Cosmetics Buying Behavior of Korean, Japanese and Chinese Female University Students as Determined by Their Lifestyle

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Abstract

This study aimed to investigate buying behaviors of cosmetics for female university students in Korea, China, and Japan as related to their lifestyles. For data analysis, a survey was conducted to total 12,000 females university students in 4-year university in Seoul, Tokyo, and Beijing from March 11 to April 14 in 2002. A total of 1,165 were collected and 1,127 were finally used in the analysis (361 in Korea, 381 in China, and 385 in Japan). Data were analyzed by factor analysis, cluster analysis, frequency analysis, Cronbach's a, t-test and Duncan's Multiple Range test by using SPSS statistics package.

The lifestyle segmentations identified 5 groups for Korea, 5 groups for China and 2 groups for Japan. Segments in each country showed significant differences in selected variables, the satisfaction with cosmetics and in places to purchase cosmetics.

Key words : buying behavior of cosmetics, lifestyle segmentation, selection criteria, satisfaction with cosmetics.

I. Introduction

Modern women tend to coordinate their clothing style with their hairstyle, accessories, makeup, etc. as the standard of living and consumption increases and their social activity is broadened. Makeup in particular is getting important in modern women's life as it is easy to change and express themselves in various forms without spending lot of money[1]. For example, female university students get actively involved in the consumption to manage and invest in themselves by buying cloth and cosmetics for dolling themselves up, and even dietary food, and using a professional shop for skin care and makeup[2]. As they have great interests in appearance and supplementary method like makeup, they are regarded as important buyers and consumers of cosmetics. In addition, the range of cosmetic market is increasing with openness of distribution market and development of technology.

This study investigated the differences in cosmetic purchasing behaviors among the groups determined by lifestyles of female university students in Korea, China, and Japan. The results of this study may provide information needed to

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[1] K. Y. Jo and T. S. Yu, "A Study on Level of Clothing Proximity and Cosmetics Proximity determined by Make-up Level," *The Korean Society of Fashion Business* 2 (1998) : 66-76.

[2] J. Y. Lee, "A Study on the Female University Students' Lifestyle Patterns-focused on the Cosmetics Buying Behavior." (Master's thesis, Jeon Buk University, 1998).

develop strategies for product manufacturing and sales plan in the international level, which is necessary for domestic cosmetic manufacturers and distributors to know in order to penetrate not only into domestic market but also into Chinese market of great potential and the advanced Japanese market.

Ⅱ. Review of Literature

1. Korean Women's Lifestyle Segmentations and Cosmetics Buying Behaviors

Female student has been segmented in the previous studies and the name and the characteristics of the segments are as follows. Kim[3], in his research on female university students' lifestyle focusing on purchase/consumption behaviors of cosmetics, extracted 7 factors. The innovative was interested in challenges, gender equality and career, while the traditional sought frugality and tradition. The utilitarian were domestic, interested in cultural activities, and influential in others' purchase behaviors, while the sociable acquired much information mainly through wide connections and preferred discount stores. The achievement-oriented hoped to have more opportunities to display their talent and were interested in media, influencing discussions with others, while the separatist were highly favorable to independence and sensitive to media advertising and wanted to have more leisure time and regular life. Finally, the idealistic were interested in fashion and tended to buy expensive items.

Lee[4] presented 5 types of lifestyle in his lifestyle analysis centered on female university students' cosmetic-buying behaviors. The inactive & depressed were not interested in how they looked and avoid social participation, while the progressive & active continuously sought their self-development and had a strong sense of independence and subjectivity. The socially conscious were hardly interested in their appearance but in social issues, especially political issues. The epicurean were very sensitive to their looking and fashion, and favorable to luxury brands, while the conservative & frugal were not favorable to latest fashion and women's career but to large family system.

In his research on information-searching behaviors and post-purchase satisfaction of cosmetics Jo[5] divided the respondents into 4 types. The self-centered & socially-indifferent who pursued fashion and western lifestyle, the family-oriented who were future-oriented, pragmatic and indifferent in sociable relationship, the inactive & independent who were conscious of others and indifferent in fashion, society and family, the self-centered & socially-participating who enjoyed group activities, and the extrovert who were active in fashion-oriented and sociable activities but indifferent in social/family issues. The inactive & depressed were inactive in their general life, showed the lowest ego for certain products, while the active & aggressive showed strong interest and response in their usual life, with the highest tendency of impulse purchase. The fashionable were more likely to follow the current fashion but not interested in social career or conservatism, with the lowest tendency of planed purchase but relatively higher ego for certain products, while the diligent & frugal tended to implement planned purchases and had the highest ego for certain products with lower disposition to change their consumption.

Kim[6] pointed out that Korea's young gene-

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[3] T. W. Kim, "A Study on Female College students' Lifestyle-Purchasing, Consumption Behavior toward Cosmetics," (Master's thesis, Kyung Hee University, 1991).

[4] H. K. Lee, "A Demonstrative Study on Marketing Strategy based on Lifestyle-Analysis on Cosmetics Purchasing Behavior of Female College Students," (Master's thesis, Dong Duk Women's University, 1993).

[5] Y. W. Jo, "A Study on Lifestyle and Purchasing Behavior of Cosmetics Consumer," (Master's thesis, Jeon Nam University, 2000).

