Analysis of the Factors Affecting Customers' Purchase Intention: The Mediating Role of Customer Knowledge and Perceived Value

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ABSTRACT
Celebrity endorsers and product packaging are two most important factors in creating the brand identity and help in evaluating a products perceived value as well as increasing the knowledge about the product. This study was aimed at evaluating the effect of celebrity endorser and product packaging on purchase intentions taking customer knowledge and perceived value as mediating variables. The sample size was 150 respondents and the sample was identified through non probability quota sampling technique. Questionnaires were standardized using reliability and factor analysis. Results indicated celebrity endorser significantly effects purchase intention of shampoos directly as well as celebrity endorser, product packaging and customer knowledge effect perceived value as mediating variable in turn effecting purchase intentions. Customer knowledge is a lesser important variable in case of shampoos purchase intention.

Keywords: Celebrity Endorser, Product Packaging, Customer Knowledge, Perceived Value And Purchase Intention

INTRODUCTION
In this era of competition every organization wants to increase or at least maintain their products sale in the market. Every organization wants to know how the purchase intention of customers can be evaluated. This research was aimed at identifying the direct at indirect effect of celebrity endorsement, product packaging and customer knowledge on purchase intentions in case of different shampoo brands. Perceived value and Customer knowledge about the product were taken as the mediating variables.

Organizations are spending lot of money on celebrity endorsers and designing the package of their product. This study will reveal whether it is worth spending this much amount on these two decisions. "Perceive value is the worth that a product or service has in the mind of the consumers. The consumer's perceived value of a good or service affects the price that he or she is willing to pay for it. For the most part, consumers are unaware of the true cost of production for the products they buy. Instead, they simply have an internal feeling for how much certain products are worth to them. Thus, in order to obtain a higher price for their products, producers pursue marketing strategies to create a higher perceived value for their products" such as the celebrity endorser decision as well as the product packaging.

Customer knowledge also effects the purchase decision the more the customers will know about the product the more they will be confident about their purchase decision but as customer don't know the actual cost company has incurred in manufacturing the product customers lack real knowledge about the products and therefore make perceptions about the product.

Purchase intention can be defined as individual's intention to buy a specific brand individuals who want to buy a specific brand which they has chosen for themselves after certain evaluation; there are variables by which we can measure purchase intention for instance consider the brand for purchasing and expecting to purchase the brand in the future (Laroche et al 1996; Laroche and Sadokierski, 1994; MacKenzie et. al. 1986). Doing purchase intention for a specific brand requires assessment of all brands available in market (Teng, Laroche and Huihuang, 2007). It is shown that approaches toward a specific brand have great effect on brand purchase intention (Brown and Stayman, 1992; Homer, 1990; MacKenzie, 1986), and brand attitude has positive relation with purchase intention. It is also found that a consumer's intention is settled by attitude toward the same and other brands which are present in his consideration set (Laroche and Sadokierski, 1994; Laroche et. al. 1996).

Purchase intention is composed of consumer's feelings, thoughts, experience and external factors that he considered before making any purchase. Purchase intention of the consumers depicts and expresses their behavior and the way they making decisions about their buying process (Fishbein & Ajzen, 1975).

Purchase intentions describe and determine the consumer response to purchase the offering. The higher the intention leads to elevated purchase of that offering. Consumers purchase intention can be determine through their responses, feedback and their involvement. Highly involved consumers shows high rate of purchase (Dodds, et al., 1991; Schiffman & Kanuk, 2000).

LITERATURE REVIEW

Researchers have proved many a times that celebrity endorsement, customer knowledge and product packaging/ design increases purchase intention of customers towards an organizations product. Recently some researchers have proved that celebrity endorsement, customer knowledge and product packaging helps customers in evaluation of the product which is also called perceived value. After evaluation of the product or identifying the perceived value of the product customers generate purchase intentions towards the product.

Product knowledge or customer knowledge helps in better evaluations of the product by the customers and purchase decision is more objective by them rather than subjective. Kempf and Smith (1998) conducted a research on consumer's knowledge about the product on product evaluations. The results indicated that consumers having more knowledge about a product are able to solve their problem with lesser efforts compared to less knowledgeable consumers. Also consumers with higher knowledge are not biased in making their decisions related to product purchase. Product knowledge plays a significant role in purchase intentions when the product is new or is manufactured in other countries and is distributed in rest of the countries (David Bamber, Suniti Phadke and Amalendu Jyothishi 2012)

Do-Hyung Park and Sara Kim (2008) study indicated that consumers who are experts were affected by the cognitive fit of the message and their probability of purchasing the product increases whereas novice customers look at the number of reviews and make purchase

decisions in online purchases. Xuemei Bian and Luiz Moutinho (2008) study indicated that customer knowledge does not affect purchase intentions directly rather it has an effect on perception towards product that is perceived value and the final decision of purchase is based upon these perceptions.

