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## **PROPENSITY TO UNDERGO COSMETIC SURGERY AND SERVICES IN SEOUL**

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### **ABSTRACT**

Aim/Purpose	The focus of this study is to find the relationship between the components in Theory of Reasoned Action (TRA) such as attitude, subjective norms (Media), subjective norm (celebrity), psychological attribute (self-esteem) and psychological attributes (social status) which influence Seoul Korea female intention to undergo cosmetic surgery in Seoul, Korea.
Background	South Korea was ranked third in the world of cosmetic surgery in 2015. The Korean cosmetic surgery market is a promising market with 24% market share of the total world market. The market data about female willingness to undergo cosmetic surgery strongly suggests that marketers who work in the beauty and health industries associated with cosmetic surgery should pay attention to Seoul Korean women who are in the age group under 40 years old as the potential target market. In Korea, cosmetic surgery is frequently mentioned in normal conversation as a general topic and it is naturally settled as a culture.
Methodology	The Seoul Korean female behavior with respect to use of cosmetic surgery is approximately determined by factors underlying the consumer's behavioral intent. Thus, the theory of Reasoned Action (TRA) is used in this study because it attempts to explain consumer intentions and has a strong power of prediction of utility for a wide range of human behavioral attributes such as attitude, subjective norms (Media), subjective norm (celebrity), psychological attribute (self-esteem) and psychological attributes. A survey was conducted in Seoul, Korea where 400 female were interviewed by self-administrated questionnaire. Descriptive analysis, exploratory factor analysis and multiple regressions were used to examine the factors that influence Seoul Korean female intention to engage in cosmetic surgery.

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Contribution	This research provides an insight to the health and beauty industry, marketers, decision makers and academics on the factors that influence Seoul Korea female intention to engage with cosmetic surgery.
Findings	According to the research findings, Seoul Korean female attitude towards cosmetic surgery are generally positive, or favorable intentioned. That is to say, they usually think that the most effective way to improve their appearance and social status is to undergo cosmetic surgery. The study results (both qualitative and quantitative) support the proposition that the variables such as the media and the celebrities play important role in influencing females to do surgery. The results also provide important information to formulate and design strategies for the development and effective conduct of advertisements and promotions of cosmetic surgery. Lastly, other potential influencing factors were psychological attributes which are self-esteem and social status.
Recommendations for Practitioners	It is suggested that psychologists can try to find the clinical roles in helping the cosmetic surgery patients by identifying patients who may not adjust well psychologically or psychosocially after surgery. Psychologists can examine the issues related to cosmetic surgery due to the increasing popularity and the link between appearance, body image, eating disorders, sexual functioning and social phobia.
Recommendation for Researchers	To help to fill in the research gaps, it is recommended to examine on how cosmetic surgery makes patients feel, how cosmetic surgery affects those around the recipients and what the effect of cosmetic surgery would be on children and teenagers.
Impact on Society	The increasing number of cosmetic surgery is having a dramatic impact on the Korean society. In Korea, the number of cosmetic procedures has nearly doubled in the past few years. Distorted perception of self-image, over dependence on the social media is enormous and cannot be overstated had also caused the dramatic rise of cosmetic surgery. The impact of social media has resulted in the rising demand for injectable facial fillers, liposuction, breast implants, buttock augmentation and Botox among younger generation.
Future Research	It is suggested to conduct further research involving Korean females who have undergone cosmetic surgery. The extended research should attempt to determine the level of satisfaction towards non-core and post cosmetic surgery services. That is, aftersales services, the skills and knowledge of the doctor, the clinic environment and other attributes that further define the total or augmented product.
Keywords	Beauty Industry, Women Behavior, Cosmetic Surgery, Intention, South Korea

## INTRODUCTION AND BACKGROUND

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Cosmetic surgery was initially developed as a way to improve the quality of life by repairing the body damaged by disease, injury and congenital deformity (Mohammad Panah, 2011). Choi (2015) stated that cosmetic surgery uniquely formulates youth and beauty by rebuilding qualities on the body as an effective way to improve the artistic value of those attributes. According to Alison (2016), the American Board of Cosmetic Surgery stated that the major goal of cosmetic surgery is to improve appearance by enhancing aesthetic appeal, symmetry, and of parts of body such as the head, face and neck. Cosmetic surgery is an elective procedure which used for areas of the body that perform normally but lack aesthetic appearance. Cosmetic surgery was founded in ancient as a reconstructive surgery and it was used for cure damaged part on the body due to war mutilation since ancient Greece and Rome (Pećanac, 2015). After First World War, plastic surgery began to emerge as a lot of creative and innovative forms (Pećanac, 2015). Thus, fundamentally cosmetic surgery has aim to improve

