

‘Correlational Analysis Of Cognitive Attitude Components Among Young Female Viewers Towards Skincare Television Advertisements’

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Research Article

‘Correlational Analysis Of Cognitive Attitude Components Among Young Female Viewers Towards Skincare Television Advertisements’

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Abstract:

This study explored the rational approach of the young female college-going viewers towards skincare TV ads. Nineteen variables were investigated embedded in four key cognitive components identified as informative, creativity, celebrity impression, and trustworthiness. Primary data was collected from a sample of 300 respondents through online mode of communications. Convenience sampling was adopted due to COVID-19 aftermaths. The significant impact was analyzed with t-test and ANOVA statistical tools. Pearson’s correlation matrix was applied to examine the correlation between the observable variables of the cognitive components. Principal component analysis extracted the latent variables, as retained from SPSS. It was revealed that majority of the young female viewers, who are present and prospective users of skincare products, agrees that television advertisements are very much impactful in conveying product information creatively along with celebrity impression to enhance trust for the advertised product. Creative elements registered originality and appropriateness of the advertised product(s) in the mind of the young female viewers. After statistical submission it was evident that skincare television advertisements were instrumental in developing adequate cognition in the mind of the young female viewers. Explicitly, *ANIMOTRONICS*, *LUMINOUS*, *UNSWERVING*, and *DOSSIER* (ALUD) were discernible in building a cognitive attitude towards skincare TV ads among young female viewers. The findings supported the hypothetical framework that overall explanation power in cognitive attitude was 65% variance denoted by the ALUD. The study recommends marketing managers not to be parsimonious in investing money on ALUD elements of TV ads for skincare products.

Keywords: television advertisements, skincare products, cognitive attitude, information, creativity, celebrity, trustworthiness, young female viewers, India

Introduction:

Television (hereon TV) as medium has high reach and is particularly evident in creating awareness, interest, and conviction about the advertised products among viewers. Primary purpose of advertising on television is to inform, persuade, or remind the specific target audience in a specific duration. Advertising agencies and professionals are particularly espoused by hierarchy effects model and means-end conceptualization of components for advertising strategy model. Some of the key evaluative adjectives compiled related to positive attitude towards TV advertising are: familiarity and novelty (Levitt 1970), relevant and unique (Wells et al. 1971), entertaining and brand reinforcing (Schlinger 1979), warm (Aaker and Bruzzone 1981), credible (Moldvan 1985), stimulating (Olson 1985), informative and believable (Aaker and Stayman 1990), ingenious and meaningful (Beil and Bridgwater 1990), importance (Bruzzone 1997), soft sell and trendy (Fam 2008), and re-affirming originality, believability and sensitivity (Cheong, Gregorio and Kim 2017). However, some dislikeability attributes of TV ads have also been identified such as annoying, and repetitive style, irrational exaggerated content, and meaningless characters. Conceptually there are *four persuasive cues in TV ads* – message theme, executional framework, use of spokesperson and hedonic function, further perceptually synthesized, and comprehended to form an attitude. An attitude is a summary evaluation of an object (here skincare TV ads) and an evaluative judgment at any point of continuum (Likert Scale used in this study). According to G.W. Allport, attitude is consistent inclination towards an object in a favorable or unfavorable manner. Attitude formation towards an ad and the brand are inseparable. Message strategies are parallels to the three *attitude constituents* i.e., affective, cognitive, and conative, no matter which path firsts. In general, it is observed that the tendency to buy products increases with the increase in degree of exposure to TV ads and/or print ads. Majority of Indian TV ads illustrates at least one of the skincare concerns such as: dark circles beneath eyes, skin-tan or uneven skin tone, pigmentation, blackheads, oily or dry skin, acne, pimples, dandruff, clogged pores, etc. to relate their product as unique solution therefor. Skincare TV ads considerably carries the quotient of rational thinking in evaluating the products such as facial cleanser, fairness cream, cold creams, scrubs, body lotion etc. This reinforces leaning to enquire the cognitive' component of attitude towards skincare TV ads.