[6] K. H. Kim, "A Demonstrative Study on Searching of Korean New Generation and Characteristics of Lifestyle-Based on 18~24 years old females living in Seoul," (Master's thesis, Korea University, 1994).

ration pursued latest fashion and style, preferred high-class consumption and prestigious brands, sought active change and individual life, had material and individual disposition, accepted the western-style diet, and got highly interested in entertainment, TV and ads. Jang[7], in his research on makeup item-buying behaviors by lifestyle, divided customers into the basic make-up seekers, the individual make-up seekers, the reasonable lifestyle seekers, and the conscious make-up seekers, while Jo[8] presented the fashionable, the frugal, the socially conscious, the socially active and the innovative, among which only the fashionable had significant difference, suggesting they preferred foreign items to domestic ones, in her research on lifestyle of foreign item-preferring group. In a study on cosmetics-buying behaviors, Lee[9] categorized female university students in Jeonbuk area into the self-devoted to both school and family, with a strong sense of gender equality, the realistic & fashionable who were highly sensive to fashion and material achievements, the extroversive who were progressive and open, the epicurean who were not interested in school and family but in impulsive purchase and opposite sex, and the inactive & depressed who valued family but avoided social participation. Gong[10] classified consumers into the innovative purchasing new items before anyone else, the fashionable being sensitive to fashion and conscious of others' evaluation, the family-oriented being relatively conservative, the conservative being interested in

traditional culture, and the price-oriented who tended to purchases on bargain sale or comparing prices before purchase.

2. Cross-Cultural Lifestyle Segmentations and Cosmetics Buying Behaviors

According to the research on lifestyle of Koreans and Japanese by Lee and Kim[11], Japanese were classified into the social & cultural, the economical, the self-fulfilling and the easygoing, while Koreans into the new-generation, the individual, the economical and the easygoing. Lifestyle leaders in Japan turned out working women in the 30s and 40s in contrast to their Korean counterparts in the same age group who were less self-centered, inactive and socially indifferent. The comparison research on lifestyle of Koreans, Americans and Japanese[12] showed that all respondents from the three countries in common were environmentally conscious, fashion-pursuing, careful in purchases through price comparison, and likely to stay at home on holidays or weekends. As for differences by nation, Japanese were very original in what they wear but unsociable with others, hesitating to give advice or ask for others' opinion when shopping. Americans tended to lead relationships, try to do anything challenging, hardly express their opinion on prohibitions but actively comply with established rules. Finally, Koreans preferred simple and ordinary outfit to original one.

Cho, Oh and Dong[13] compared learning style,

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[7] I. I. Jang, "A Study on Consumer Purchasing Behavior of Color Cosmetics -Based on Analysis of Lifestyle," (Master's thesis, Dong Guk University, 1997).

[8] H. M. Jo, "A Study on the Foreign Cosmetics Preference as determined by Lifestyle," (Master's thesis, Kon Kuk University, 1998).

[9] J. Y. Lee, Op. cit.

[10] Y. M. Gong, "Purchasing Behaviors of Female University Students for Cosmetics-Focused on Lifestyle of 10~20 years old Female," (Master's thesis, Chung Ju University, 1999).

[11] K. C. Lee and W. S. Kim, "A Study on Lifestyle of Korea and Japan Life action," The Mok Won Journal 31, (1997) : 25-33.

[12] Dae Hong Communications, Koreans, 1989~1995 The Changing Lifestyle, Dae Hong Communications, Seoul, (1996).

[13] J. Cho, M. I. Oh and H. Y. Dong, "The Cross-cultural Study of Lifestyles and Consumption Behaviors by Using Chinese, American, Japanese," Korean College Students. Report Prepared by the National Institute of Management Science (1994).

life style and consumption pattern of university and undergraduate school students in Taiwan, America, Japan and Korea, and suggested that students in Japan and Korea were fashion-leading, while ones in Taiwan were conservative and less independent, and the American ones were highly independent. As for life style analysis of Chinese customers, Kim[14] categorized university students' point of view into practical learning style, diverse leisure activities, realistic occupation, and open mind set, and pointed out that the China's young generation disregarded Chinese traditional ideas, rapidly accepted foreign new culture, enjoyed sports, foreign movies and foreign brands, and liked stock trading and high-quality products but did not separate themselves from the Chinese social reality, representing China's modern consumption pattern.

As seen above, female university students' lifestyle has been classified into the active & diligent with desirable life style, the present-oriented with individual and realistic life style, the frugal & socially conscious, and the inactive & introspective. It has been also suggested that most female university students were pursuing innovative tendency, a sense of achievement and independence, and originality.

Ⅲ. Methodology

1. Research Questions
The purposes of the present study were (1) to see if the female college students in Korea, China and Japan can be segmented based on their lifestyle characteristics and (2) to investigate the differences in cosmetic buying behavior among the lifestyle segments of each country.

2. Data Collection
Regarding the data collection, the present study was conducted through a pilot test and the final test. The preliminary survey was conducted to see if the measure used are clear and understandable. The preliminary questionnaire was administered to 70 college women attending at a 4-year college in Seoul from March 5 to 6 in 2002. The 58 questionnaires which were usable for the data analysis were analyzed to check the reliability of the measure and the reliability was over 0.88. Since the degree was high, the questionnaires used in the preliminary survey were applied in this study without change. To develop the questionnaire for Japan and China, the final questionnaire was then translated into Japanese and Chinese by professors from Japan and China. In order to minimize the misunderstanding in translation, each translated survey questionnaires were translated back into Korean for unity and accuracy of the questionnaire.

For this study, 4-year universities in Seoul, Tokyo, and Beijing, the capital of each country, were selected. The survey was conducted by using 12,000 female university students (400 per each country) from March 11 to April 14 in 2002. A total of 1,165 (378 in Korea, 396 in China, and 391 in Japan) were collected and 1,127 were finally used in the data analysis (361 in Korea, 381 in China, and 385 in Japan). The analysis conducted in the study includes factor analysis, cluster analysis, frequency analysis, Cronbach's α, t-test and Duncan's Multiple Range test by using SPSS statistics package.

3. Measuring Instruments and Data Analysis
The questionnaire was composed of 11 cosmetics' purchasing behavior items including each of purchasing motive, principal information sources, buying criteria of basic cosmetics, buying spots and with 7 satisfaction attributes of cosmetics developed by the present researchers, and 50 lifestyle items developed by the present researchers and adapted from the previous

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[14] W. Kim, "A Study on Pattern and Characteristic of Chinese Lifestyle," (Master's thesis, Sun Gkyun Kwan University, 1999).