function of body or to cure a deformed body (Gilmartin, 2011). However, in present time, cosmetic surgery has additional uses such as improvements in one's appearance by making improvements in the physical attributes of beauty (Tiggemann, 2011). Due to development of the new technology and growing social and economic impact of beauty, cosmetic surgery grew rapidly, expanded throughout the world and became more accessible and available as a commodity (Jones, 2012). The demand continues to increase but on the supply side, this has created such an intense competition in the supply market for cosmetic surgery that it has lowered prices (Taber, 2012). Thus, according to general consumer demand theory, cosmetic surgery has become a normal good/service for enhancing women happiness and self-esteem (De La Poza, Alkasadi and Jódar, 2013). Over time, people's interest in cosmetic surgery has increased worldwide. According to the American Society for Aesthetic Plastic Surgery (ASAPS), in 2016 almost 13.7 million American people have had cosmetic surgery performed. That represents an increase of 1 million people over the year 2015. In addition, they spent more than 15 billion dollars on cosmetic surgery. Also the American Society reports that worldwide cosmetic procedures are increasing continuously. According to International Society of Aesthetic Plastic Surgeons (2016), worldwide surgical and non-surgical cosmetic procedures in 2015 were 21,696,671, an increase of 1,459,770 over 2014. Especially women have higher intention to do cosmetic surgery than men. In fact, female cosmetic procedures (85.6%) are more than male cosmetic procedures (14.4%), a difference of 71.2% at 2014 (ISAPS, 2016). Nowadays, physical attractiveness has become one of the most important elements of social status and differentiation between people; therefore, a lot of people feel a pressure to acquire a more captivating appearance (Lee and Lee, 2016). As a result, many younger persons are considering engaging with cosmetic surgery to satisfy these needs and as a method of appearance management or enhancement (Calogero et al., 2010).

In Korea, cosmetic surgery has become general way to manage one's beauty and appearance in much the same way one manages one's wardrobe by buying new fashion apparel (Tessa, 2015). South Korea was ranked third in the world of cosmetic surgery in 2015. ISAPS reported that 1,156 thousand of Korean people had cosmetic surgery in 2015 an increase of 506 thousand over 2011 (ISAPS, 2016). Clearly, the Korean cosmetic surgery market is a promising market with 24% market share of the total world market (The Seoul Touch Up, 2014). In other words, it is essential that the marketers focus on Korea as a promising market and conduct research to differentiate those segments of Korean people that have the intention to undertake plastic surgery. In Korea, cosmetic surgery is frequently mentioned in normal conversation as a general topic and it is naturally settled as a culture (Lee, 2015). The most common cosmetic surgery in Korea is performed on the eyes and nose. Among Korean women, double-eyelid surgery is the most popular and general one, but among Korean male, the nose is the most common part for cosmetic surgery (Karupiah, 2013). According to ISAPS (2016), South Korea most popular surgical cosmetic surgery in 2015 was eyelid surgery, undertaken by 101 thousand people; the second was rhinoplasty performed on 72 thousand people; and the third, breast augmentation performed on 50 thousand people. The Korean people have created several new neologisms such as "Seong-hyeong Munhwa (Cosmetic Surgery Culture)", and "Seong-hyeong Mi-yin (Cosmetic Surgery Beauty)". Moreover, the Korean people have created a great deal information about cosmetic surgery through the media. The typical movie is "200 Pounds Beauty" that delivers a positive message about how to overcome lower self-confidence by undertaking cosmetic surgery (Imdb.com, 2006); and another typical TV program is "Let Me In" that shows the positive effects of cosmetic surgery by making over people who suffer from having an unattractive or inconvenient face (Koreaboo.com, 2016).

It was broadcasted for Seasons 1 to 4 because of its positive viewer ratings. Furthermore, as the cosmetic surgery capital of the world, South Korea's medical tourism industry recorded revenue of \$453 million in 2012. However, like other medical operations, cosmetic surgery is never free from a number of various types of risks. Cosmetic surgery can be accompanied by various risks such as infections, coma, skin burns, nerve damages, excessive bleeding, and death (Wang, 2015). The most shocking case in Korea is cosmetic surgery addiction of Hang Mioku who is 57 years old Korean

female (The telegraph, 2008). When she was 28, she had undergone the first cosmetic surgery and she continued to do the operation ever since first cosmetic surgery; even she fell into obsession and started to inject cooking oil into her face; as a result, her face grotesquely drooped and became increasingly bigger like electric fan (Evans, 2013). Another case happen in Korea is that a student undergone double eyelid and nose surgery in December, 2013 but she eventually fell in coma due to medical accident (Wang, 2015). Moreover, a woman who was 23 years old took the double jaw surgery in August, 2012 but the surgery was not successful which left her unable to chew food and cry because of nerve damage in a tear duct (Waterlow, 2013). Given the significance of the advantages and the disadvantages of cosmetic surgery, there is indeed a need to investigate the Seoul Korea female intention to engage with cosmetic surgery in the context of emerging markets. Thus, the purpose of this research is to determine the factors that influence Seoul Korean female intention to engage in cosmetic surgery. What are the underlying attributes of the factors determining the Seoul Korean female propensity to undergo this service?