Literature Review:

In terms of systematic-heuristic model of *information* processing, an advertiser viewer would follow his current knowledge and working memory which may be suffice to mine persuasive advertising cues, especially when the product is of routine consumption (such as skincare) with repetitive nature of advertising. One study indicates convey of 'explicit cues' i.e., information about physical composition of the product and the sensory pleasure derived from its consumption, have more impact on brand image than it be conveyed implicitly. Product and logo display duration should be emphasized more by advertisers. The cognitive response theory holds that persuasion is a function of people's reflections on and cognitive responses about the content of a message (Greenwald 1968; Wright 1980). Dual process theory of persuasion and its variance (Elaboration likelihood model, Petty and Cacioppo 1981, 1986; Eagly and Chaiken 1993; Pham 1996, 1998; Shavit et al.1994) suggests that persuasive processing of the advertised information largely depends on the recipient's expertise to identify and elaborate the cognitive resources conveyed, contextual cues displayed, his personal relevance or need state and the time constraint. The resource matching theory posits that persuasion is a function of the commensurability between the supply of and demand for cognitive resources with greater persuasion emerging if the levels of cognitive resources are comparable. Most messages contain materials that support the advocacy for the

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product in a compelling manner. Information reduces uncertainty. In broader context, *creativity* is cooking a recipe (syndrome) of novelty, challenge, change, amusing, intelligence cue, field specific, time-bound, attention seeking, imagination applied, originality retained, tech-oriented talent, fantasy, and art. What all depends is the competitive exposure of creativity to target consumers and their culture. Creativity is defined by Torrance (1965), 'as the process of becoming sensitive to problems, deficiencies, knowledge gap, missing elements, disharmonies and so on; identifying the difficulty; searching for solutions, making guesses, or formulating hypotheses about the deficiencies, testing and retesting these hypotheses, and finally communicating the results.' The concept of 'creativity continuity' (Guilford 1950) applies in television advertising production process which is first conceived in the mind of the creative director and travels through actors, story board writers, script writers, cameramen, make-up artists, visual effect supervisor, editor and so on. After the final broadcast it is also influenced by the cognition resources of the target audience. Nature of creativity has been investigated as a gray scale continuum growth termed as *mini-c* (through self-assessment), *little-c* (assessment of everyday innovation by teachers, parents, and peers), *pro-c* (assessment through formal training, challenges, peer-review, and honors) and *Big-C* (recognition as creative genius in the domain). The developmental process moves from individual level to professional level eminence while passing the apprenticeship and training, without losing the creative potential. Skipping any level be a case of exceptional greatness. A meta-analysis study was conducted based on retrieval approach revealed that both divergent stimuli and appropriateness must be inculcated as part of creativity in advertisements to be much impactfully registered, otherwise effect is undermined. Creativity facilitates processing unfamiliar brand to consumers considerably when mediated through television. *Celebrity endorsement or celebrity impression* is assumed as one of the creative communication cues for the present study. Probably the first definition, 'a celebrity endorser is an individual who is known by the public for his or her achievements in areas other than that of the product class endorsed'. The effectiveness of the advertising message is influenced by the attractiveness and credibility of the celebrities portrayed. An array of meaning is attached to the celebrity traits like youthful, intelligent, masculine, confidence, humor, maturity, expressive, irreverent, sensual, liberated, individualist, nationalist etc. Celebrities add precision to the advertised products. A meta-analysis study extracted major eight variables and propelled that trustworthiness with expertise and attractiveness consistently contributes to source credibility. As per literature extracts in a study, marketers use the trust developed by the celebrity about his expertise to enhance their advertised product image. Entertainment quality is an added advantage. In a study about colorful watches and juices, the celebrities and brand managers both need to consider the public persona and the product type match-up for precise willingness to pay by the consumers. One finding suggested that a more favorable attitude is generated toward the endorsed product when the viewer believes that endorser genuinely likes the advertised product. A qualitative interpretive study, based on McCracken (1989) 'meaning transfer model' found that a mix of meanings of celebrity traits, in terms of their personality, credibility, physical appearance, feelings, performance, values and cogent power, is transferred in the consumer mind associating with the endorsed brand. Yet, a meaning associated with the celebrity may change with time, but an endorsed brand will certainly be preferred over an unendorsed brand. It is apparent to mention the importance of *repetition* practice. Only moderate frequency of exposure of messages can deliver positive attitude of consumers towards the advertised product, but excessive may result negative impressions even for a familiar product or brand (Winter 1973; Ginter 1974; Cacioppo and Petty 1979; Calder and Sternthal 1980). *Information, creative tactics, and use of celebrity* all are but a few variables in building *trust* for advertised products in consumer mind. A study suggested that consumer trust towards advertisements predominantly involves

