practices which is 0.318. This explains that more efforts within the marketing mix of a business gives more influence towards consumers' attitude of green values than corporate practices. The more frequent and suitable of interest of consumers are captures, the bigger influence it has towards consumers' attitude of green values. This shows that set of green marketing mix can be an impactful choice to accomplish a company's marketing objectives in a target market. The two variables PI GMP ( $\beta=.318$ , Sig=.000) and PI GMM ( $\beta=.673$ , Sig=.000) conveys both variables to provide positive and significant impact towards Attitude of Green values. This concludes that **H<sub>1</sub>**: *Perceived importance of green marketing positively influences attitude of green values*, is accepted.

### MANOVA

The MANOVA analysis examines the significant differences of the seven sub-segments influenced by Ottman's Sub-Segment instruments that is based upon the mean score of attitude. Results are that all variables have significant differences with sig. below 0.05 (Zar, 2009). There was a statistically significant difference in Ottman's influenced sub-segments based on the mean score of attitude,  $F(119,2357.24) = 3.902$ ,  $p < 0.0005$ ; Wilk's  $\Lambda = 0.310$ , partial  $\eta^2 = 0.154$ , which means that the null hypothesis is rejected:

**H<sub>2</sub>** (Different segments influenced by Ottman's Deep-Green Sub-Segments are resulted from different attitudes of green values) is accepted.

### Cluster Analysis of Sub-Variables

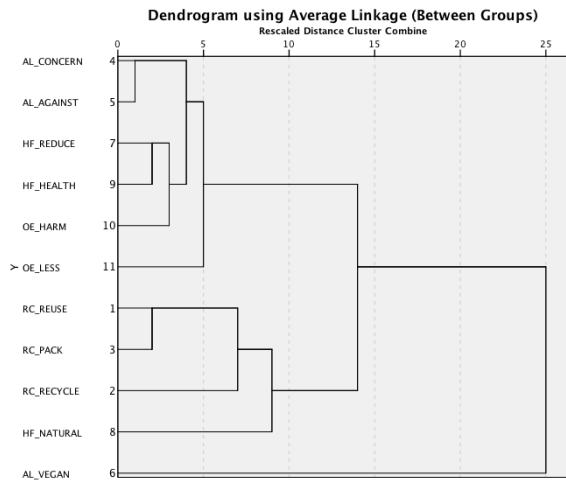


Figure 2 Dendrogram of Sub-Segment Variable Determination

A hierarchical cluster analysis of variables was performed because of the uneven results within the sub-variables that make up one variable of Ottman’s four sub-segments. The dendrogram conveys the inter-relationship between sub-variables that had already been given responses to (through questionnaire), with the use of hierarchical clustering of “variables”. The aim of this examination is to explore and uncover the most suitable sub-segments for this present study, influenced by Ottman’s Deep-Green Sub-Segments (U.S. population) as sub-variables. Originally, there are four sub-segments of interest, but that does not necessarily have to be the same case for the present study because of different demographic, geographic, informational and knowledge backgrounds and influences.

According to the dendrogram above, 7 clusters can be extracted at level 4 distance. First cluster (AL\_CONCERN, AL\_AGAINST), had relationship between the ethical treatments given towards animals when manufacturing products. Second cluster (HF\_REDUCE, HF\_HEALTH, OE\_HARM) had a relationship of reducing harm and risk towards the human body and environment itself. Third cluster (OE\_LESS), was defined as one that thought about the longevity of product usage by using less amount of product, making it longer lasting. Fourth cluster was derived from RC\_REUSE & RC\_PACK, which focused mainly on reusable packaging. Fifth cluster categorized itself as having a lifestyle that focuses on recycling (RC\_RECYCLE). Sixth cluster (RC\_NATURAL) focused mainly on prevention of mixtures of chemicals touching the body as they prioritize natural ingredients. Last cluster was derived from AL\_VEGAN which defined the variable to those that were willing to change the food consumption habit (i.e. vegan or vegetarian) in protection of animals. The seven variable clusters above will become new segmentation factors in the continuance for this study.

**Cluster Analysis of Cases**

Optimal number of clusters were determined through hierarchical clustering (Ward’s Method) followed by a K-means cluster analysis (Vanhonacker, et al., 2007), which resulted in a 6 cluster solution. Below is a table portraying the clusters obtained, profiled by the variables used to classify them. All scores of variables are standardized and is ranged between -1.73 (lowest) and 1.03 (highest) with central score of 0.