## LITERATURE REVIEW AND METHODOLOGY

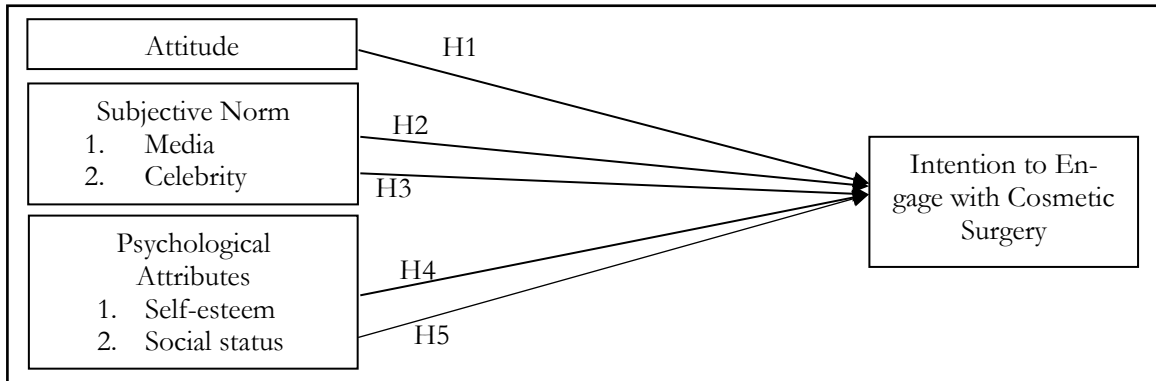
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### *CONCEPTUAL FRAMEWORK*

The Seoul Korea female behavior with respect to use of cosmetic surgery is approximately determined by factors underlying the consumer's behavioral intent. Thus, the Theory of Reasoned Action (TRA) is used in this study because it explains consumer intentions and has a strong power of prediction for a wide range of human behavioral attributes. The modified TRA model (Figure 1) postulates five conceptually independent determinants of Seoul Korea female intention to engage with cosmetic surgery: attitude, subjective norm (media), subjective norm (celebrity), psychological attribute (self-esteem) and psychological attributes (social status). In accordance with research done by Wangwi-boolkij (2012), psychological attributes such a self-esteem and social status were added in this research as they are important factors which influence repurchase intention of Thai female customers for Korean cosmetics in Bangkok. Self-esteem reflects a person's overall subjective emotional evaluation, belief and confidence in their self-worth. That is, their ability and value. The psychological factor of self-esteem generates positive feeling about the self (Solvi et al., 2010). Thus, it can be a most influential factor motivating people to purchase products or services like cosmetic surgery. Moreover, a state of body dissatisfaction is significantly related with interest in plastic surgery, because people who have high standards of beauty and low body image evaluation are more are more likely to undertake cosmetic surgery. In fact, most women who have high intention to undergo cosmetic surgery have the high body image standards (Milothridis et al., 2016). Social status refers to the honor or prestige attached to one's position or status in society. It is believed that cosmetic surgery can help people satisfy the social status associated with high standards of beauty by changing their body image to the socially ideal body image (Suisa, 2008).

According to Suisa, females who are of marriageable age suffer from social pressures that require them to fit into the socially acceptable standards of beauty. As a way to overcome the social pressure, many females decide to undergo the plastic surgery for enhancing their beauty and social status (Gilmartin, 2011). Indeed, South Korean people engage with cosmetic surgery because of competitiveness for success and jobs (CBS News, 2015). According to Wang (2010), competition in the Korean job market is increasing so rapidly that usually Korean people are finding it difficult to get a job and keep a job. Thus, attractive appearance is an important factor for achieving the desired social status in South Korea. The subjective norm can be defined as pressures come from the influence of public media that promote and foster engagement with cosmetic surgery. Examples of this include [the role of celebrity and the credibility of the media. Media influences the consumer through the use of a variety of forms: music, TV shows, magazines, and advertisement (Hennink-Kaminski, Reid, and King, 2010). Cosmetic surgery was associated with mass media's effect on body image (Al-Saiari and Ba-