[15] J. Cho, M. I. Oh and H. Y. Dong, *Op cit.*

studies[15]. Five point Likert scales were used for measuring the lifestyle. The analysis conducted in the study with SPSS statistics package includes factor analysis, cluster analysis, frequency analysis, Cronbach's α, t-test and Duncan's Multiple Range test.

IV. Results

1. Lifestyle Segmentation

For segment the respondents, factor analysis and cluster analysis were used. Varimax rotation was used and eigenvalues over 1 and factors with factor loading over .3 was retained.

1) Korea

A Total of 9 factors were extracted from 50 lifestyle items with explanatory adequacy of 52.24% ⟨Table 1⟩. The factors were named based on the factor loadings: Factor 1 as Active Leadership, Factor 2 as Fashion Leader, Factor 3 as Frugality, Factor 4 as Gender Equality & Self-realization, Factor 5 as Socially Conscious, Factor 6 as Optimistic Extroversion, Factor 7 as Individual Freedom, Factor 8 as Diligence, and finally Factor 9 as Makeup & Fashion. Factor 1 of Active Leadership occupied 8.09% of the total variance, while Factor 2 of Fashion Leader accounted for 6.98%. The reliability of the lifestyle-related items tested by Cronbach' α. was .85.

Five clusters were extracted by using hierarchical cluster analysis and F-test through Ward's interval scale method. ⟨Table 2⟩ shows results of K-means Cluster Analysis on the 5 clusters. As a result of F-test, all of the segments differed significantly in the 9 factors. Cluster 1 was named as Passive Indifferent who were frugal and indifferent in current fashion, Cluster 2 as Apparence-Oriented Introvert who were inactive but cared about how they looked to others, Cluster 3 as Self-Centered Extrovert who pursued self-centered lifestyle and cared about how they looked to others, Cluster 4 as Progressive Fashion leader who actively followed current fashion and participated in social activities, and finally Cluster 5 as Traditional Individualist who were sensitive to fashion, indifferent in social issues and conservative in many areas. Many respondents fell into Passive Indifferent and Traditional Individualist.

2) China

As a result of rotating variables through Varimax method, totally 14 factors were extracted from the 50 items with explanatory adequacy of 51.59%. The reliability of the lifestyle-related items tested by Cronbach's α. was .68. As seen in ⟨Table 3⟩, the respondents were classified into 14 factors according to characteristics of the variables: Factor 1 as Gender Equality & Self Realization, Factor 2 as Social Consciousness, Factor 3 as Makeup & Fashion, Factor 4 as Realism, Factor 5 as Conventionalism, Factor 6 as Frugality, Factor 7 as Active Leadership, Factor 8 as Individuality, Factor 9 as Economy, Factor 10 as Activity, Factor 11 as Responsibility, Factor 12 as Optimistic Passiveness, Factor 13 as Responsible Happiness, and Factor 14 as Fashion Leader.

Five clusters were extracted by using hierarchical cluster analysis and F-test through Ward's interval scale method. ⟨Table 4⟩ shows the results of K-means Cluster Analysis on the 5 clusters. Cluster 1 was named as Socially Conscious who were modest and interested in social issues, Cluster 2 as New Generation Leader who were realistic, active and interested in fashion, Cluster 3 as Inactive & Self-centered who were passive and self-confident, Cluster 4 as Frugal & Individual who were free, frugal and individual, and finally Cluster 5 as Stubborn & Responsible who were not interested in how they looked, not economical nor realistic but highly responsible.

3) Japan

The reliability of the lifestyle-related items turned out .68 through Cronbach's α. The total of 50 questions were reduced to 9 factors with explanatory adequacy of 52.24%. ⟨Table 5⟩ shows 14 factors classified by characteristics of the variables, such as Factor 1 as Sociable Ex-

⟨Table 1⟩ Factor Analysis of Korea's Female University Students' Lifestyle

Factors	Items	Factor Loading	Eigen value % of Var Cum %
Factor 1 : Active Leadership	40. I enjoy playing sports myself.	0.61	4.04
	41. I like things bright, splendid and stimulating.	0.64	8.09
	44. I am highly original.	0.54	8.09
	45. I frequently attend sociable gatherings.	0.50	
	46. My life is driven by my own desire and hope.	0.41	
	47. I often lead consultation with others.	0.40	
	48. I am interested in every issues, and like trying things new.	0.55	
	49. I prefer going out rather than staying at home on holidays.	0.72	
	50. I am highly interested in my hobbies.	0.67	
Factor 2 : Fashion Leader	13. I always consider makeup style and accessories when dressing.	0.52	3.49
	15. People often compliment on my makeup.	0.57	6.98
	16. I frequently change clothes.	0.75	15.07
	17. People often call me fashion leader.	0.77	
	18. I tend to concentrate on overall harmony of fashion.	0.67	
	19. I easily accept new fashion.	0.58	
	20. I frequently advise others on their fashion.	0.56	
Factor 3 : Frugality	25. I usually turn off unnecessary gas/electricity consumption.	0.44	3.29
	26. I spend my allowance according to the plan.	0.47	6.58
	27. I spend money only with systematic budget.	0.72	21.65
	28. I compare product prices of diverse stores before purchase.	0.76	
	29. I always check for product prices before purchase.	0.77	
	30. I mainly use sale periods and discount stores.	0.69	
	31. I have high responsibility.	0.51	
Factor 4 : Gender Equality & Self-Realization	1. Both working husband and wife should cooperate in housework.	0.47	2.89
	2. Women's social participation is desirable.	0.62	5.79
	3. I want to keep my job even after marriage.	0.53	27.43
	7. Women's life should be focused on family.	0.68	
	8. Husband should have stronger authority at home than wife.	-0.69	
	9. Marriage is essential.	-0.63	
	36. I want to develop my talent.	0.41	
Factor 5 : Socially Conscious	21. I am interested in economy and business.	0.75	2.89
	22. I am interested in politics.	0.79	5.78
	23. I am interested in social issues and policies.	0.84	33.21
	24. I am partly responsible for social problems.	0.53	
Factor 6 : Optimistic Extro-version	32. I am highly self-confident all the time.	0.47	2.69
	33. My partner should have good family background, education, appearance and occupation.	0.35	5.38
	37. I am optimistic about my life	0.73	38.59
	38. I am easygoing and liberal.	0.72	
	39. I enjoy getting to know others.	0.56	
Factor 7 : Individual Freedom	4. Love needs not lead to marriage.	0.46	2.09
	10. It is meaningless to be respected without happy family.	-0.37	4.17
	14. I want to learn makeup technique proper for me.	0.40	42.76
	42. I tend to precisely express my opinion to others.	0.38	
	43. I do not much care about what others think about me.	0.66	
Factor 8 : Diligence	5. I want to do something utilizing my major.	0.60	2.07
	6. I want to keep my current habits and practices.	0.59	4.14
	35. I always try to learn something new.	0.37	46.90
Factor 9 : Makeup & Fashion	11. I believe in makeup's effect.	0.71	2.00
	12. I try to get experts' advice on makeup technique.	0.68	4.00
	14. I want to learn makeup technique proper for me.	0.35	50.90
	34. I go to university for a better job rather than for studies.	0.40	