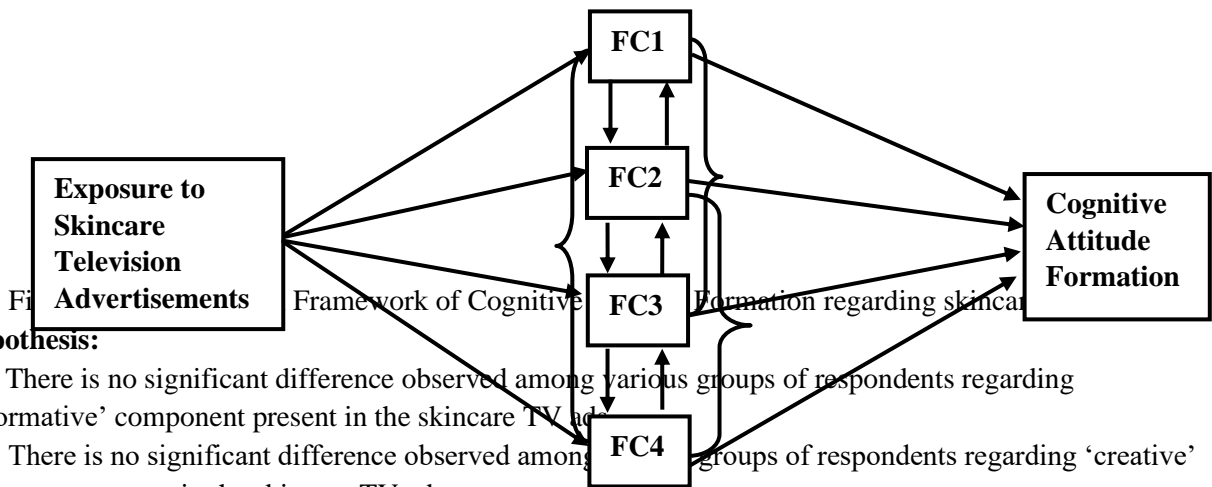
varying degrees of reliability, informational, emotional and willingness elements, duly supported by similar research of Churchill (1979) and Anderson (1988). Another study revealed that advertising enhances favorable thoughts which evoked belief strength about the brand's quality, competency, and fair treatment. An elaborate trust appeal is more persuasive than simple trust appeals. One research concluded that a consumer would feel guilty if he perceived that the advertisement is highly credible without any manipulative intentions; that there exists positive relationship between the ad credibility and overall attitude towards the ad.

Objectives of the Study:

- 1) To identify the variables that contribute forming cognitive attitude towards skincare TV ads.
- 2) To analyze the impact of observable variables to form cognitive attitudes among young female viewers towards skincare TV ads.
- 3) To understand if such observable variables are mutually related or not.
- 4) To further analyze the strength of relationship between the factor components.
- 5) To extract the most important component(s) variables forming cognitive attitude.

Hypothetical Framework:

Based on the above literature review, four 'factor components' are identified in the formation of cognitive attitude towards skincare TV ads i.e., *informative, creative, celebrity impression and trustworthiness*. It is proposed that a relationship exists between all the four factor components and do not exist in isolation, as hypothesized in the following figure (1); where, FC1 = *Informative*; FC2 = *Creative*; FC3 = *Celebrity Impression* and FC4 = *Trustworthiness*.



Hypothesis:

- H₁** : There is no significant difference observed among various groups of respondents regarding 'informative' component present in the skincare TV ads.
- H₂** : There is no significant difference observed among various groups of respondents regarding 'creative' component present in the skincare TV ads.
- H₃** : There is no significant difference observed among various groups of respondents regarding 'celebrity impression' component present in the skincare TV ads.
- H₄** : There is no significant difference observed among various groups of respondents regarding 'trustworthiness' component present in the skincare TV ads.
- H₅** : Correlation between the pairs of variables cannot be explained by other variables to factor cognitive attitude of the respondents.

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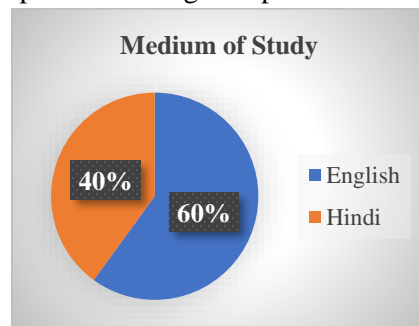
H₆ : The correlation matrix of observable variables is an identity matrix and factors cannot be performed to analyze cognitive attitude of the respondents.