Lotta Immonen (2010) studied the impact of package cues on the perception of premium quality of premium private label products. The results indicated that visuals on the package and the information provided on the package influence the quality judgment of coffee products. The indicators of higher quality of a product are the small package size, package attractiveness, soft packaging as well as the uniqueness of the package.

Package design not only increases the visibility of the product it also helps in easy recognition of the product. Also improvements in product packaging revitalize brands leading to increase in sales (Leong Siew Pong 1998). Package designs effects consumer belief about the products and consumption beliefs leading to higher purchase intention (Sharon Horsky and Heather Honea 2009). Ksenia Polyakova (2013) studied the effect of package design on purchase intention. The results of the study indicated that graphics on the package, color and the information of the product are the key factors in purchase decision (Douglas Bryson 2012, V.K. Bishnoi & Supriya Dhillon 2013). Munyaradzi Mutsikiwa and John Marumbwa (2013) examined the effect of package colors, instructions, material and typography on purchase intentions of dairy products. The results indicated that all elements of package design don't affect the purchase intentions. But appealing package design can trigger purchase intentions.

Size shape and package material helps customers in evaluating the ease of use of the product or package convenience (Ksenia Polyakova 2013). Srividya Raghavan (2010) studied the impact of shape of the products packaging. Two experiments were conducted, in the first experiment on advertisement having product packages in golden ratio was shown and in second experiment physical product was shown and in both cases significant impact of shape of the product packages was found on both preferences and purchase intention.

Edward S.T. Wang, (2013) studied the effect of consumer attitudes toward visual food packaging on perceived product quality, product value, and brand preference. The results indicated that visuals on the product package helps customers in developing perceptions towards the quality of the product and perceived value of the product that in turn coverts into brand preference.

Organizations are spending huge money in hiring a celebrity endorser in their products advertisements for increasing sales of their products. Customers follow their favorite celebrities in product purchase decisions. Specifically in teenagers it has been identified that purchase intention towards celebrity endorsed products is higher Ling Chang (2011). Ali Ahmed, Farhan Azmat Mir and Omer Farooq (2012) revealed that advertisements having celebrities were more affective compared to non celebrity advertisements. Some organization use animated spokesperson in their advertisement rather celebrities and researches have proved that purchase intention towards celebrity endorsed product is higher compared to animated spokespersons (Shailja Bhakar, Shilpa Bhakar and Monika Mittal 2013)

Qurat-Ul-Ain Zafar and Mahira Rafique (2012) took three factors of celebrity endorsement in the research which was credibility, physical attractiveness and celebrity congruence with the product. The authors proposed that if the celebrity is attractive, customers can trust him/her and there is a match between the product and celebrity then product features take a secondary place and celebrity endorsement leads to purchase intentions of the product. Matchup between

the product and celebrity is more important than the physical attractiveness of the celebrity (Farhan Azmat Mir and Omer Farooq 2012, Subhadip Roy 2012). In case of a mismatch between the celebrity and the product effect of celebrities endorsing few brands on purchase intention was found to be higher than the celebrities endorsing multiple brands (Subhadip Roy 2012).

Bilal Mustafa Khan (2013) developed a model with factors of celebrity endorsement such as trustworthiness, expertise and attractiveness as independent variables and purchase intention as dependent variable. The results indicated that there is a significant effect of trustworthiness, expertise and attractiveness of celebrity on purchase intention (Au-Yeung Pui Yi 2012 & Subhadip Roy 2012).

Subhadip Roy (2012) contradicts the results of previous studies that have proved that celebrity attractiveness increases purchase intention. Organizations using celebrity appeal should evaluate the popularity of the celebrity they are using in their product advertisements. Only celebrity appeal doesn't increases the purchase intentions towards products organizations should also consider other factors such as product packaging, customer knowledge in turn to gain more customers for their brands (P.K. Agarwal, Manish Kumar and Pradeep Kumar 2013). According to Au-Yeung Pui Yi (2012) Celebrity endorser doesn't influence the customers to pay premium prices for the product.

Hsinkuang Chi, Huery Ren Yeh, and Yi Ching Tsai (2011) studied the relationship between perceived value and purchase intention having celebrity endorser as the moderating variable. The results indicated a significant relationship between perceived value and celebrity endorsement as well as perceived value and purchase intentions whereas it was found that the interaction between perceived value and celebrity endorser does not have a significant impact on purchase intention. Some more dimensions have also been studied in different researches that effect purchase intention such as enjoyment value, character competency value, and visual authority value, monetary value (Chieh-Min Chou and Aswin Kimsuwan 2013).