⟨Table 2⟩ Clusters by Korean Female University Students' Lifestyle

Factors	Clusters					F	p
	Passive Indifferent (n=92)	Appearance-oriented Introvert (n 60)	Self-centered Extrovert (n=40)	Progressive Fashion Leader (n=58)	Traditional Individua-list (n=92)		
Factor 1: Active Leadership	- 0.68	0.18	0.38	0.55	0.05	21.04	.000
Factor 2: Fashion Leader	-0.60	0.18	- 0.61	0.67	0.56	37.07	.000
Factor 3: Frugality	0.19	0.18	0.45	-0.35	0.11	5.78	.000
Factor 4: Gender Equality & Self Realization	0.25	0.32	0.13	0.69	-0.83	36.77	.000
Factor 5: Social Consciousness	0.02	· 0.12	-0.50	1.04	· 0.37	28.47	.000
Factor 6: Optimistic Extroversion	0.15	- 1.29	1.17	0.20	0.06	72.94	.000
Factor 7: Individual Freedom	- 0.13	- 0.18	- 0.55	0.00	0.48	10.20	.000
Factor 8: Diligence	-0.36	-0.05	0.42	0.28	0.03	6.37	.000
Factor 9 : Makeup & Fashion	-0.53	0.64	0.91	0.21	-0.15	29.24	.000

troversion, Factor 2 as Pursuing Fashion (Leader), Factor 3 as Frugality, Factor 4 as Makeup & Fashion, Factor 5 as Socially Conscious,, Factor 6 as Gender Equality & Self Realization, Factor 7 as Independent Individuality, Factor 8 as Responsible Leader, and Factor 9 as Optimism. Factor 1 occupied 8.37% of the total variance, while Factor 2 accounted for 7.73%.

Two clusters were extracted by using hierarchical cluster analysis and F-test through Ward's interval scale method. ⟨Table 6⟩ shows results of K-means Cluster Analysis on the 2 clusters. 215 respondents were categorized in Cluster 1 and 154 in Cluster 2. Cluster 1 was named as Inactive & Self-centered who were interested in self-realization, economical, introversive and indifferent in fashion, while Cluster 2 as Hedonic & Active who were fashion-oriented and active, and liked consumption and

leading others.

2. Cosmetic Buying Behaviors

Significant differences were found in monthly expenditure for cosmetics, the buying motives, information sources, the place to purchase and the satisfaction with selective attributes of cosmetics among the segments in at least one country. No difference was found in the persons to influence when shopping cosmetics among the segments in any of the country.

1) Monthly Expenditure for Cosmetics

The monthly expenditure level for cosmetics was tested to see if significant differences exist among the lifestyle segments. Significant differences were found among the segments ⟨Table 7⟩. The passive indifferent reported the smallest amount of money spent for purchasing

⟨Table 3⟩ Factor Analysis of Chinese Female University Students' Lifestyle

Factors	Items	Factor loading	Eigen value % of Var Cum %
Factor 1: Gender Equality & Self Realization	1. Both working husband and wife should cooperate in housework. 2. Women's social participation is desirable. 3. I want to keep my job even after marriage. 5. I want to do something utilizing my major. 14. I want to learn makeup technique proper for me.	0.75 0.71 0.59 0.44 0.40	3.21 6.42 6.42
Factor 2: Socially Conscious	20. I frequently advise others on their fashion. 21. I am interested in economy and business. 22. I am interested in politics. 23. I am interested in social issues and policies.	0.44 0.63 0.71 0.54	2.16 4.32 10.74
Factor 3: Makeup & Fashion	11. I believe in makeup's effect. 12. I try to get experts' advice on makeup technique. 13. I always consider makeup style and accessories when dressing. 38. I am easygoing and liberal. 39. I enjoy getting to know others.	0.53 0.61 0.36 0.50 0.52	2.09 4.18 14.92
Factor 4: Realism	33. My partner should have good family background, education, appearance and occupation. 34. I go to university for a better job rather than for studies. 35. I always try to learn something new. 50. I am highly interested in my hobbies.	0.60 0.70 0.37 0.33	1.87 3.73 18.66
Factor 5: Conventionalism	6. I want to keep my current habits and practices. 7. Women's life should be focused on family. 8. Husband should have stronger authority at home than wife. 9. Marriage is essential.	0.35 0.73 0.64 0.59	1.82 3.64 22.30
Factor 6: Frugality	28. I compare product prices of diverse stores before purchase. 29. I always check for product prices before purchase. 27. I spend money only with systematic budget.	0.77 0.76 0.40	1.79 3.57 25.87
Factor 7: Active Leadership	42. I tend to precisely express my opinion to others. 46. My life is driven by my own desire and hope. 47. I often lead consultation with others. 48. I am interested in every issues, and like trying things new.	0.38 0.55 0.69 0.46	1.75 3.50 29.37
Factor 8: Individuality	32. I am highly self-confident all the time. 43. I do not much care about what others think about me. 44. I am highly original. 49. I prefer going out rather than staying at home on holidays.	0.45 0.48 0.58 0.38	1.67 3.35 32.72
Factor 9: Economy	19. I easily accept new fashion. 25. I usually turn off unnecessary gas/electricity consumption. 26. I spend my allowance according to the plan.	−0.51 0.67 0.56	1.62 3.24 35.96
Factor 10: Activity	40. I enjoy playing sports myself. 41. I like things bright, splendid and stimulating.	0.58 0.76	1.62 3.24 39.20
Factor 11: Responsibility	30. I mainly use sale periods and discount stores. 31. I have high responsibility.	0.68 0.43	1.60 3.21 42.41
Factor 12: Optimistic Passiveness	36. I want to develop my talent. 37. I am optimistic about my life. 45. I frequently attend sociable gatherings.	0.53 0.47 0.58	1.57 3.15 45.55
Factor 13: Responsible Happiness	4. Love needs not lead to marriage. 10. It is meaningless to be respected without happy family. 24. I am partly responsible for social problems.	0.58 0.37 0.54	1.54 3.08 48.63
Factor 14: Fashion Leader	15. People often compliment on my makeup. 16. I frequently change clothes. 17. People often call me fashion leader. 18. I tend to concentrate on overall harmony of fashion.	0.43 0.50 0.61 0.41	1.48 2.96 51.59