Research Methodology:

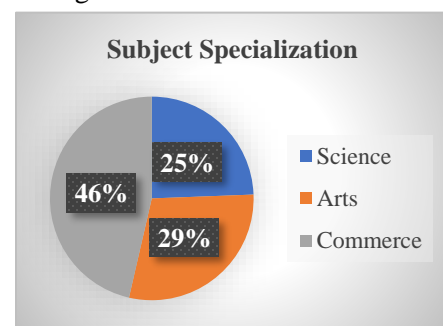
Due to pandemic COVID-19 the primary data was collected online, during the third quarter of the year 2020. ‘Convenience sampling’ adopted due to restricted permission in female colleges for database collection, in Rajasthan state of India. Out of 300 questionnaires administered, only 250 were taken for final analysis after rejections either due to incompleteness or irrelevant responses. Careful data entry was done without any missing data and if any outliers found on box plot was treated accordingly. All young female college-going viewers were in the age group between 18-21 years; therefore ‘age’ as mediating variable was ignored. The distinction of the group has been crafted based on the basis of ‘medium of study’ and ‘subject specialization’. Nineteen items were investigated on a five-point Likert Scale for whose descriptive statistics (*appendix-i*). Kolmogorov-Shapiro and Shapiro-Wilk test for normality was conducted and the data found to be significantly normal at $p < 0.05$, which allowed parametric tests further. All the data analysis was carried out in IBM SPSS Statistics (version 21).

Data Analysis:

The composition of target respondents is as shown in following charts:



[Group 1: Medium of Study]



[Group 2: Subject Specialization]

Testing H₁ :

T-test of FC1 [INFORMATIVE]

Table-1: Group Statistics (FC1)			
Variables (transformed) Q_1,Q_2,Q_3,Q_4	Mean	Std. Deviation	Std. Error Mean
English (N=150)	4.1450	.36323	.02966
Hindi (N=100)	4.2675	.39449	.03945

Table-2: Independent Samples Test

Variables (transformed) Q_1,Q_2,Q_3,Q_4 (FC1)	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig. (2- tailed)
Equal variances assumed	.000	.997	-2.523	248	.012
Equal variances not assumed			-2.482	200.069	.014

The independent sample t-test (Table-2) indicates a statistically significant effect, $t\text{-test} (248) = -2.253$, $p = 0.012$. The effect size is reportedly 'medium' based on standardized Z-scores of variables. Levene's test is non-significant. Hindi medium female viewers were associated with a statistically significant larger mean. Hence, there is a significant influence of *information* component of skincare TV ads on the two groups based on medium of study and the null hypothesis (H_1) is **rejected**.

One Way ANOVA-test of FC1 [INFORMATIVE]

Table-3: Group Statistics (FC1)					
Variables (transformed) Q_1,Q_2,Q_3,Q_4	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
				Lower Bound	Upper Bound
Science (N=61)	4.1598	.34167	.04375	4.0723	4.2473
Arts (N=73)	4.3390	.38498	.04506	4.2492	4.4289
Commerce (N=116)	4.1207	.37370	.03470	4.0520	4.1894
Total (N=250)	4.1940	.38005	.02404	4.1467	4.2413

Table-4: ANOVA					
Variables (transformed) Q_1,Q_2,Q_3,Q_4 (FC1)	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.230	2	1.115	8.165	.000
Within Groups	33.736	247	0.137		
Total (N=250)	35.966	249			

The One-Way Anova (Table-4) yielded a statistically significant effect, $F (2, 247) = 8.165$, $p = 0.000$; thus, the null hypothesis (H_1) of no differences between the mean **rejected**. Levene's F test, $F (2, 247) =$

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0.515, $p = 0.598$; found to be non-significant. Hence, there is a significant influence of *information* component of skincare TV ads on the three groups based on subject specialization as well.

Testing H₂ :

T-test of FC2 [CREATIVE]

Table-5: Group Statistics (FC2)			
Variables (transformed) Q_5,Q_6,Q_7,Q_8,Q_9,Q_10	Mean	Std. Deviation	Std. Error Mean
English (N=150)	3.2656	.61095	.04988
Hindi (N=100)	3.4700	.63537	.06354

Table-6: Independent Samples Test					
Variables (transformed) Q_5,Q_6,Q_7,Q_8, Q_9, Q_10 (FC2)	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig. (2- tailed)
Equal variances assumed	0.294	0.588	-2.551	248	.011
Equal variances not assumed			-2.531	206.527	.012

The independent sample t-test (Table-6) indicates a statistically significant effect, *t-test* (248) = -2.551, $p = 0.011$. The effect size is reportedly ‘medium’ based on standardized Z-scores of variables. Levene’s test is non-significant. Hindi medium female viewers were associated with a statistically significant larger mean. Hence there is a significant influence of *creative* component of skincare TV ads on the two groups based on medium of study as well and the null hypothesis (H₂) is **rejected**.