karman, 2015). To summarize, media, especially cosmetic advertising, motivates women to form positive attitudes toward cosmetic surgery (Paraskeva, 2015; Sharp et al., 2014). The credibility of celebrity as an influencing factor is associated with the underlying attributes of expertise, trustworthiness, and attractiveness (Lord and Putrevu, 2009). According to Maltby et al. (2002), celebrity worship falls into three categories; social “Entertainment”. That is, interest in the attractiveness of celebrities, “Intense-personal”. That is, intensive and compulsive emotion about the celebrities, and “Borderline-pathological.” is out-of-control behaviors and fantasies about the celebrity. Researchers show that the “intense-personal” types are consumers who form positive attitudes and intentions to undergo cosmetic surgery (Maltby et al., 2002). Attitudinal influences are regard as the customers’ evaluation of the performance a behavior. In other words, attitude can show the degree of an individual’s likes or dislikes of particular object or set of attributes defining an object (Ajzen and Fishbein, 1980). It is supported by Wangwibookkij (2011) article where attitude can be defined as a readiness system of positive or negative assessment, emotions, and behavioral inclination about a particular object. For example, consumers will have positive attitudes if they feel an assessment of the benefits of an object benefit has a sufficiently high level of desired particularities (utility). Otherwise, consumers will have negative attitudes about the object because of its negative effects or unsatisfied level of desired utility (Schiffman and Kanuk, 2004). In other words, consumers who have a positive belief and favorable attitude will possibility behave positively towards cosmetic surgery. There are many studies that show that a positive attitude about self will shape behavioral intention, social status and success, motivate the consumer to engage with cosmetic surgery (Calogero et al., 2010; Wangwibookkij, 2011). According to Montano and Kasprzyk (2015), behavioral intention is one of the most significant decision factors of behavior. Also, the direction (positive or negative) of the individual’s attitude about performing a behavior and the subjective norm associated with that behavior are the direct decision factors of behavioral intention. Intention is an indicator of how high the propensity of the Seoul Korea females is engaging with cosmetic surgery.



**Figure 1. Conceptual Framework of TRA with Application towards Intention to Engage with Cosmetic Surgery in Seoul, Korea.**

(Source: Modified model from Ajzen and Fishbein, 1980)

### ***HYPOTHESIS TESTING***

The focus of this study is to find the relationship between the components in Theory of Reasoned Action (TRA) such as attitude, subjective norms (Media), subjective norm (celebrity), psychological attribute (self-esteem) and psychological attributes (social status) which influence Seoul Korea female intention to engage with cosmetic surgery in Seoul, Korea. Five hypotheses were formulated to identify the relationship between the components and intention to engage with cosmetic surgery in different aspects.

- 1) H<sub>1</sub>: Attitude will have a positive influence on Seoul Korea female intention to engage with cosmetic surgery.
- 2) H<sub>2</sub>: Subjective norm (Media) will have a positive influence on Seoul Korea female intention to engage with cosmetic surgery.
- 3) H<sub>3</sub>: Subjective norm (Celebrity) will have a positive influence on Seoul Korea female intention to engage with cosmetic surgery.
- 4) H<sub>4</sub>: Psychological Attributes (Self-Esteem) will have a negative influence on Seoul Korea female intention to engage with cosmetic surgery.
- 5) H<sub>5</sub>: Psychological Attributes (Social Status) will have a positive influence on Seoul Korea female intention to engage with cosmetic surgery.

### ***METHOD OF ANALYSIS***

Data were collected from consumers using self-administered sample survey questionnaires. Random sampling methods were used and 400 Seoul Korea female were interviewed using a self-administered questionnaire to collect data. The targeted respondents for this research consisted of the Seoul Korea female who are aged between 19 to 40 years old. Descriptive statistics, reliability test, exploratory factor analysis and multiple regressions analysis were used to analyze the information gathered from the questionnaire. Descriptive analysis was used to describe the Seoul Korea female socio-demographic profile in this study. Reliability analysis was carried out to test the internal consistency of data (Collis and Hussey, 2014). Exploratory Factor Analysis was used to reduce the items in the questionnaire. Multiple regression analysis is conduct to test the factors that influence Seoul Korea female intention to engage with cosmetic surgery. Therefore, to accomplish the main purpose of this study, a model was employed:

$$y = b_0 + b_1\chi_1 + b_2\chi_2 + b_3\chi_3 + b_4\chi_4 + b_5\chi_5 + e_1$$

Where,

y = Seoul Korea female intention

b<sub>0</sub> = regression constant

b<sub>k</sub> = coefficient on the k<sup>th</sup> predictor

χ<sub>1</sub> = Attitude

χ<sub>2</sub> = Subjective norm (Media)

χ<sub>3</sub> = Subjective norm (Celebrity)

χ<sub>4</sub> = Psychological attributes (Self-esteem)

χ<sub>5</sub> = Psychological attributes (Social status)

e<sub>1</sub> = error term

### **RESULTS**

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In this study, the Cronbach Alpha method was used to measure the reliability of the 24 questions that were used to measure (in Likert Scale) the attitude, subjective norm (media), subjective norm (celebrity), psychological attributes (self-esteem) and psychological attributes (social status). The Cronbach Alpha value was equivalent to 0.843, verifying that this model is suitable for this study.