Table 3 Cluster Profile of Clustering Variables

	C1	C2	C3	C4	C5	C6
Segment Size (% of Sample)	6.77	10.68	25.78	33.59	11.46	11.72
Attitude Towards Green Values	-0.45	-1.22	0.97	0	-1.02	0.24
Ethical Treatment towards Animals	-1.73	-1.44	0.62	0.12	0.13	0.47
Harm and Risk towards Body and Environment	0.22	-1.57	0.75	-0.08	-0.78	0.65
Product Longevity	-0.30	-0.35	0.56	0.09	-1.56	0.53
Packaging	-0.34	-0.50	0.96	0.16	-1.08	-0.86



Recycle Lifestyle	-0.28	-0.61	1.03	0.09	-0.97	-0.85
Natural Ingredients	0.33	-0.95	1.03	-0.48	-0.72	0.51
Willing to be Vegan or Vegetarian	-0.03	-0.79	0.77	-0.41	-0.51	0.72

**Table 4 Profiling based on age, domicile, purchase frequency and expenses**

	SAMPLE	C1	C2	C3	C4	C5	C6
Segment Size (% of Sample)	(100)	6.77	10.68	25.78	33.59	11.46	11.72
<b>Age (%)</b>							
16-20	(19.8)	5.3	17.1	15.8	32.9	14.5	14.5
21-25	(21.4)	7.3	13.4	18.3	35.3	18.3	7.3
26-30	(16.4)	3.2	12.7	27	39.7	6.4	11.1
31-35	(14.6)	3.6	8.9	19.6	35.7	19.6	12.5
36-40	(3.60)	14.5	14.5	14.5	43.4	7.2	14.5
41-45	(11.2)	16.3	4.7	37.2	30.2	4.7	9.3
46-50	(13.0)	6.0	0	52.1	22	4	16
<b>Domicile (%)</b>							
Jakarta	(68.2)	7.6	10.7	26.7	33.6	9.9	11.5
Bandung	(31.8)	4.9	10.7	23.8	33.6	14.8	12.3
<b>Purchase Frequency (%)</b>							
Before 1 month	(23.7)	2.2	15.4	20.9	26.4	12.1	23.1
1-3 months	(53.6)	7.8	9.7	27.2	35.9	12.6	6.8
3-6 months	(15.1)	5.2	8.6	29.3	36.2	10.3	10.3
More than 6 months	(7.6)	20.7	6.9	24.1	34.5	3.4	13.8
<b>Expense per purchase (%)</b>							
<Rp500.000	(38.1)	4.8	10.9	23.8	32.7	10.9	17
Rp500.001-1.500.000	(46.1)	9.0	11.3	25.4	32.8	11.9	9.6
Rp1.500.001-3.000.000	(11.7)	4.4	8.9	31.1	40	11.1	4.4
>Rp3.000.000	(3.9)	6.7	6.7	33.3	33.3	13.3	6.7

Out of the overall six clusters, three clusters (C<sub>3</sub>, C<sub>4</sub>, C<sub>6</sub>) have above average center scores for attitude which comprises of 70% of the respondents in this study. This shows that there is a larger percentage of respondents that have better attitude towards green values in comparison to those who have less good attitude. Those clusters with better attitudes towards green values also has impact towards the green interests of environmental concerns. For instance, cluster 4 has effects of four sub-variables that are higher than of overall central score, cluster 6 effects in five sub variables and lastly, cluster 3 that has larger rates of green interest of all sub-variables. The remaining 30% of the overall respondents that are comprised of three clusters (C<sub>1</sub>, C<sub>2</sub>, C<sub>5</sub>) are those that have a lower than average central score of attitude. These clusters are those that have less interest towards green interests as more sub-variables in these clusters are below the central score of attitude towards green values.

Cluster 1 (Sample Size=6.77%) has attitude score below mean value, but is still the not the lowest unlike cluster 2 and 5 which has a significantly low mean value. Respondents scored a bit higher than mean value of 0.22 for the support of using products with reason that it does not harm their bodies and environment. A score above average is also for natural ingredients used in products with value of 0.33. This shows that they are intrigued by products that use "nature" attributes. Overall, this cluster supports the use of organic and natural ingredients in products with reasons that it should reduce risk of illnesses on the human body and prevent harm to the environment.

Cluster 2, which comprises of 10.58% of respondents have the lowest value of attitude (score=-1.22). With the largest score below the mean of attitude, this leads to lower than average scores of all variables as well. This exhibits the segment of respondents that do not have distinct interest in the certain green variables. This shows that very low attitude scores result in little interest in green movement.

Cluster 3 represents candidates that have the highest attitude mean score in the sample which consists of 25.78% respondents. Their average standardized attitude score is 0.97 and results in other variables to be the highest scores compared to the other clusters. This indicates that there are consumers with high attitude towards green value that are attentive to multiple green interests.