One Way ANOVA-test of FC2 [CREATIVE]

Table-7: Group Statistics (FC2)					
Variables (transformed) Q_5,Q_6,Q_7,Q_8,Q_9 ,Q_10	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
				Lower Bound	Upper Bound
Science (N=61)	3.1858	.59946	.07675	3.0323	3.3393
Arts (N=73)	3.5571	.60809	.07117	3.4152	3.6990
Commerce (N=116)	3.3003	.62447	.05798	3.1854	3.4151
Total (N=250)	3.3473	.62764	.03970	3.2692	3.4255

Variables (transformed) Q_5,Q_6,Q_7,Q_8,Q_9, Q_10 (FC2)	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.060	2	2.530	6.717	.001
Within Groups	93.030	247	.377		
Total (N=250)	98.090	249			

The One-Way Anova (Table-8) yielded a statistically significant effect, $F(2, 247) = 6.717, p = 0.001$; thus, the null hypothesis (H_2) of no differences between the mean **rejected**. Levene's F test, $F(2, 247) = .013, p = 0.987$; found to be non-significant. Hence there is a significant influence of *creative* component of skincare TV ads on the three groups based on subject specialization as well.

Testing H_3 :

T-test of FC3 [CELEBRITY IMPRESSION]

Variables (transformed) Q_11,Q_12,Q_13,Q_14,Q_15	Mean	Std. Deviation	Std. Error Mean
English (N=150)	3.0413	.70217	.05733
Hindi (N=100)	3.3180	.75537	.07554

Variables (transformed) Q_11,Q_12,Q_13, Q_14,Q_15 (FC3)	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed	1.209	.273	-2.961	248	.003
Equal variances not assumed			-2.917	201.489	.004

The independent sample t-test (Table-10) indicates a statistically significant effect, $t\text{-test}(248) = -2.961, p = .003$. The effect size is reportedly 'medium' based on standardized Z-scores of variables. Levene's test is non-significant. Hindi medium female viewers were associated with a statistically significant larger mean. Hence there is a significant influence of *celebrity impression* component of skincare TV ads on the two groups based on medium of study as well and the null hypothesis (H_3) is **rejected**.

One Way ANOVA-test of FC3 [CELEBRITY IMPRESSION]

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Table-11: Group Statistics (FC3)					
Variables (transformed) Q_11,Q_12,Q_13,Q_14, Q_15	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
				Lower Bound	Upper Bound
Science (N=61)	2.8656	.74451	.09532	2.6749	3.0563
Arts (N=73)	3.4356	.70973	.08307	3.2700	3.6012
Commerce (N=116)	3.1241	.68558	.06365	2.9981	3.2502
Total (N=250)	3.1520	.73508	.04649	3.0604	3.2436

Table-12: ANOVA					
Variables (transformed) Q_11,Q_12,Q_13,Q_14,Q_ 15 (FC3)	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10.966	2	5.483	10.960	.000
Within Groups	123.578	247	.500		
Total (N=250)	134.544	249			

The One-Way Anova (Table-12) yielded a statistically significant effect, $F(2, 247) = 10.960, p = 0.000$; thus, the null hypothesis (H_3) of no differences between the mean **rejected**. Levene’s F test, $F(2, 247) = .330, p = 0.719$; found to be non-significant. Hence there is a significant influence of *celebrity impression* component of skincare TV ads on the three groups based on subject specialization as well.

Testing H_4 :

T-test of FC4 [TRUSTWORTHINESS]

Table-13: Group Statistics (FC4)			
Variables (transformed) Q_16, Q_17,Q_18,Q_19	Mean	Std. Deviation	Std. Error Mean
English (N=150)	3.1150	.62768	.05125
Hindi (N=100)	3.6000	.61751	.06175

Table-14: Independent Samples Test					
Variables (transformed) Q_16,Q_17,Q_18,Q_19 (FC4)	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig. (2- tailed)

Equal variances assumed	.160	.690	-6.024	248	.000
Equal variances not assumed			-6.044	214.681	.000

The independent sample t-test (Table-14) indicates a statistically significant effect, *t*-test (248) = -6.024, *p* = .000. The effect size is reportedly ‘large’ based on standardized Z-scores of variables. Levene’s test is non-significant. Hindi medium female viewers were associated with a statistically significant larger mean. Hence there is a significant influence of *trustworthiness* component of skincare TV ads on the two groups based on medium of study as well and the null hypothesis (*H*₄) is **rejected**.

One Way ANOVA-test of FC4 [TRUSTWORTHINESS]

Variables (transformed) Q_16,Q_17,Q_18,Q_19	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
				Lower Bound	Upper Bound
Science (N=61)	3.2008	.55117	.07057	3.0597	3.3420
Arts (N=73)	3.6507	.67923	.07950	3.4922	3.8092
Commerce (N=116)	3.1509	.63919	.05935	3.0333	3.2684
Total (N=250)	3.3090	.66637	.04214	3.2260	3.3920

Variables (transformed) Q_16,Q_17,Q_18,Q_19 (FC4)	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	12.137	2	6.069	15.229	.000
Within Groups	98.430	247	.399		
Total (N=250)	110.567	249			

The One-Way Anova (Table-16) yielded a statistically significant effect, *F* (2, 247) = 15.229, *p* = 0.000; thus, the null hypothesis (*H*₄) of no differences between the mean **rejected**. Levene’s F test, *F* (2, 247) = 1.304 *p* = 0.273; found to be non-significant. Hence there is a significant influence of *trustworthiness* component of skincare TV ads on the three groups based on subject specialization as well.