### ***SOCIO-DEMOGRAPHIC INFORMATION***

Table 1 shows the socio-demographic profile of the Seoul Korea female. The result showed majority of the respondents were single (91.0 percent) and only 9.0 percent were married. In terms of monthly income, the result shows that 45 percent earned less than 1,000,000 won, 23 percent earn between 1,000,000 won to 2,000,000 won and 2,000,001 won to 3,000,000 won, 5.5 percent earn between 3,000,001 won to 4,000,000 won and only 3.5 percent had monthly income between more than

4,000,000 won. The education level of the respondents was categorized into two categories where 36 percent of the respondents graduate from bachelor and 64 percent had complete their master or doctor of philosophy degree. With regards to age, the result showed that most of the respondents were between 19 to 24 years (47.5 percent), while 39.5 percent was between 25 to 29 years old, 8.5 percent was between 30 to 34 years old and only 4.5 percent were 35 to 40 years old. As shows in Table 1, 43 percent of the respondents were students, 44 percent were employed, 1.5 percent were self-employed, 5.5 percent were unemployed, 3.5 percent were housewife and 2.5 percent listed as others.

**Table 1. Demographic Profile of Respondents (n=400)**

Characteristic	Percentage	Characteristic	Percentage
Age		Income per Month (Won)	
19 – 24	47.5	Less than 1,000,000	45.0
25 – 29	39.5	1,000,000 to 2,000,000	23.0
30 – 34	8.5	2,000,001 to 3,000,000	23.0
35 – 40	4.5	3,000,001 to 4,000,000	5.5
		More than 4,000,000	3.5
Occupation			
A student	43.0	Marital Status	
Employed	44.0	Single	91.0
Self-employed	1.5	Married	9.0
Unemployed	5.5		
A housewife	3.5	Education level	
Other	2.5	Tertiary Education	36.0
		Higher tertiary education	64.0

Source: Survey

\*1075 WON= \$1USD

### ***EXPLORATORY FACTOR ANALYSIS***

As mentioned earlier, factor analysis was used to uncover the latent factors underlying Seoul Korea female intention to engage with cosmetic surgery in Seoul, Korea. Respondents answered 24 statements which were all five point Likert scale about their attitudes, subjective norm, psychological Attributes and intention to engage with cosmetic surgery. The results for factor analysis show that out of 24 statements, there were 21 statements that related to Seoul Korea female intention. Kaiser-Meyer-Olkin (KMO) test reached the values of at least 0.803 (see Table 2) which indicates that the sampling adequacy and factor analysis can be carried out by using the 21 statements.

**Table 2. Kaiser-Meyer-Olkin (KMO) and Bartlett's test of Sphericity**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.803
Bartlett's Test of Sphericity	Approximate Chi-square	2013.710
	d.f	210
	Significance	0.000

After the varimax rotation of the Seoul Korea female responses to the 21 statements relating to their intention to engage with cosmetic surgery, the factor loading from the principal component factor analysis was obtained. From the results of the rotated factor matrix, only item with a factor loading of at least 0.6 and above are considered as a significance items. The factor loadings for the six factors fall in the range from 0.604 to 0.877 (see Table 4). The factors were named based on the sub-variables which define each factor. The Cronbach's Alpha was used to measure the reliability of 21 relevant variables. A measure of internal reliability consistency significant was determined by using the Cronbach's Alpha score. Six latent factors are identified and have sufficient internal reliability consistency as indicated by Cronbach's Alpha scores which shows in Table 3. Cronbach's alpha values

for the latent factors were all above 0.7. This showed that there was internal consistency among items.

**Table 3. Cronbach's alpha for each latent factor**

Dimensions	Cronbach's Alpha
Attitude	0.799
Subjective Norm (Media)	0.726
Subjective Norm (Celebrity)	0.792
Psychological Attributes (Self-esteem)	0.818
Psychological Attributes (Social status)	0.768
Intention	0.879

The six latent factors which account for about 70.962 percent of the total variance are summarized as follow.

**Seoul Korea female intention to engage with cosmetic surgery**

The factor, “Seoul Korea female intention to engage with cosmetic surgery”, is composed of four sub-variables with a total variance of 15.042 percentage. The sub-variables are, ‘I frequently imagine my appearance that is improved by having the cosmetic surgery’ (0.841), ‘In the future, I will take kind of cosmetic surgery’ (0.809), ‘I have interested in undergoing cosmetic surgery’ (0.808) and ‘Having the cosmetic surgery can be the most effective way that improves my appearance’ (0.647). Although cosmetic surgery is not the solution for all people who have body image issues, cosmetic surgery and makeover have become a general way in society to solve the body image issues (Greenberg et. al. 2011). The results of the tests clearly show that Seoul Korea females do have the intention to engage with cosmetic surgery.