Many researchers have proved that perceived value dimensions such as social value, emotional value and functional value etc effect purchase intentions of products (Ying-Feng Kuo, Chi-Ming Wu and Wei-Jaw Deng 2009, Eun Jung Choi & Soo-Hyun Kim 2013, Lifang. Peng & Shuyi, Liang 2013, Aybeniz Akdeniz AR 2012). In case of online purchase limited time promotional offers emotional value leads to higher purchase intentions Lifang. Peng and Shuyi, Liang (2013) whereas in case of food products impact of social value, perceived quality, perceived price is higher and no effect of emotional value was found on purchase intention Aybeniz Akdeniz AR (2012).

Rashid Shafiq, Irfan Raza and Muhammad Zia-ur-Rehman (2011) indicated that there is a significant effect of customer knowledge, product packaging/design and celebrity endorsement on purchase intention of a product. Perceived value was taken as the mediating variable in the study therefore the model having customer knowledge, product packaging/ design and celebrity endorsement as independent variable along with mediating variable perceived value and purchase intention as dependent variable was again checked and it was found that perceived value does not change the effect of independent variables on dependent variable of the study.

Objectives
1. To standardize questionnaires on celebrity endorsement, product packaging, customer knowledge, perceived value and purchase intention.

2. To identify underlying factors of celebrity endorsement, product packaging, customer knowledge, perceived value and purchase intention.

3. To evaluate cause and effect relationship between celebrity endorsement, product packaging on customer knowledge.

4. To evaluate cause and effect relationship between celebrity endorsement, product packaging and perceived value.

5. To evaluate cause and effect relationship between customer knowledge and perceived value.

6. To evaluate cause and effect relationship between celebrity endorsement.

7. To evaluate difference between different brands and gender in case of celebrity endorsement, product packaging, customer knowledge, perceived value and purchase intention.

8. To identify new avenues for further research.

Hypothesis

H01: There is no significant relationship between celebrity endorsement and customer knowledge

H02: There is no significant relationship between product packaging and customer knowledge

H03: There is no significant relationship between celebrity endorsement and perceived value

H04: There is no significant relationship between product packaging and perceived value

H05: There is no significant relationship between customer knowledge and perceived value

H06: There is no significant relationship between celebrity endorsement and purchase intention

H07: There is no significant relationship between product packaging and purchase intention

H08: There is no significant relationship between customer knowledge and purchase intention

H09: There is no significant relationship between perceived value and purchase intention

H010: There is no significant difference between responses towards celebrity endorsement of all the brands

H011: There is no significant difference between product packaging of all the brands

H012: There is no significant difference between customer knowledge of all the brands

H013: There is no significant difference between perceived values of all the brands

H014: There is no significant difference between purchase intentions of all the brands

H015: There is no significant difference between males and females responses towards celebrity endorsement

H016: There is no significant difference between males and females responses towards product packaging

H017: There is no significant difference between males and females knowledge

H018: There is no significant difference between males and females towards perceived value of the product

H019: There is no significant difference between males and females towards purchase intentions of the product

Hypothetical model
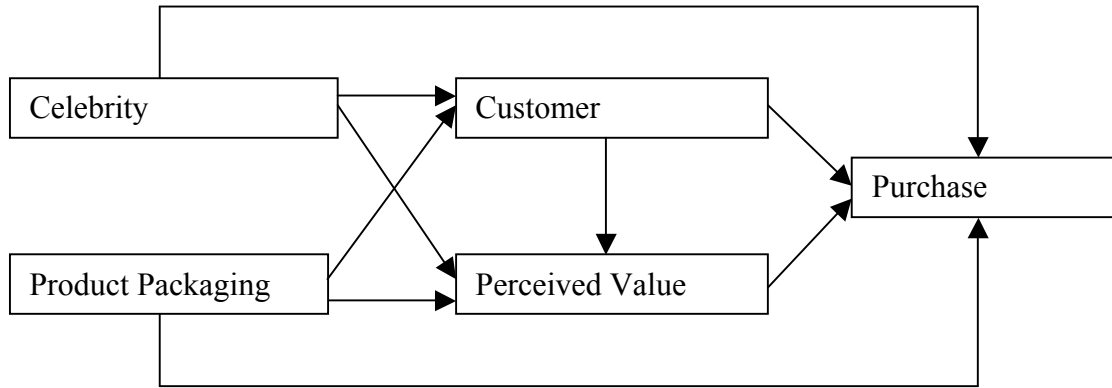
RESEARCH METHODOLOGY

The study was causal in nature with survey method being used to complete the study. Cause and effect relationship between celebrity endorsement and product packaging on customer knowledge and perceived value, cause and effect relationship between celebrity endorsement, product packaging, customer knowledge and perceived value on purchase intention was identified. Population included customers of different brands of shampoos. Individual respondents were the sampling element. Non – Probability quota sampling technique was used to select the sample. The sample size was 150 respondents.