Further, there exists a mutual correlation impact among all four components (transformed variables) is shown in Table-17:

Observable Variables (transformed):	Q_1,Q_2, Q_3,Q_4 (FC1)	Q_5,Q_6,Q_7, Q_8,Q_9,Q_1 0 (FC2)	Q_11,Q_12 ,Q_13,Q_1 4,Q_15 (FC3)	Q_16,Q_17, Q_18,Q_19 (FC4)
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Q_1,Q_2,Q_3, Q_4 (FC1)	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	250			
Q_5,Q_6,Q_7,Q_8, Q_9,Q_10 (FC2)	Pearson Correlation	.103	1		
	Sig. (2-tailed)	.105			
	N	250	250		
Q_11,Q_12,Q_13,Q_14, Q_15 (FC3)	Pearson Correlation	.153*	.508**	1	
	Sig. (2-tailed)	.016	.000		
	N	250	250	250	
Q_16,Q_17,Q_18, Q_19 (FC4)	Pearson Correlation	.293**	.495**	.556**	1**
	Sig. (2-tailed)	.000	.000	.000	
	N	250	250	250	250
Descriptive Statistics	Mean	4.194	3.347	3.152	3.309
	Standard Deviation	0.3800	0.6276	0.7350	0.6637

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Analysis of Table-17 suggests that **(1)** there exists a low strength relationship between informative and celebrity impression components with $r=0.153$, significantly at $p<0.05$; also, a moderate strength relationship between informative and trustworthiness components with $r=0.293$ significantly at $p<0.01$. A positive correlation suggests that more and more product information is required to be given in skincare TV ads to build higher trust without ignoring the use of celebrity. **(2)** There exists a moderate strength relationship between creativity and celebrity impression components with $r=0.508$ significantly at $p<0.01$; also, there exists a moderate strength relationship between creativity and trustworthiness components with $r=0.495$ significantly at $p<0.01$. This infers that creativity participates in enhancing trust alongwith the use of celebrity. **(3)** There exists a moderate strength relationship between celebrity impression and trustworthiness components with $r=0.556$ significantly at $p<0.01$. This infers that there is a transfer of trust about the celebrity into the skincare product advertised.

Further, as can be seen in Table-18, the Cronbach’s alpha value is **0.790** which is satisfactorily above the acceptable, as retained from SPSS.

Table-18: Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.790	0.775	19

It indicates that 79% of the variance in the scores are reliable variance. Deletion of any item was not required. The Cronbach’s alpha sets that the data collection has been reliable enough to proceed for

multivariate analysis. As can be seen in Table-19, the KMO value is **0.787** which is satisfactorily above the desirable, as retained from SPSS.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.787
Bartlett's Test of Sphericity (BTS)	Approx. Chi-Square	908.140
	df	171
	Sig.	.000

This infers that the correlation between the pairs of observable variables can be explained by other variables to factor cognitive attitude of young female viewers towards the skincare TV ads. This satisfies the prerequisite of PCA. Thus, the H_5 (null) is **rejected**. Also, in Table-19, the BTS is approximately 908.140 with $p < 0.000$, as retained from SPSS. This infers that the correlation matrix of observable variables is not an identity matrix and factors can be performed to analyze the latent variables of the cognitive attitude of young female viewers. This also satisfies the prerequisite of principal component analysis (PCA). Thus, the H_6 (null) is **rejected**.