**Psychological Attributes (Self-Esteem)**

This factor has a total variance of 12.888 percent and is comprised of four sub-variables: ‘I feel that I have a number of good qualities’ (0.839). This is followed by the sub-variables, ‘I respect my physical appearance’ (0.808), ‘I am satisfied with my physical appearance right now’ (0.781) and ‘I try to take positive behavior for improving my physical appearance’ (0.706). According to De La Poza et. al. (2013), people strive to enhance their wellbeing by behaviors or activities which can make them feel better when they under-perform and struggle with problems of low self-esteem. Frederick, Lever and Peplau (2007) said that someone who is interested in cosmetic surgery frequently has lower body image satisfaction. Such persons tend to use cosmetic surgery to remove unhappiness with their appearance, and to enhance self-esteem.

**Attitude**

This factor has a variance of 12.227 percent and is composed of four sub-variables. The first is ‘I agree that cosmetic surgery is the most effective way for people who have a complex on their appearance’ (0.814). It has the highest factor loading. The next is ‘I agree that undergoing the cosmetic surgery can make people to look better’ (0.765). The third is ‘I have favorable attitude to undergo cosmetic surgery’ (0.711), and the fourth is ‘I agree that if I do the cosmetic surgery, it will definitely enhance my appearance’ (0.643). The results show that most Seoul Korean females have a positive attitude towards cosmetic surgery. In this context, “a favorable attitude about benefits of cosmetic surgery “can be a powerful influence on people’s intention towards undertaking cosmetic surgery. If people believe that the benefits of cosmetic surgery will produce and have high level of particular desired social and psychological advantages they will engage in the surgery to acquire the favorable attitudes.



### Subjective norm (Celebrity Influence)

Perceived risk is the fourth factor which has a total variance of 11.041 percent with three sub-variables: 'I try to look like the celebrity who has ideal body image.' (0.821), 'I would like my appearance to look like the celebrities who have ideal body image' (0.768) and 'I compare my appearance to the appearance of celebrities' (0.754). The result indicates that females are greatly influenced by celebrity when they wish to change their attitude or are making decisions to purchase something because celebrities are associated with credible images of approval and social legitimization that are created from extensive recognition and popularity (Choi and Rifon, 2012).

### Psychological Attributes (Social Status)

Subjective norm has a variance of 10.139 percent and is composed of three sub-variables: 'A good appearance can help me belong to social groups' (0.877); 'A good appearance can give the benefit on my career' (0.819), and 'I try to be a good appearance for being recognized by people who I know' (0.690). In Korea, many people engage with cosmetic products and surgery because having an attractive appearance can arouse positive responses of success and social status (Elfving-Hwang, 2013).

### Subjective norm (Media Influence)

Subjective norm has a variance of 9.624 percent and consists of three sub-variables; 'Media is important source of information about beauty and "being attractive" (0.844) followed by 'Media influences me formulating the ideal body image' (0.810) and 'Media affects increasing my interest about the cosmetic surgery' (0.604). According to Paraskeve (2015), cultural standards of beauty are promoted and defined by media. Media influences females in various forms such as through music, TV shows, magazines and advertisement (Tiggemann and Mattiske, 2014).

**Table 4. Results of Exploratory Factor Analysis**

Items	Factor Loading					
	F1	F2	F3	F4	F5	F6
<b>Seoul Korea female intention to engage with cosmetic surgery</b>						
I frequently imagine my appearance that is improved by having the cosmetic surgery.	0.841					
In the future, I will take kind of cosmetic surgery.	0.809					
I have interested in undergoing cosmetic surgery.	0.808					
Having the cosmetic surgery can be the most effective way that improves my appearance.	0.647					
<b>Variance (percent of explained)</b>	<b>15.042</b>					
<b>Psychological Attributes (Self-Esteem)</b>						
I feel that I have a number of good qualities.		0.839				
I respect my physical appearance.		0.808				
I am satisfied with my physical appearance right now.		0.781				
I try to take positive behavior for improving my physical appearance.		0.706				
<b>Variance (percent of explained)</b>		<b>12.888</b>				
<b>Attitude</b>						

Propensity to Undergo Cosmetic Surgery in Seoul

I agree that cosmetic surgery is the most effective way for people who have complex on their appearance.			0.814		
I agree that undergoing the cosmetic surgery can make people to look better.			0.765		
I have favorable attitude to undergo cosmetic surgery.			0.711		
I agree that if I do the cosmetic surgery, it will definitely enhance my appearance.			0.643		
<b>Variance (percent of explained)</b>			<b>12.227</b>		
<b>Subjective norm (Celebrity Influence)</b>					
I try to look like the celebrity who has ideal body image.			0.821		
I would like my appearance to look like the celebrities who have ideal body image.			0.768		
I compare my appearance to the appearance of celebrities.			0.754		
<b>Variance (percent of explained)</b>			<b>11.041</b>		
<b>Psychological Attributes (Social Status)</b>					
A good appearance can help me belong to social groups.				0.877	
A good appearance can give the benefit on my career.				0.819	
I try to be a good appearance for being recognized by people who I know.				0.690	
<b>Variance (percent of explained)</b>				<b>10.139</b>	
<b>Subjective norm (Media Influence)</b>					
Media is important source of information about beauty and “being attractive”.					0.844
Media influences me formulating the ideal body image.					0.810
Media affects increasing my interest about the cosmetic surgery.					0.604
<b>Variance (percent of explained)</b>					<b>9.624</b>
<b>Total Percentage of Variance</b>					<b>70.962</b>