⟨Table 4⟩ Clusters by Chinese Female University Students' Lifestyle

Factors	Clusters					F	p
	Socially conscious (n=92)	New generation leader(n=21)	Inactive & self-centered (n=44)	Frugal & individual (n=119)	Stubborn & responsible (n=68)		
Factor 1: Gender Equality & Self-Realization	−0.24	1.47	0.92	−0.59	0.34	56.25	.000
Factor 2: Social Consciousness	0.65	0.42	1.04	−0.31	0.14	37.40	.000
Factor 3: Makeup & Fashion	−0.08	1.26	0.08	0.13	−0.54	16.61	.000
Factor 4: Realism	−0.09	0.97	0.54	−0.05	−0.43	13.33	.000
Factor 5: Conventionalism	0.11	0.55	0.04	−0.06	−0.20	2.77	.027
Factor 6: Frugality	−0.34	0.25	−0.32	0.36	0.00	8.90	.000
Factor 7: Active Leadership	0.06	1.05	−0.78	0.04	0.02	14.42	.000
Factor 8: Individuality	0.72	0.89	−0.59	0.56	0.19	46.98	.000
Factor 9: Economy	0.27	0.08	0.21	0.04	−0.63	9.96	.000
Factor 10: Activity	0.10	0.82	−0.60	0.04	0.20	9.17	.000
Factor 11: Responsibility	0.01	0.20	0.09	0.37	0.51	9.75	.000
Factor 12: Optimistic Passiveness	−0.15	0.24	0.18	0.23	0.43	6.21	.000
Factor 13: Responsible Happiness	0.02	0.60	0.11	0.14	−0.53	7.91	.000
Factor 14: Fashion Leader	0.38	1.08	0.20	−0.35	−0.14	16.54	.000

cosmetics per month, while the largest amount was reported by the traditional individualist. The appearance-oriented introvert responded that they spend 20,000~49,900 won, and the expenditure amount by the progressive fashion leaders and the self-centered extrovert fall in the range of 50,000 won to 69,900 won.

For Chinese, there were no significant differences in monthly expenditure for cosmetics among the lifestyle segments. For Japanese subjects, almost 84 percent responded that they spend less than 5,000 yen per month. Japanese respondents showed significant differences in monthly expenditure for cosmetics among the segments. Inactive & self-oriented showed greater percentage of spending less than 5,000 yen, while hedonic & active showed more percentage to spend more than 5,000 yen.

⟨Table 5⟩ Factor Analysis of Japanese Female University Students' Lifestyle

Factors	Items	Factor loading	Eigen value % of Var Cum %
Factor 1 : Sociable Extroversion	5. I want to do something utilizing my major.	0.40	4.19
	38. I am easygoing and liberal.	0.64	8.37
	39. I enjoy getting to know others.	0.73	8.37
	40. I enjoy playing sports myself.	0.64	
	41. I like things bright, splendid and stimulating.	0.74	
	42. I tend to precisely express my opinion to others.	0.63	
	45. I frequently attend sociable gatherings.	0.61	
	46. My life is driven by my own desire and hope.	0.53	
	49. I prefer going out rather than staying at home on holidays.	0.34	
Factor 2 : Pursuing Fashion (Leader)	15. People often compliment on my makeup.	0.72	3.86
	16. I frequently change clothes.	0.55	7.73
	17. People often call me fashion leader.	0.67	16.10
	18. I tend to concentrate on overall harmony of fashion.	0.67	
	19. I easily accept new fashion.	0.71	
	20. I frequently advise others on their fashion.	0.71	
Factor 3 : Frugality	25. I usually turn off unnecessary gas/electricity consumption.	0.57	3.01
	26. I spend my allowance according to the plan.	0.73	6.02
	27. I spend money only with systematic budget.	0.70	22.12
	28. I compare product prices of diverse stores before purchase.	0.63	
	29. I always check for product prices before purchase.	0.64	
	30. I mainly use sale periods and discount stores.	0.63	
Factor 4 : Makeup & Fashion	6. I want to keep my current habits and practices.	0.46	2.96
	11. I believe in makeup's effect.	0.62	5.92
	12. I try to get experts' advice on makeup technique.	0.49	28.04
	35. I always try to learn something new.	0.55	
	48. I am interested in every issues, and like trying things new.	0.32	
Factor 5 : Socially Conscious	21. I am interested in economy and business.	0.70	2.84
	22. I am interested in politics.	0.83	5.69
	23. I am interested in social issues and policies.	0.86	33.72
	24. I am partly responsible for social problems.	0.68	
Factor 6 : Gender Equality & Self Realization	1. Both working husband and wife should cooperate in housework.	0.66	2.62
	2. Women's social participation is desirable.	0.77	5.23
	3. I want to keep my job even after marriage.	0.59	38.95
	4. Love needs not lead to marriage.	0.28	
	7. Women's life should be focused on family.	-0.45	
	8. Husband should have stronger authority at home than wife.	-0.47	
	49. I prefer going out rather than staying at home on holidays.	0.34	
Factor 7 : Independent Individuality	14. I want to learn makeup technique proper for me.	0.68	2.34
	33. My partner should have good family background, education, appearance and occupation.	-0.49	4.68
	36. I want to develop my talent.	0.53	43.63
	43. I do not much care about what others think about me.	0.45	
Factor 8 : Responsible Leader	31. I have high responsibility.	0.80	1.67
	32. I am highly self-confident all the time.	0.51	3.35
	47. I often lead consultation with others.	0.53	32.72
Factor 9 : Optimism	9. Marriage is essential.	-0.51	2.10
	10. It is meaningless to be respected without happy family.	0.32	4.20
	34. I go to university for a better job rather than for studies.	-0.45	52.24
	37. I am optimistic about my life.	0.55	
	44. I am highly original.	0.44	
	48. I am interested in every issues, and like trying things new.	0.33	
	50. I am highly interested in my hobbies.	0.39	