A PCA performed. *Initially*, six latent variables were extracted at Eigen value more than one and suppressing small correlation coefficients below 0.30. The 'determinant' of the correlation matrix was positive at 0.023. The 'extraction sum of squared loadings' was compared with 'rotated sums of squared loadings' and the total cumulative variance of all six extracted variables was found to be 56.438%. But in rotated component matrix, there were eight variables which were 'cross-loading' with minimum impact over these six components. Therefore, these eight variables were removed. *And a second time rotation* was applied with remaining variables with same settings in SPSS. This time *five components* have been extracted as shown in Table-20 and Figure (2) with total cumulative variance explaining **65.114%**. The 'determinant' of the correlation matrix was improved at positive 0.256, the BTS remained significant and the KMO value reduced to 0.588 which is still above recommended 0.50, so satisfactory.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.259	20.539	20.539	2.259	20.539	20.539	1.740	15.820	15.820
2	1.511	13.738	34.277	1.511	13.738	34.277	1.592	14.476	30.296
3	1.256	11.421	45.698	1.256	11.421	45.698	1.448	13.162	43.458
4	1.107	10.066	55.764	1.107	10.066	55.764	1.293	11.751	55.209
5	1.029	9.351	65.114	1.029	9.351	65.114	1.090	9.906	65.114
6	.923	8.395	73.509						
7	.777	7.065	80.575						
8	.680	6.183	86.758						
9	.602	5.471	92.228						
10	.493	4.482	96.710						
11	.362	3.290	100.000						

Extraction Method: Principal Component Analysis.

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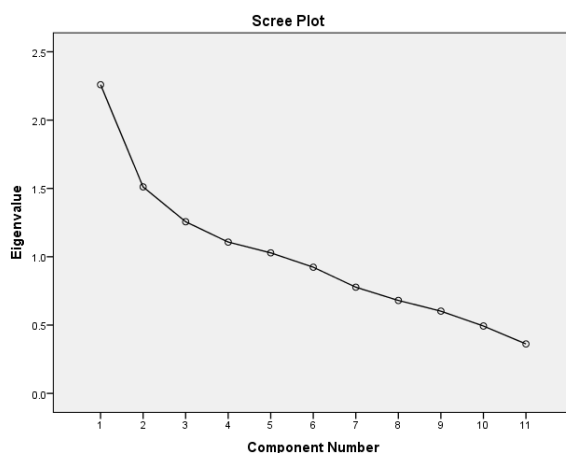


Figure (2): Scree plot of total variance for extracted variables

A ‘varimax’ rotation applied. Hence, a number of components are reduced with individual loadings without overlap, after removing unwanted items, as shown in Table-21.

Table 21: Results of Rotated Component Matrix^a (N=250)					
Extracted items	Component				
	ANIMOT RONICS	LUMINO US	UNSW E RVING	DOSSIE R	5
Computer graphics in TV Ads help understand product claim that it whitens your skin in 2 weeks.	.801	.000	.168	-.109	.152
Computer graphics in TV Ads help understand product claim that it lightens your skin tone.	.776	.095	-.027	.000	.095
Computer graphics in TV Ads help understand product claim that it keeps your skin soft and smooth for longer hours.	.595	.168	.149	.261	-.279
In your view, the idea of presenting the live actors with/and animated characters in skincare TV Ads makes it appealing for the audience.	-.023	.899	-.013	.032	.084
Showing skincare problems with computer graphic visualization in TV Ads is convincing.	.256	.809	.063	-.186	.016
Do you agree that skin problems shown in TV Ads are also observed amongst the girls of your age?	.061	.013	.809	-.134	.081
Based on what you see and hear in skincare TV Ads, your preference to buy that product would be?	.125	.025	.796	.162	-.072
TV Ads launch new skincare products successfully in the market.	-.147	.016	.024	.787	.016

TV Ads are useful to know which brands of skincare products are available in the market.	.169	-.139	-.017	.668	.047
TV Ads are good source of information about companies selling skincare products to consumers.	.079	-.054	-.150	.202	.763
skincare companies must use celebrities in their TV Ads.	.031	.262	.283	-.164	.614
% of Variance	15.820	14.476	13.162	11.751	9.906
Eigenvalues	1.740	1.592	1.448	1.293	1.090
Cronbach's alpha	0.608	0.709	0.539	0.344	0.107

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.^a

a. Rotation converged in 5 iterations.

Variables with large loadings on the same factor describes the factor. These new factors need be labelled. *As per Table-21: (1)* the new latent factor component #1 (15.820% total variance) is influenced by *computer graphics visualization variables* in explaining the product claims to the audience. Clearly the use of visual effects in communicating the product problem and its solution is absolutely a successful tactic of advertisers. Therefore, this component is labelled as **ANIMOTRONICS**. *(2)* Another new latent factor component #2 (14.476% total variance) is influenced by presence of live actors and celebrities. These actors are able to transfer the TV ads meaning in the mind of the young female audience. Therefore, this component is labelled as **LUMINOUS**. *(3)* The factor component #3 (13.162% total variance) is *trust-enhancing* in explaining the product claims to the audience. TV ads can evoke critical thinking in the mind of the young female viewers to build trust with rationality to buy the best suited skincare product. They are mentally prepared to buy the advertised products on television over an unadvertised one. Therefore, this component is labelled as **UNSWERVING**. *(4)* The factor component #4 (11.751% total variance) confirms substantial informative elements sufficiently understood by the young female viewers provided by the skincare TV ads. Therefore, this component is labelled as **DOSSIER**. *(5)* The factor component #5 (9.906% total variance) is re-affirming the skincare TV ads to be enlightening, and impact of celebrity presence, therefore this is kept *undefined*. Resultantly, an acronym ALUD.