Cluster 4 consists of most respondents from the sample which is 33.59%. These respondents are on the very spot of average score, which is 0. This expresses that biggest percentage of respondents have on average point score of attitude towards green values. This cluster consists of respondents that have above-average interest in ethical treatment towards animals, longevity of product use, eco-friendly packaging and interest in recycling. Although the respondents in this cluster have higher scores for ethical treatment of animals, they would not change their consumption habit and lifestyle to become vegan.

Cluster 5 (sample size=11.46%) has a significantly low mean score of attitude towards green value of -1.02. This cluster is comprised with respondents that have relatively low mean scores for the rest of the variables except for ethical treatment towards animals (0.13). This means that even though they do have a low mean score for other variables, they can still respond positively to stimuli exposures that communicate animal welfare.

Cluster 6 consists of respondents that have a relatively high central score of attitude towards green value which is comprised of 11.72% of respondents. With an attitude mean score of 0.24, this cluster has relatively high scores for all variables except reusable packaging and recycling lifestyle. In fact, the scores are significantly lower than the average scores which indicates that they do not attentively respond to reusing products or packaging and also doesn't have distinct interest in brands using recycled material for packaging. This cluster also doesn't project the recycling lifestyle (-0.85).

To summarize, the group composed of C<sub>3</sub> and C<sub>4</sub> can be considered into a marketing opportunity segment to target, as these have average and above score of attitude, which also leads to triggering more green interests. These clusters comprise 59% of the sample, therefore constituting a noteworthy market. In combination of the two clusters, respondents score relatively high on ethical treatment towards animals and reusable packaging as well as recycle of packaging. These green interests indicate a big part of what The Body Shop has been communicating in their integrated marketing communications which means that respondents of this segment potentially or already are desired target market for this brand. These clusters range on all age groups, but mostly ages 41-45 are of those in cluster 3 and ages 16-20 is cluster 4. This indicates different highlights in green interest in case marketers would like to specifically target clusters separately. These clusters also don't have significant differences in percentage of domicile, so respondents of Jakarta and Bandung are spread evenly.

### **Limitations & Further Research**

Considering that this research studies perception by assessing perceived importance of variables green corporate practice and green marketing mix, there may be other components of perception that could be measured. Therefore, further research regarding an experimental study that explicitly aims to test the influence of exposure and what kind of senses are most suitable to form perception of green marketing could be examined. As the collection of data is recorded from those of mid-high economic class specifically in Jakarta and Bandung, it cannot define the holistic perception of green marketing in Indonesia. Therefore, further research can be done in accordance to different areas, both urban and rural, to see if there are differences in perception towards green marketing.

## Conclusions

Demand for cosmetics in Indonesia will show to increase further over the coming years. Surveys have shown that since 2010 to 2015, there has been an average annual increase of 9.67%. Cosmetics companies are shifting towards green movement and sustainability as well and in addition, 64% of Indonesian consumers are said to be prepared to spend extra for products and services that come from companies that represent eco-friendly practices. The objective of this research is to study the perception of Indonesian consumers towards green marketing in cosmetic products and practices as well as measure the environment friendly values and to identify green consumer segments within the Indonesia cosmetics Industry.

Conceptual framework was constructed by model combination of perceived importance and attitude that is taken construct from Vanhonacker, et al. (2007), which variables are taken from study by Bhatia and Jain (2013). The framework also includes classification of attitude towards Ottman's Deep-Green Sub-segments. To gather data, an online questionnaire was distributed to 384 respondents, all female inhabitants of Jakarta and Bandung between the ages 16-50 which is analyzed using factor analysis, multi-linear regression and correlation to test relationships and also cluster analysis for classification of cases.

Results have shown to fulfil objective of studying the perception of Indonesian consumers towards green marketing that there is a positive response to perceived importance of businesses considering green practices and is quite high, as well as the aspects of green marketing mix that can be used as marketing efforts to promote cosmetics. The respondents highlight product and promotion to be more important in green marketing mix.

In order to measure environment friendly attitude of respondents, this present study uses Haws, Winterich & Naylor's Green Value Scale (2010) by examining the overall attitude and has resulted in positive responses as well, mostly by importance for respondents to use products that do not harm the environment but less of their willingness to consider environment when purchasing products.

This present study analyzed the relationship amongst perceived importance towards attitude and has shown that there is an influence between perceived importance of green corporate practices and marketing mix towards attitude of green values with green marketing mix as higher influence than of corporate practice.