Standardized questionnaire of Rashid Shafiq, Irfan Raza and Muhammad Zia-ur-Rehman (2011) were used to evaluate celebrity endorsement, product packaging, customer knowledge, perceived value and purchase intention. Data was collected on a five point Likert type scale where 1 indicated minimum agreement and 5 indicated maximum agreement. Reliability test were applied to find out the reliability of the questionnaires, Principle component factor analysis was applied to find out the underlying factors of the questionnaires also KMO test was applied for sampling adequacy and Bartlett's test of sphericity was also applied. ANOVA was applied to test the effect of different brands and gender on celebrity endorsement, product packaging, customer knowledge, perceived value and purchase intention. Structural Equation Modeling through AMOS 17 was applied to evaluate the relationship between the variables of the study.

RESULTS

Reliability

Reliability test was applied on celebrity endorsement, product packaging, customer knowledge, perceived value and purchase intention questionnaires and the results are as follows:

S No	Variable	Cronbach Alpha	Number of items
1	Celebrity Endorsement	.734	2
2	Product Packaging	.701	4
3	Customer Knowledge	.639	2
4	Perceived Value	.502	3
5	Purchase Intention	.554	4

The reliability value more than 0.5 is considered good and the table indicates that the reliability value of Cronbach's Alpha was found higher than standard value for all the variables of the study. Therefore we can say that the celebrity endorsement, product packaging, customer knowledge, perceived value and purchase intention questionnaires were found to be reliable for conducting the study.

Kaiser Mayer Olkin Measure of Sampling Adequacy and Bartlett's test of Sphericity

S No	Variable	KMO Measure for sampling Adequacy	Bartlett's test of Sphericity (Chi Square)	Sig
1	Celebrity Endorsement	.500	60.571	.000
2	Product Packaging	.734	101.966	.000
3	Customer Knowledge	.500	36.965	.000
4	Perceived Value	.590	26.851	.000
5	Purchase Intention	.629	47.197	.000

Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy: The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is an index used to examine the appropriateness of factor analysis. High values (between 0.5 and 1.0) indicate factor analysis is appropriate. Values below 0.5 imply that factor analysis may not be appropriate. The Kaiser - Meyer - Olkin Measure of Sampling Adequacy value for all measures was higher than 0.5 indicating that the sample was adequate for factor analysis.

Bartlett's test of Sphericity: Bartlett's test of sphericity is a test statistic used to examine the hypothesis that the variables are uncorrelated in the population. In other words, the population correlation matrix is an identity matrix; each variable correlates perfectly with itself ($r = 1$) but has no correlation with the other variables ($r = 0$). The Bartlett's Test of Sphericity was tested through Chi-Square value having a value of 60.571 for celebrity endorsement, 101.966 for product packaging, 36.965 for customer knowledge, 26.851 for perceived value and 47.197 for purchase intention, which are significant at 0% level of significance, indicating that the data was suitable for factor analysis

ANOVA

Table 4.12a: Testing Homogeneity of Error Variances

Box's Test of Equality of Covariance Matrices[a]	
Box's M	97.583
F	1.186
df1	75
df2	3.486E4
Sig.	.130
Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.	
a. Design: Intercept + Gender + Brand + Gender * Brand	

Overall homogeneity of error variances among groups formed on the basis of Gender and Brand for all the variables was tested using Boxe's M test. The test value of F was found to be 1.186, significant at 0.130 indicating that the error variances are equal or the groups are homogeneous.

Table 4.12b Levene's test of Equality of Error Variance for Gender and Brand as Independent Variables and Celebrity Endorsement, Product Packaging, Customer Knowledge, Perceived Value and Purchase Intentions as Dependent Variables

Levene's Test of Equality of Error Variances[a]				
	F	df1	df2	Sig.
CustomerKnowledge	1.344	5	144	.249
CelebrityEndorsement	3.314	5	144	.007
ProductPackaging	1.265	5	144	.282
PerceivedValue	.715	5	144	.613
PurchaseIntention	.409	5	144	.842
Tests the null hypothesis that the error variance of the dependent variable is equal across groups.				
a. Design: Intercept + Gender + Brand + Gender * Brand				

Levene's test was applied to evaluate the homogeneity of variance between different groups formed on the basis of different brands and gender of respondents. The value of F for customer knowledge is 1.344 significant at 0.249, for product packaging is 1.265 significant at 0.282, for perceived value is 0.715 significant at 0.613, for purchase intention is 0.409 significant at 0.842, indicating that the difference between the variances of the groups formed on the basis of gender and brand are not significant. Thus, the groups formed on the basis of gender and brands are homogeneous for product packaging, customer knowledge, perceived value and purchase intention variable. Celebrity endorsement was the only variable for which the F value was significant. The value of F for this variable was 3.314 which was significant at 0.007 level of significance. This indicated that the groups formed on the basis of gender and brand for celebrity endorsement were not homogeneous.