Findings and Conclusion:

In a nutshell, the cognitive attitude towards skincare TV ads is the function of all the four components and any one of them cannot be separated. A strong improvement is required between the information presented creatively for better influence, despite of the fact that information of new product launches are satisfactorily provided. Majority also agree that skincare TV ads portray the general skin problems faced by the similar age group i.e., from 18 to 21 years, with full conviction. The young female viewers are highly convinced in the product features and its use due to trustworthy exposure of the ANIMOTRONICS. The inner aspirations to become identical, and remain radiant such as of the attractive figures and celebrities, are alive. The script or the product performance claims spoken by the celebrities are knowingly taken as true. The young female viewers fell excited to relate their 'self' and get identified with the LUMINOUS component. The respondents are pleased with the UNSWERVING impact of the color and logo of the brands when broadcast repetitively, which help strengthens the belief in product features and make rational decision as well. DOSSIER component needs to be worked upon much and

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presented creatively, however, mention of specific skincare benefits with relevant messages in TV ads conforms the concerns of the young female viewers. Originality and appropriateness of the advertised product(s) to be registered impactfully. Also, aids assess the product with higher involvement, even if the need is not immediate. The young female viewers believes that the advertised skincare products on television are of high quality, suggests best suited products for their skin and thus would be at preference to buy as and when needed. Explicitly, *ANIMOTRONICS*, *LUMINOUS*, *UNSWERVING*, and *DOSSIER* (ALUD) are discernible in building a cognitive attitude towards skincare TV ads among young female viewers. The findings support the hypothetical framework that overall explanation power in cognitive attitude is 65% variance denoted by the ALUD.

Managerial Implications:

ANIMOTRONICS, LUMINOUS, UNSWERVING, and DOSSIER (ALUD) identified statistically in this research study recommends the marketing managers not to be parsimonious in investing money on these crucial elements of TV ads for skincare products. And more emphasis is required to convey information about the skincare products as well as the company to the target audience, without sacrificing the other elements.

Limitations:

Collecting communications database from female respondents was a difficult task. The questionnaire was bilingual. Absence of direct communication with respondents was a major bottleneck but was handled with personal references, especially in the time of COVID-19. Compiling and follow-up of the questionnaire sent to the target respondents online was yet another challenge. Financial implications were met in the whole process.

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Appendix:

- i. Descriptive statistics of each variable incorporating all four factor components are:

Variables (untransformed)	N	Mean	Std. Dev.	Min.	Max.
Q1.	250	4.260	0.6212	2	5
Q2.	250	4.304	0.6910	1	5
Q3.	250	4.268	0.7685	1	5
Q4.	250	3.936	0.8525	1	5
Q5.	250	3.992	0.9139	1	5
Q6.	250	3.540	1.0260	1	5
Q7.	250	3.556	0.9479	1	5
Q8.	250	3.072	1.1062	1	5
Q9.	250	2.448	1.1439	1	5

Q10.	250	3.476	1.1413	1	5
Q11.	250	3.576	1.0586	1	5
Q12.	250	3.396	1.1647	1	5
Q13.	250	2.960	1.3437	1	5
Q14.	250	2.672	1.0662	1	5
Q15.	250	3.156	1.1938	1	5
Q16.	250	3.244	0.9359	1	5
Q17.	250	3.376	0.9831	1	5
Q18.	250	2.964	1.0617	1	5
Q19.	250	3.652	0.9458	1	5

ii.

COMPONENT MATRIX (unrotated)

Component Matrix ^a						
All 19 items:	Component (inclusive of all 19 items)					
	1	2	3	4	5	6
Q14.	.678					
Q12.	.628					
Q17.	.598					
Q16.	.589					
Q9.	.587			-.340		
Q18.	.574					
Q8.	.528		.374	-.372		
Q15.	.511					.391
Q10.	.464	.309			-.380	
Q7.	.432		.343			
Q13.	.431			.390	-.388	
Q5.	.377	-.568		.429		
Q2.		.551	.301			
Q6.	.526	-.541				
Q4.	.392		-.611			
Q19.	.435		-.549			
Q3.		.411		.498	.305	-.414
Q11.	.384	-.378			.614	
Q1.				.409		.634

Extraction Method: Principal Component Analysis.^a

a. 6 components extracted.