One of the aims of this study is to identify green consumer segments and is examined through cluster analysis. Ottman's FOUR sub-segments were re-clustered into 7 sub-variables, which shows that green interests are different in the US compared to Indonesia, due to different exposures and attitudes of importance towards environmental welfare. There is a linear relationship between Ottman's influenced sub-segments towards and attitude of green value, although not very strong.

A six-cluster solution was obtained from this study with segment variables of both attitude and 7 of Ottman's influenced sub-variables. Three clusters had scores above average of central rate and consisted of 70% of the respondents. Clusters 3 and 4 are potential marketing segments that can be targeted for green marketing. The two groups comprise of 59% of the sample which constitutes a considerable market. The highlighted green interests triggered in this segment is ethical treatment towards animals and packaging, both reusable and recycling. Other factors can also be considered such as communication that's focus is on prevention of harming the environment as well as human body itself, so by using ingredients that would not leave environmental footprints and are safe on the body.

## References

Aggarwal, M., 2014. Customer Perception of Green Marketing. *IRACST - International Journal of Commerce, Business and Management*, 3(1), pp. 35-43.

- Beautylish, Inc., 2013. *Beautylish Inc. Forum - How Often do You Makeup Shop?*. [Online] Available at: <https://www.beautylish.com/t/riycq/how-often-do-you-makeup-shop> [Accessed January 2017].
- Bhatia, M. & Jain, A., 2013. Green Marketing: A Study of Consumer Perception and Preferences in India. *Electronic Green Journal*, Issue 36.
- Bizteka – CCI, 2015. *Perkembangan Pasar Industri Kosmetik Di Indonesia, 2010 – 2015*. [Online] Available at: <http://cci-indonesia.com/2016/06/17/perkembangan-pasar-industri-kosmetik-di-indonesia-2010-2015/> [Accessed 3 September 2016].
- Blair, I., 1992. Greener Products. In: M. Charter, ed. *Greener Marketing: A Responsible Approach to Business*. Illustrated ed. s.l.:Sheffield: Greenleaf, p. Chap. 6.
- Bradley, N., 2007. *The Green Marketing Mix*. [Online] Available at: <http://www.wmin.ac.uk/marketingresearch/Marketing/greenmix.htm> [Accessed August 2016].
- Candan, B. & Yildirim, S., 2013. Investigating the Relationship between Consumption Values and Personal Values of Green Product Buyers. *International Journal of Economics and Management Sciences*, 2(12), pp. 29-40.
- Charter, M. & Polonsky, M. J., 1999. *Greener Marketing: A Global Perspective on Greening Marketing Practice*. 2nd Edition ed. s.l.:Sheffield: Greenleaf.
- Creswell, J. W., 1994. *Research Design: Qualitative & Quantitative Approaches*, John W. Creswell. 15 ed. s.l.:Sage Publications.
- Draper, N. R. & Smith, H., 1998. *Applied Regression Analysis*. Third Edition ed. s.l.:Wiley-Interscience.
- Engerbretson, M., 2013. Cosmetics Testing on Animals in the Spotlight at Jakarta Fashion Week: ASEAN Takes Notice. *The Huffington Post*, 29 10.
- Fabrigar, L. R., MacCallum, R. C., Wegener, D. T. & Strahan, E. J., 1999. Evaluating the Use of Exploratory Factor Analysis in Psychological Research. *Psychological Methods*, 4(No.3), pp. 272-299.
- Fishbein, M. & Ajzen, I., 1975. *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. s.l.:s.n.
- Fronseca-Santos, B., Corrêa, M. A. & Chorilli, M., 2015. Sustainability, Natural and Organic Cosmetics: Consumer, Products, Efficacy, Toxicological and Regulatory Considerations. *Brazilian Journal of Pharmaceutical Sciences*, Jan/Mar, 51(1), pp. 17-26.
- Hailes, J., 2007. *The New Green Consumer Guide*. London: Simon & Schuster.
- Hawkins, D. I. & Mothersbaugh, D. L., 2010. *Consumer Behavior: Building Marketing Strategy*. 11th Edition ed. New York(New York): McGraw-Hill/Irwin Companies Inc..
- Haws, K. L., Winterich, K. P. & Naylor, R. W., 2010. *Green Consumer Values*. 3rd Edition ed. s.l.:s.n.
- Hoyer, W. D., MacInnis, D. J. & Pieters, R., 2012. *Consumer Behavior*. 6th Edition ed. s.l.:Cengage Learning.
- Kong, W., Harun, A., Sulong, R. S. & Lily, J., 2014. The Influence of Consumers' Perception of Green Products on Green Purchase Intention. *International Journal of Asian Social Science*, 4(8), pp. 924-939.
- Kontic, I. & Biljeskovic, J., 2010. Greening the Marketing Mix: A Case Study of the Rockwool Group. May.
- Kotler, P. & Armstrong, G., 2012. *Principles of Marketing*. 14th ed. ed. New Jersey: Prentice Hall.
- Krejcie, R. V. & Morgan, D. W., 1970. Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, Volume 30, pp. 607-610.
- L'Oréal Group, 2015. *Sharing Beauty With All: The L'Oréal Sustainability Commitment*, s.l.: s.n.
- Lake, L. A., 2009. *Consumer Behavior For Dummies*. s.l.:John Wiley & Sons.
- Lambin, J. J., 2002. *Marketing Estratégico*. Madrid: McGraw Hill.
- Mooi, E. & Starstedt, M., 2011. Chapter 9: Cluster Analysis. In: *A Concise Guide to Market Research*. s.l.:Springer-Verlag Berlin Heidelberg, pp. 237-284.
- National Marketing Institute (NMI), 2014. *The State of Sustainability in America Report: Trends & Opportunities*, s.l.: s.n.