The model having three brand categories and both genders (males and females) as independent variables and customer knowledge, celebrity endorsement, product packaging, perceived value and purchase intention as dependent variables was having a poor fit in all cases of customer knowledge, celebrity endorsement, product packaging, perceived value and purchase intention. This was tested through F test value of 1.072 for customer knowledge significant at 0.378, F test value of 1.610 for celebrity endorsement significant at 0.161, F test value of 1.166 for product packaging significant at 0.329, F test value of 1.624 for perceived value significant at 0.157 and F test value of 2.202 for purchase intention significant at 0.057 respectively.

The intercept values indicated significant intersectional relationship between the dependent and independent variables. The test statistic used for identifying the effect was F test having values of 1.914E3, 1.838E3, 2.612E3, 2.926E3 and 3.008E3 significant at 0.000 level of significance for all the five dependent variables.

Genders was having a significant effect on celebrity endorsement and purchase intention as dependent variables tested through F test value 4.915 and 4.321 significant at 0.028 and 0.039 indicating difference in responses of both males and females in case of celebrity endorsement and purchase intention. On the other hand gender was not having a significant effect on customer knowledge, product packaging and perceived value as dependent variables. The significance of the effect was evaluated through F test statistic having values of 1.079, 1.065 and 0.901 significant at 0.301, 0.304 and 0.344 level of significance. Indicating no significant difference between both males and females responses towards customer knowledge, product packaging and perceived value.

Table 4.13 Test between Subject Effects for Gender and Brand as Independent Variables and Customer Knowledge, Celebrity Endorsement, Product Packaging, Perceived Value and Purchase Intention as Dependent Variables

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	CustomerKnowledge	24.140a	5	4.828	1.072	.378
	CelebrityEndorsement	109.173b	5	21.835	1.610	.161
	ProductPackaging	19.313c	5	3.863	1.166	.329
	PerceivedValue	43.820d	5	8.764	1.624	.157
	PurchaseIntention	95.553e	5	19.111	2.202	.057
Intercept	CustomerKnowledge	8618.460	1	8618.460	1.914E3	.000
	CelebrityEndorsement	24935.707	1	24935.707	1.838E3	.000
	ProductPackaging	8648.807	1	8648.807	2.612E3	.000
	PerceivedValue	15790.140	1	15790.140	2.926E3	.000
	PurchaseIntention	26109.607	1	26109.607	3.008E3	.000
Gender	CustomerKnowledge	4.860	1	4.860	1.079	.301
	CelebrityEndorsement	66.667	1	66.667	4.915	.028
	ProductPackaging	3.527	1	3.527	1.065	.304
	PerceivedValue	4.860	1	4.860	.901	.344
	PurchaseIntention	37.500	1	37.500	4.321	.039
Brand	CustomerKnowledge	13.240	2	6.620	1.470	.233
	CelebrityEndorsement	9.453	2	4.727	.348	.706
	ProductPackaging	5.613	2	2.807	.848	.431
	PerceivedValue	8.440	2	4.220	.782	.459
	PurchaseIntention	50.333	2	25.167	2.900	.058
Gender * Brand	CustomerKnowledge	6.040	2	3.020	.671	.513
	CelebrityEndorsement	33.053	2	16.527	1.218	.299
	ProductPackaging	10.173	2	5.087	1.536	.219
	PerceivedValue	30.520	2	15.260	2.828	.062
	PurchaseIntention	7.720	2	3.860	.445	.642
a. R Squared = .036 (Adjusted R Squared = .002)						
b. R Squared = .053 (Adjusted R Squared = .020)						
c. R Squared = .039 (Adjusted R Squared = .006)						
d. R Squared = .053 (Adjusted R Squared = .021)						
e. R Squared = .071 (Adjusted R Squared = .039)						