〈**Table 6**〉 Clusters by Japanese Female University Students' Lifestyle

Factors	Clusters		F	p
	Inactive & Self-centered(n=215)	Hedonic & Active (n=154)		
Factor 1 : Sociable Extroversion	-0.22	0.31	-5.33	.000
Factor 2 : Fashion Leader	-0.15	0.21	-3.46	.001
Factor 3 : Frugality	0.30	-0.42	7.22	.000
Factor 4 : Makeup & Fashion	-0.14	0.19	3.19	.002
Factor 5 : Social Consciousness	0.17	-0.24	3.99	.000
Factor 6 : Gender Equality & Self Realization	0.49	-0.68	13.57	.000
Factor 7 : Independent Individuality	0.02	0.02	0.40	.016
Factor 8 : Responsible Leader	0.21	0.29	-4.90	.000
Factor 9 : Optimism	0.00	0.01	0.10	.023

〈**Table 7**〉 Monthly Expenditure for Cosmetics based on Lifestyles

Count Col Pct	Clusters-Korea					Row Total	
	Passive Indifferent	Appearance-oriented Introvert	Self-centered Extrovert	Progressive Fashion Leader	Traditional Individualist		
Less than 20,000 Won	55(60.4)	24(40.7)	10(25.6)	17(29.3)	31(34.4)	137(40.7)	χ^2 = 34.99
20,000~49,900	28(30.8)	26(44.1)	16(41.0)	23(39.7)	34(37.8)	127(37.7)	p = 0.000
50,000~69,900	3(3.3)	7(11.9)	8(20.5)	12(20.7)	11(12.2)	41(12.2)	
More than 70,000 Won	5(5.5)	2(3.4)	5(12.8)	6(10.3)	14(15.6)	32(9.5)	
Column Total	91(100.0)	59(100.0)	39(100.0)	58(100.0)	90(100.0)	337(100.0)	

Count Col Pct	Clusters-Japan		Row Total	
	Inactive & Self-centered	Hedonic & Active		
Less than 2,000 Yen	96(44.9)	55(35.9)	151(41.1)	χ^2 = 11.10
2,000~4,900	94(43.9)	61(39.9)	155(42.2)	p = 0.004
More than 5,000 Yen	24(11.2)	37(24.2)	61(16.6)	
Column Total	214(100.0)	153(100.0)		

2) The Satisfaction with Cosmetics

There were significant differences only in the satisfaction with the quality, container design, color, the variety of product and the convenience in use of cosmetics among the segments determined by lifestyles. No significant differences were found in the satisfaction with fragrance and the price of cosmetics among the lifestyle segments. Regarding the satisfaction with the quality of cosmetics purchased, the passive indifferent and the appearance-oriented introvert were significantly different from traditional individualist and the progressive fashion leader. The traditional individualist showed the highest satisfaction with the quality of cosmetics they bought.

In terms of the satisfaction with the container design, the appearance-oriented introvert (lowest satisfaction) were significantly different with the progressive fashion leaders and the traditional individualist(higher satisfaction). With regards to the satisfaction with the color of cosmetics, the passive indifferent with the lowest satisfaction differed significantly from the appearance-oriented introvert and the chic extrovert with satisfaction with satisfaction level in the middle, and from the progressive fashion leader and the traditional individualist with the highest satisfaction levels.

For Chinese students, there were significant differences in the quality, fragrance and the color of cosmetics among the segments deter-

⟨Table 8⟩ The Satisfaction with Cosmetics based on Lifestyles

Cosmetics' Satisfaction	Cluster - Korea					F	p
	Passive Indifferent	Appearance-oriented Introvert	Self-centered Extrovert	Progressive Fashion Leader	Traditional Individualist		
Quality	3.40 A[a]	3.42 A	3.48 AB	3.63 AB	3.72 B	3.06	.017
Container Design	3.23 AB	3.13 A	3.48 BC	3.56 C	3.44 BC	3.67	.006
Color	3.23 A	3.53 B	3.55 B	3.65 C	3.68 C	6.24	.000
Variety of Product	3.10 A	3.12 A	3.35 AB	3.46 B	3.34 AB	3.39	.010
Convenience in Use	3.33 A	3.34 A	3.48 AB	3.65 B	3.51 AB	2.74	.029
Cosmetics' Satisfaction	Cluster - China					F	P
	Socially Conscious	New Generation Leader	Inactive & Self-centered	Frugal & Individual	Stubborn & Responsible		
Quality	2.77 A[a]	3.43 B	3.21 BC	2.94 AB	2.88 AB	3.70	.006
Fragrance	2.87 A	3.43 C	3.24 BC	3.00 AB	2.85 A	4.41	.002
Color	3.03 A	3.48 C	3.38 BC	3.14 AB	3.29ABC	3.46	.009
Cosmetics' Satisfaction	Cluster - Japan					t	P
	Inactive & Self-centered		Hedonic & Active				
Variety of the Product	3.35		3.17			2.25	.025