- Nunnally, J. C., 1978. *Psychometric Theory*. 2nd Edition ed. New York: McGraw-Hill.
- Ottman, J. A., 2008. The Five Simple Rules of Green Marketing. *dmi Review*, October, 19(4), pp. 65-69.
- Ottman, J. A., 2011. *The New Rules of Green Marketing*. San Francisco(California): Berrett-Koehler Publishers, Inc..
- Ottman, J., 1993. *Green Marketing: Challenges and Opportunities for New Marketing Age*. Lincolnwood(Illinois): NTC Business Books.
- Polonsky, M. J. & Rosenberger III, P. J., 2001. Reevaluating Green Marketing: A Strategic Approach. *Business Horizons*, 44(5), pp. 21-30.
- Prakash, A., 2002. Green Marketing, Public Policy and Managerial Strategies. *Business Strategy and the Environment*, Issue 11, pp. 285-297.
- Queensland Government, 2006. *Green Marketing: The Competitive Advantage of Sustainability*. [Online]  
Available at: <http://www.derm.qld.gov.au/register/po1860aa.pdf>  
[Accessed September 2016].
- Saudale, V., 2016. *Indonesian Cities Now Charging Shoppers for Plastic Bags - Jakarta Globe*. [Online]  
Available at: <http://jakartaglobe.id/news/indonesian-cities-now-charging-shoppers-plastic-bags/>  
[Accessed 2 September 2016].
- Solomon, M. R., 2016. *Consumer Behavior: Buying, Having, and Being*. 12th Edition ed. s.l.:Pearson.
- The Nielsen Company, 2014. *Indonesian Consumers are Willing to Put Their Money Where Their Heart is When it Comes to Buying Goods and Services From Companies Committed to Social and Environmental Responsibility*. [Online]  
Available at: <http://www.nielsen.com/id/en/press-room/2014/indonesian-consumers-are-willing-to-put-their-money-where-their-heart-is-when-it-comes-to-buying-goods-and-services-from-companies-committed-to-social-and-environmental-responsibility.html>  
[Accessed August 2016].
- The World Bank, 2014. *World Bank and Environment in Indonesia*. [Online]  
Available at: <http://www.worldbank.org/en/country/indonesia/brief/world-bank-and-environment-in-indonesia>  
[Accessed 28 January 2017].
- Tuma, M. N., Scholz, S. & Decker, R., 2009. The Application of Cluster Analysis in Marketin Research: A Literature Analysis. *Business Quest Journal*, Volume 14.
- Vanhonacker, F., Verbeke, W., Van Poucke, E. & A.M. Tuytens, F., 2007. Segmentation Based On Consumers' Perceived Importance and Attitude Toward Farm Animal Welfare. *International Journal of Sociology of Food and Agriculture*, December, Vol. 15(3), pp. 84-100.
- Wardah Beauty, n.d. *Wardah Beauty*. [Online]  
Available at: <http://www.wardahbeauty.com>  
[Accessed 2016].
- Widjojo, H. & Yudianto, B. R., 2015. Factors Considered by Indonesian Youth in Buying Green Product. *Purushartha Journal*, March.III(1).
- Zar, J. H., 2009. *Biostatistical Analysis*. 5th Edition ed. s.l.:Pearson.
- Zikmund, W. G., Babin, B. J., Carr, J. C. & Griffin, M., 2009. *Business Research Methods*. 8th Edition ed. s.l.:South-Western College Pub.