All three brands of shampoos did not have significant effect on customer knowledge, celebrity endorsement, product packaging, perceived value and purchase intention as dependent variables. The significance of the effect was evaluated through F test statistic having values of 1.470, 0.348, 0.848, 0.782 and 2.900 significant at 0.233, 0.706, 0.431, 0.459 and 0.058 level of significance. The interaction effect of gender and brand was not significant on customer knowledge, celebrity endorsement, product packaging, perceived value and purchase intention as dependent variables. The significance of the effect was evaluated through F test statistic

having values of 0.671, 1.218, 1.536, 2.828 and 0.445 significant at 0.513, 0.299, 0.219, 0.062 and 0.642 level of significance. Therefore null hypothesis H016 and H019 were rejected whereas H010, H011, H012, H013, H014, H015, H017 and H018 were accepted

Post Hoc

No significant difference was found between the celebrity endorsement, customer knowledge, product packaging and perceived value of all the three brands i.e. Pantene, Head and Shoulder and L'Oreal whereas a significant difference was found between the purchase intention of Head and Shoulder and L'Oreal shampoos and the mean value indicated that purchase intention for Head and Shoulder was higher compared to L'Oreal Shampoo. No significant difference was found between the purchase intention of Pantene and Head & Shoulder as well as Pantene and L'Oreal Shampoo. Mean value table also indicated that customer knowledge was highest in case of Head & Shoulders, celebrity endorsement was also rated highest in case of Head & Shoulders, packaging of L'Oreal shampoo was rated highest and also perceived value of Head & Shoulders was rated highest among the three brands.

Descriptive Statistics				
	Brand	Mean	Std. Deviation	N
Customer Knowledge	1	7.7800	2.20658	50
	2	7.8000	2.01018	50
	3	7.1600	2.13197	50
	Total	7.5800	2.12454	150
Celebrity Endorsement	1	13.0400	4.32345	50
	2	13.1000	2.72741	50
	3	12.5400	3.97035	50
	Total	12.8933	3.72034	150
Product Packaging	1	7.3200	2.02474	50
	2	7.7200	1.85208	50
	3	7.7400	1.57545	50
	Total	7.5933	1.82487	150
Perceived Value	1	10.2800	2.53981	50
	2	10.5400	2.12094	50
	3	9.9600	2.37298	50
	Total	10.2600	2.34715	150
Purchase Intention	1	13.0600	3.35887	50
	2	13.9600	2.70268	50
	3	12.5600	2.80058	50
	Total	13.1933	3.00491	150

Structural Model – Hypotheses Testing

SEM was conducted on the structural model using Amos 17 to test the hypotheses formulated at the initial stage of the study. Here the full structural equation model is considered and the hypotheses to be tested relates to the pattern of causal structure linking several variables that bear on the construct of purchase intention. In reviewing the SEM path model it was seen that Purchase Intention is influenced by the Celebrity Endorsement also Customer Knowledge and Perceived Value both were influenced by Celebrity Endorsement and Product Packaging.

Purchase Intention was also influenced by Celebrity Endorsement and Product Packaging and Customer Knowledge having mediating variable Perceived Value. Perceived Value was influenced by Customer Knowledge.

Hypothesized Relationships

In this section of analysis the hypotheses testing and results are presented through inter-construct correlation matrix

Construct	Hypothesized Relationships		
Product Packaging	Customerknowledge	<---	Productpackaging
Celebrity Endorsement	Customerknowledge	<---	Celebrityendorsement
Customer Knowledge	Perceivedvalue	<---	Celebrityendorsement
Perceived Value	Perceivedvalue	<---	Customerknowledge
Purchase Intention	Perceivedvalue	<---	Productpackaging
	Purchaseintention	<---	Celebrityendorsement
	Purchaseintention	<---	Productpackaging
	Purchaseintention	<---	Customerknowledge
	Purchaseintention	<---	Perceivedvalue

Goodness of Fit Indices

Goodness of fit indices and other parameters estimates were examined to evaluate the hypothesized structural model. Assessment of parameter estimates results suggested that all hypothesized paths were significant accept in case of celebrity endorsement and product packaging as independent variable, customer knowledge as mediating variable and purchase intention as dependent variable. These results are presented in detail as follows.

The fit indices shown in table indicate that the hypothesized structural model provided the good fit to the data. Although the likelihood ratio chi-square ($\chi2$ =15.865; df = 1) was significant (p =.000); the other fit measures also showed that model does not adequately fit the observed data. The absolute fit measures i.e. GFI was significant (0.961) and RMSEA was insignificant (0.316) respectively indicating poor fit of model. The incremental fit measures i.e. NFI and CFI were 0.911 and 0.911 respectively, which were above the minimum requirement showing adequate fit and the parsimony fit measure i.e. AGFI was 0.418, which also was much below the cut-off point of > 0.9). In addition to these indices, the $\chi2$/ df = 15.865 was not within the threshold level i.e. 1.0 < x2 / df < 3.0) not supporting these findings.