Source: Survey

### ***MULTIPLE REGRESSION ANALYSIS***

Multiple regression is used in this study to explain the dependent variable “*South Korean female intent to engage with cosmetic surgery*” (Y). Y is specified as a linear function of  $n=5$  independent/explanatory variables ( $X = x_{n=1...5}$ ):  $x_1$  = attitude,  $x_2$  = subjective norm (Media),  $x_3$  = subjective norm (Celebrity),  $x_4$  = psychological attributes (Self-esteem), and  $x_5$  = psychological attributes (Social status). The regression coefficients and tests statistics are shown in Table 5 below. The adjusted R square value is 0.405, which indicate that the five factors contributed 40.5 percent to the explanation of the total variation I estimation error in “*intention to engage with cosmetic surgery*”. The assumption of independence between independent/explanatory variables has been met, since the value of Durbin-Watson is

1.936, which is very close to two. Therefore, we can conclude that there is no first order linear auto-correlation in the data. Each factors tested in different dimensions and in the absence of multi-collinearity show the tolerance rate is more than 0.1 (Menard, 1995) and variance inflation factor (VIF) is less than 10 (Myers, 1990). All the p-values for the multiple regression coefficients are less than 0.05.

From Table 5, the result shows that psychological attributes (Self-esteem) is significant at 95% level. The other four variables such as attitude, subjective norm (media), subjective norm (Celebrity) and psychological attributes (social status) had proved significant at a 99% level. Attitude had a much larger explanatory value ( $\beta = 0.216$ ) than subjective norm /celebrity ( $\beta = 0.167$ ), psychological attributes/social status ( $\beta = 0.136$ ) and subjective norm /media ( $\beta = 0.135$ ). This indicates that attitude is the main predicting construct in the model. There we conclude that there is a significant positive relationship between attitude and Seoul Korean female intention to engage with cosmetic surgery. This result is supported in article by Calogero et al. (2010) using objectification theory. They found that British undergraduate women possess self-esteem attributes which influence their intention attitudes towards cosmetic surgery. The predictions based on subjective norm (celebrity) have a positive significance relationship ( $p = 0.000$ ) with Seoul Korean female intention to engage with cosmetic surgery. This means that variable celebrity greatly influences Seoul Korea female intention and behavior towards cosmetic surgery because celebrities can formulate a trustable image that is created from extensive recognition and popularity (Choi and Rifon, 2012).

Additionally, Elliott (2011) in the paper "*I want to look like that!*" shows that females are willing to undergo cosmetic surgery to acquire the perfect celebrity look because celebrities often lead the trend in beauty; and consumers tend to want to be like their favorite idol. They seek to acquire the attributes associated with the ideal or success. Subjective norm (media) show a positive significance relationship ( $p = 0.002$ ) with the Seoul Korea female intention to engage with cosmetic surgery. According to previous research, media is one of the strong factors that encourage people to engage with cosmetic surgery (Markey and Markey, 2010; Hennink-Kaminski et al., 2010). Advertising of cosmetic surgery attracts greater public attention to cosmetic surgery (Salehahmadi and Rafie, 2012); media marketing formulates and sets the standard of beauty specifying particular body images. It also provides the solution, cosmetic surgery, for reaching that standard of beauty (Teague, Mackenzie and Rosenthal, 2011).

Psychological attributes (Social status) shows significant positive relationship with South Korean female intention towards cosmetic surgery ( $p = 0.006$ ). The study is similar with Gilmartin (2011) where many women decide to engage with cosmetic surgery to increase their social status as one of the ways to overcome the social pressure. According to Suissa (2008), female who is marriageable age gets the social pressure that has to fit into the social standard of beauty and cosmetic surgery can help people reach the social standard of beauty by changing their appearance to ideal body image. On the other hand, psychological attributes (self-esteem) shows significant negative relationship ( $-0.070$ ) with South Korean female intention towards cosmetic surgery ( $p = 0.045$ ). The results suggest that females will tend to engage with cosmetic surgery if they have lower self-esteem. Farshidfar et al. (2013) shows that the sense of an unsatisfactory body image with low self-esteem can lead people to change their original body image until they reach the ideal socially acceptable body image. In addition, cosmetic surgery can be one of the effective tools that improve confidence and self-esteem by changing the body image. In fact, Brooks (2004) discovered that females undergo cosmetic surgery for improving self-esteem as a mechanism for rewarding and pampering themselves.