[a]: indicates that the significant differences among groups(.01) out of Duncan's multiple range test.

mined by lifestyles. Regarding the satisfaction with the quality, Duncan's multiple range test showed that the new generation leaders and the socially-oriented were significantly different. New generation leaders showed the highest satisfaction levels with the quality of cosmetics. On the other hand, the socially-oriented showed the lowest levels with the quality and the color of cosmetics. For the fragrance of cosmetics, stubborn & responsible reported the lowest satisfaction level, while New generation leaders showed the highest satisfaction levels. Duncan's multiple range test showed that the new generation leaders and inactive & self-centered were significantly different from and the socially-oriented and stubborn & responsible. New generation leaders showed the highest satisfaction levels with the fragrance of cosmetics followed by the inactive & self-centered. On the other hand, the socially-oriented showed the lowest levels with the quality and the color of cosmetics. In terms of the satisfaction with the color of cosmetics, all segments reported the satisfaction level above the average. The socially-oriented were significantly different from the

new generation leaders and inactive & self-centered. The new generation leaders and inactive & self-centered were most likely to be satisfied with the color, while the socially-oriented were least likely to be satisfied. The Japanese showed significant differences in the satisfaction with the variety of the products. Inactive & self-centered were more satisfied with the variety than hedonic & active were.

3) Purchase Motive

With regard to the motives of buying cosmetics ⟨Table 9⟩, there was no significant difference among the Korean and Japanese segments grouped by their lifestyles.

For Chinese, almost 50 percent of all the Chinese respondents indicated that they buy cosmetics because they don't like the ones they currently own, followed by the motives that they use up the one they were using. The differences in the segments showed that, socially conscious, frugal & individual, stubborn & responsible tended to buy when they don't like the ones currently used. However, new generation leaders tended to buy when they use up the one

⟨**Table 9**⟩ Cosmetics Purchase Motive based on Lifestyles

Count Col Pct	Clusters-China					Row Total	
	Socially Conscious	New Generation Leader	Inactive & Self-centered	Frugal & Individual	Stubborn & Responsible		
Use up the one they were using	31(31.3)	8(38.1)	20(48.8)	32(26.9)	15(22.1)	106(30.5)	
Don't like the ones they currently own	48(48.5)	3(14.3)	13(31.7)	70(58.8)	34(50.0)	168(48.3)	$\chi^2 = 33.46$ $p = 0.006$
Inexpensive or price reduction, money leeway	4(4.0)	1(4.8)	2(4.9)	4(3.4)	4(5.9)	15(4.3)	
Stress management and for pleasure	6(6.1)	5(23.8)	4(9.8)	4(3.4)	6(8.8)	25(7.2)	
Impulse buying	10(10.1)	4(19.0)	2(4.9)	9(7.6)	9(13.2)	34(9.8)	
Column Total	99(100.0)	21(100.0)	41(100.0)	119(100.0)	68(100.0)	348(100.0)	

they were using, followed by the motives of stress management and for pleasure.

4) Information Sources

With regard to the information sources used before buying cosmetics 〈Table 10〉, there was no significant difference among the Korean and Japanese segments grouped by their lifestyles. Regarding the overall Chinese information sources, more than 30 percent respondents get information from general women's magazines and cosmetic magazines, and almost 28 percent get it from acquaintance such as friends · peers · sisters. Only 8 percent collect information from the salesclerk or stores.

In terms of the differences in information sources, Chinese students differed significantly among the lifestyle segments; The socially conscious and stubborn & responsible were more likely to gather information before buying cosmetics from general women's magazines and beauty magazines, which followed by acquaintance such as friends · peers · sisters. frugal & individual also showed tendencies to get information through general women's magazines

and beauty magazines, followed by personal experiences and acquaintance. New generation leaders collect information on cosmetics through acquaintance and them mass media, while inactive & self-centered do it from mass media and acquaintance.

5) Selection Criteria for Basic Cosmetics

There were significant difference in selection criteria used for basic cosmetics among Japanese segments, not among Korean and Chinese segments. 〈Table 11〉 shows the overall pattern that more than 38 percent of all Japanese students regarded the suitability for the skin as the most important criteria when they buy basic cosmetics, followed by the function and efficacy. On the other hand, the sense of touch was the least important criteria. Regarding the differences among the segments, inactive & self-centered reported that they rate the suitability of the basic cosmetics for their skin as the most important criteria, while hedonic & active rate the function and efficacy as the most important one.