Structural model fit measure assessment

	$\chi2$	Df	Absolute fit measures			Incremental fit measures		Parsimony fit measure
			$\chi2$/df	GFI	RMSEA	NFI	CFI	AGFI
Criteria			1<X2/df<3	≥0.90	<0.05	≥0.90	≥0.90	≥0.90
Obtained	15.865	1	15.865	0.961	0.316	0.911	0.911	0.418

Note: $\chi2$ = Chi-square; df = degree of freedom; GFI = Goodness of fit index; RMSEA = Root mean square error of approximation; NFI = Normated fit index; CFI = Comparative fit index; AGFI – Adjusted goodness of fit index

Another most important part of structural model assessment is coefficient parameter estimates. The parameter estimates were used to produce the estimated population covariance matrix for the structural model. The covariance matrix among the constructs was applied to test the model. When the critical ratio (CR or t value) is higher than 1.96 for an estimate (regression weight), then the parameter coefficient value is statistically significant at the .05 levels (Hair et. al. 2006). Critical ratio or t-value was obtained by dividing the regression weight estimate by the estimate of its standard error (S.E). Using the path estimates and CR values, Nine causal paths were examined in this research study. The causal paths estimates t-

values were above the 1.96 critical values at the significant level p ≤.05. These results implied the regression weight estimates are 0.023 standard errors above zero.

Regression estimates of latent constructs

| Relationship between variables			Estimate	S.E.	C.R.	P
Customerknowledge	<---	Productpackaging	.512	.083	6.131	***
Customerknowledge	<---	Celebrityendorsement	.060	.041	1.477	.140
Perceivedvalue	<---	Celebrityendorsement	.158	.042	3.790	***
Perceivedvalue	<---	Customerknowledge	.122	.083	1.479	.139
Perceivedvalue	<---	Productpackaging	.526	.094	5.585	***
Purchaseintention	<---	Celebrityendorsement	.305	.058	5.250	***
Purchaseintention	<---	Productpackaging	-.232	.138	-1.677	.094
Purchaseintention	<---	Customerknowledge	-.082	.111	-.737	.461
Purchaseintention	<---	Perceivedvalue	.473	.109	4.324	***

Note: Estimate = regression weight; S.E = standard error; C.R = critical ratio, P = significance value

Results presented in Table indicate that the hypothesized paths between independent variables and dependent variables were significant in few cases and insignificant in other few. For instance, the hypothesized path between product packaging and customer knowledge with CR value of 6.131 (>1.96) was statistically significant (p = 0.000), celebrity endorsement and customer knowledge with CR value of 1.477 (<1.96) was statistically insignificant (p = 0.140), celebrity endorsement and perceived value with CR value of 3.790 (>1.96) was statistically significant (p = 0.000), customer knowledge and perceived value with CR value of 1.479 (<1.96) was statistically insignificant (p = 0.139), product packaging and perceived value with CR value of 5.585 (>1.96) was statistically significant (p = 0.000), celebrity endorsement and purchase intention with CR value of 5.250 (>1.96) was statistically significant (p = 0.000), product packaging and purchase intention with CR value of -1.677 (<1.96) was negative and was statistically insignificant (p = 0.094), customer knowledge and purchase intention with CR value of -0.737 (<1.96) was negative as well as statistically insignificant (p = 0.461), perceived value and purchase intention with CR value of 4.324 (>1.96) was statistically significant (p = 0.000).

Further the β values the standardized regression weight table indicates statistical significance for all the hypothesis accept product packaging as independent variable and purchase intention as dependent variable also customer knowledge as independent variable and purchase intention as dependent variable:

Relationship between variables			Estimate
Customerknowledge	<---	Productpackaging	.446
Customerknowledge	<---	Celebrityendorsement	.108
Perceivedvalue	<---	Celebrityendorsement	.260
Perceivedvalue	<---	Customerknowledge	.113
Perceivedvalue	<---	Productpackaging	.425
Purchaseintention	<---	Celebrityendorsement	.378
Purchaseintention	<---	Productpackaging	-.141
Purchaseintention	<---	Customerknowledge	-.057
Purchaseintention	<---	Perceivedvalue	.355