**Table 5. Multiple regression of South Korean Female Intention to Engage with Cosmetic Surgery**

Independent Variables	Unstandardized Coefficients (B)	Std. Error	P Value	Collinearity Statistics	
				Tolerance	VIF
Constant	1.284	0.219	0.000		
Subjective Norm (Media)	0.135	0.043	0.002***	0.895	1.118
Attitude	0.216	0.043	0.000***	0.863	1.159
Psychological attributes (Social status)	0.136	0.048	0.006***	0.909	1.101
Psychological attributes (Self-esteem)	-0.070	0.034	0.045**	0.956	1.046
Subjective Norm (Celebrity)	0.167	0.042	0.000***	0.914	1.095
R <sup>2</sup>	0.426	Adjusted R <sup>2</sup>	0.405	Durbin Watson	1.936

\*\*\*Statistically significant at the 0.01 level, \*\*at the 0.05 level and \*at the 0.10 level

## CONCLUSION

In Korea, cosmetic surgery has become general way to make manage one's beauty and appearance in much the same way one manages one's wardrobe by buying new fashion apparel (Tessa, 2015). South Korea is ranked third in the world cosmetic procedures in 2015 with 1,156 thousand of Korean people (ISAPS, 2016). ISAPS reported that 1,156 thousand of Korean people had engage with cosmetic surgery in 2015, an increase of 506 thousand over 2011 (ISAPS, 2016). Clearly, the Korean cosmetic surgery market is a promising market with 24% market share of the total world market (The Seoul Touch Up, 2014). In other words, it is essential that marketers focus on Korea as a promising market and conduct research to differentiate those segments of Korean people that have the intention to undertake plastic surgery. The Korean cosmetic surgery market recorded 24% of the total world's market for cosmetic surgery-(The Seoul Touch Up, 2014).

Thus, cosmetic surgery can be considered as the promising business area in South Korea. In particular, 90 percent of Seoul Korean females who are in the aged under 40 are willing to engage with cosmetic surgery (Lee, Lim and Yang, 2011). The market data strongly suggest that marketers who work in the beauty and health industries associated with cosmetic surgery should pay attention to Seoul Korean women who are in the age group under 40 years as the potential target market. More over our analysis supports this. First of all, attitude is one of the factors that influence Seoul Korean female intention to engage with cosmetic surgery. According to the research findings, Seoul Korean female attitudes towards cosmetic surgery are generally positive, or favorable intentioned. That is to say, they usually think that the most effective way to improve their appearance and social status is to undergo cosmetic surgery. This indicates that more active promotion activity can be undertaken in Seoul because Seoul Korean female are very responsive to the media and celebrity factors and thus being easily influenced. Marketers can emphasize the positive effects and reviews of cosmetic surgery in their promotions and advertisements.

However, marketers should consider not only provide information about the advantages of cosmetic surgery, but also sufficient information about the risk and precautions against the risks of cosmetic

surgery. This information is very important for building customer's trust and enhancing business performance. Secondly, while media has a significant positive relationship with Seoul Korean female intention to engage with cosmetic surgery, marketers need to monitor and analyze the trend to determine who is the celebrity considered as the ideal for body image and who is the most influential celebrity in the perception of Seoul Korean females. The study results (both qualitative and quantitative) support the proposition that the variables, media and celebrity, provide important information for the design of strategies for the development and effective conduct of advertisements and promotions of cosmetic surgery. Thus, if marketers take into account the influences of these two measures of subjective norms it will assist them in developing effective strategies for attracting customers to their market.

Lastly, other potential influencing factors were psychological attributes which are self-esteem and social status. Particularly, in the research finding, self-esteem has negative relationship with Seoul Korean female intention to engage with cosmetic surgery. This suggests that it is necessary for marketers to conduct research and analyses to gather customer information regarding their assessments of their satisfaction with their own appearance. That is, those parts of the body with which they are not satisfied; and who (which celebrity personality) they want to become or look like. Hence, a qualitative case analysis might be necessary along with the quantitative or positivist oriented analysis so that the marketer has a deeper understanding of information about the behavior of the customer; and hence be able to develop better offers or consultation about cosmetic surgery to them. Furthermore, marketers need to consider not only customers who have low self-esteem, but also customers who want to enhance social status, as potential customers who want to engage with cosmetic surgery. To improve the study and produce more accurate results, it is suggested to conduct further research involving Seoul Korean females who have undergone cosmetic surgery. The extended research should attempt to determine the level of satisfaction towards non-core and post cosmetic surgery services. That is, aftersales services, the skills and knowledge of the doctor, the clinic environment and other attributes that further define the total or augmented product. Furthermore, it is recommended that test be conducted to determine the differences between the clients' service expectations and their perception of the services actually provided by the clinic or hospital. This is essential in order to have a clearer picture of their satisfaction levels.

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## Propensity to Undergo Cosmetic Surgery in Seoul

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