6) Places to Purchase Cosmetics

〈Table 10〉 Information Sources based on Lifestyles

Count Col Pct	Clusters-China					Row Total	
	Socially Conscious	New Generation Leader	Inactive & Self- centered	Frugal & Individual	Stubborn & Responsible		
Mass Media(TV.)	20(20.8)	5(2.8)	15(34.9)	14(12.3)	8(12.3)	62(18.3)	
Women & beauty Magazines	29(30.2)	4(19.0)	10(23.3)	35(30.7)	24(36.9)	102(30.1)	$\chi^2 = 33.30$ $p = 0.007$
Personal Experience (Sample usage)	16(16.7)	0(0.0)	2(4.7)	28(24.6)	7(10.8)	53(15.6)	
Department, Cosmetic Shop (sales clerk)	7(7.3)	3(14.3)	2(4.7)	9(7.9)	9(13.8)	30(8.8)	
Acquaintance(friends · peers · sisters. etc.	24(25.0)	9(42.9)	14(32.6)	28(24.6)	17(26.2)	92(27.1)	
Column Total	96(100.0)	21(100.0)	43(100.0)	114(100.0)	65(100.0)	339(100.0)	

⟨Table 11⟩ Selection Criteria for Basic Cosmetics based on Lifestyles

Count Col Pct	Clusters-Japan		Row Total	
	Inactive & Self-centered	Hedonic & Active		
Price	24(11.2)	16(10.5)	40(10.9)	
Function and Efficacy	69(32.2)	63(41.2)	132(36.0)	$\chi^2 = 10.36$ p 0.035
Suitability for the Skin (skin condition)	95(44.4)	46(30.1)	141(38.4)	
The Sense of Touch	10(4.7)	15(9.8)	25(6.8)	
etc.(brand image, color & fragrance, container design, advertising)	16(7.5)	13(8.5)	29(7.9)	
Column Total	214(100.0)	153(100.0)	367(100.0)	

With regard to the places to purchase cosmetics, there was no significant difference among the Korean segments grouped by their lifestyles. ⟨Table 12⟩ shows that the overall pattern regarding the place to shop cosmetics, almost 35 percent of Chinese students buy from department stores and 25 percent from specialty stores, which followed by supermarkets and/or drugstores. The smallest portion of the students purchase through Internet and catalogue shopping. The segments were significantly different in the place to shop for cosmetics. Socially conscious showed the higher percentage of purchasing cosmetics through Internet or catalogue shopping. New generation leaders were more likely to purchase cosmetics from the specialty stores, while inactive& self-centered do it from supermarket and/or drugstores. frugal & individual and stubborn & responsible tended to buy from department stores.

For Japanese, the largest percentage of them reported that they buy cosmetics form supermarkets and/or drugstores, which followed by the department stores. That is quite different from China in that Chinese students to shop at department stores or specialty stores. Japanese students showed significant differences in the place to shop cosmetics. Inactive & self-cen-

tered tended to shop through Internet or catalogue shopping followed by department stores, while hedonic & active tended to buy at department stores followed by supermarkets and/or drugstores.

Ⅴ. Conclusions and Implementations

Since foreign cosmetics companies enter into Korean market and the domestic market is oversupplied, Korean cosmetics companies are looking for a chance to penetrate foreign markets to broaden their market power. Especially information about consumption behavior of customers and their cosmetics purchase in China, unlimited market, and Japan that has advanced in the industry would be very helpful for domestic companies to penetrate those markets and set marketing strategies and product development plan by consumers' buying behavior.

Overall satisfaction with the cosmetics, the new generation leaders showed the highest satisfaction in China; the socially conscious showed the least. This may be interpreted that new generation leaders may purchase higher quality cosmetics than socially conscious. The satisfaction differences with cosmetics in Korea

⟨Table 12⟩ Place to Purchase Cosmetics based on Lifestyles

Count Col Pct	Clusters-China					Row Total	
	Socially conscious	New Generation Leader	Inactive & Self-centered	Frugal & Individual	Stubborn & Responsible		
Department Stores	28(28.3)	3(14.3)	12(29.3)	57(48.3)	21(30.9)	121(34.9)	
Specialty Stores	30(30.3)	10(47.6)	8(19.5)	23(19.5)	15(22.1)	86(24.8)	χ^2 61.81
Discount Stores	7(7.1)	2(9.5)	2(4.9)	6(5.1)	7(10.3)	24(6.9)	$p = 0.000$
Markets	9(9.1)	2(9.5)	1(2.4)	8(6.8)	9(13.2)	29(8.4)	
Internet, Catalogue Shopping	16(16.2)	0(0.0)	2(4.9)	17(14.4)	9(13.2)	44(12.7)	
Supermarkets & Drug Stores	9(9.1)	4(19.0)	16(39.0)	7(5.9)	7(10.3)	43(12.4)	
Column Total	99(100.0)	20(100.0)	41(100.0)	118(100.0)	68(100.0)	347(100.0)	

Count Col Pct	Clusters-Japan		Row Total	
	Inactive & Self-centered	Hedonic & Active		
Department Stores	45(21.1)	47(30.7)	92(25.1)	
Specialty Stores	9(4.2)	7(4.6)	16(4.4)	
Discount Stores	21(9.9)	14(9.2)	35(9.6)	χ^2 11.74
Markets	36(16.9)	37(24.2)	73(19.9)	$p = 0.039$
Internet, Catalogue Shopping	15(7.0)	6(3.9)	21(5.7)	
Supermarkets & Drug stores	87(40.8)	42(27.5)	129(35.2)	
Column Total	213(100.0)	153(100.0)	366(100.0)	

originated from different attitudes toward cosmetics and do not using similar quality of cosmetic products by the lifestyle segmentation. In other words, progressive fashion leaders may have more possibility of using high quality cosmetics than passive indifferent and appearance-oriented introvert.

In order to expand into Korean market, those companies need to have competitive price and quality improvement, since Korean consumers buy cosmetics in a discount store and get information from acquaintance such as friends, peer and sisters. In Japan, they have to not only make consumers recognize their brand with continuous advertisement and effective sales strategies in order to strengthen customers' brand loyalty but also acquire distribution lines in supermarkets or drugstores for customers to easily access to their products. Most lifestyle segmentations in China use women's magazines and/or beauty magazines as a main information source excluding new generation leader. By using advertisement on women's magazines and beauty magazines may increase brand awareness and consumer loyalty. Also, Chinese consumer buy cosmetics through department stores, companies

should take advantage of department stores as an essential distribution channel. Beyond this study, it would be also very helpful for the growth of Korean cosmetic industry studying marketing cases of Korean companies and problems and improvement of distribution structure in China and Japan.

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