The diagram on next page shows the final structural Equation model was obtained through AMOS 17
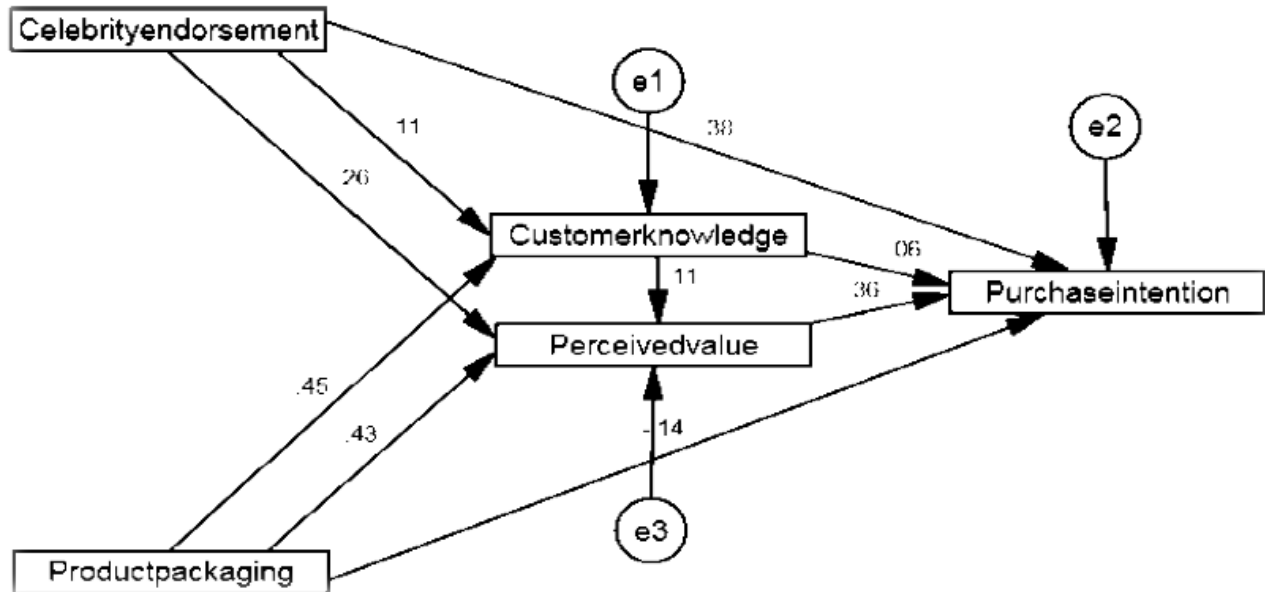
Finally the structural equation modeling results indicated that celebrity endorsement explains 11% variance in customer knowledge and 26% variance perceived value, product packaging explains 45% variance in customer knowledge and 43% variance in perceived value, celebrity endorsement directly explains 38% variance in purchase intention as well as celebrity endorsement, product packaging and customer knowledge along with perceived value as the mediating variable explain 36% variance in purchase intention. Customer knowledge explained 11 % variance in perceived value of the product. A negative insignificant effect of product packaging was found on purchase intentions individually with -0.141 variance explained, as well as when celebrity endorsement and product packaging effect was checked on purchase intention taking customer knowledge as the mediating variable the effect was negative and insignificant with -0.057 % of variance explained. Therefore null hypothesis H01, H02, H03, H04, H05, H06, H07, H08 and H09 were rejected

CONCLUSION

Standardized questionnaire on celebrity endorsement, product packaging, customer knowledge, perceived value and purchase intention were standardized again for application of the questionnaires in Indian context. Reliability and factor analysis was used to standardize the questionnaires.

MANOVA was used to identify the difference between all the continuous variables in case of categorical variables brands and gender. The result indicated no significant differences in most of the cases accept difference in both male and female respondents towards celebrity endorsement and purchase intention. Which means male and female differ in their celebrity evaluations and their purchase intentions also differ due to differences in evaluation criteria.

Structural Equation Modeling was applied to develop a relational model between celebrity endorsement, product packaging, customer knowledge, perceived value and purchase intentions. The results indicated that celebrity endorsement effects both customer knowledge and perceived value, product packaging also significantly affect customer knowledge and perceived value, direct effect of celebrity endorsement was also found on purchase intention as well as in effect of celebrity endorsement, product packaging and customer knowledge was found higher when perceived value was taken as the mediating variable. Customer knowledge also effects perceived value of the product. No significant effect of product packaging was found on purchase intentions individually, as well as when celebrity endorsement and product

packaging effect was checked on purchase intention taking customer knowledge as the mediating variable the effect was not significant.

From the above results it can be concluded that celebrity endorser and product packaging decisions are very important for organizations as both of them result in purchase intentions towards brands in case of shampoos. Out of both celebrity endorser decision is more important compared to product packaging as it has a direct effect as well as through perceived value effect on purchase intention whereas product packaging effects purchase intention through perceived value only. Customer knowledge is not a very important factor in case of shampoos therefore organizations can avoid making a cognitive advertisement in case of shampoos which requires lot of mental processing. The results of the study can be generalized by increasing the sample size of the study.

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