

Validating the Constructs of Purchase behaviour based on Brand Awareness & Stimuli: A Structural Equation Modelling

G. Madhumita¹ and G. Rajini^{2*}

ABSTRACT

Background: This study concentrates validating constructs influencing purchase of the facial cream products. Constructs are developed based on theoretical reviews and a model of Consumer's brand awareness is designed with the mediating effect of source credibility. Data is collected from professional women across disciplines and data analyzed by Statistical package of social science using a tool structural equation modelling.

Objective: This study aims to conceive on how the purchase is induced. Marketers create Brand awareness for an individual in today's scenario, where each individual undergoes a series of stimuli both internal and external before they actually purchase the product.

Results: The scale items developed were tested to be reliable and the constructs are valid, resulting that the model is fit one and it implies that purchase decision does depend on the variables like internal and external stimuli, brand awareness, source credibility, purchase intention and post purchase behaviour.

Conclusion: The study opens up new dialogues on the purchase of a very important commodity for women where the purchase is more influenced by brand, celebrities, myths, advertisements, promotional activities, convenience etc rather than analyzing about the ingredients, price worthiness or the real effects of the product.

Keywords: Brand Awareness, External & Internal Stimuli, Source credibility, Purchase decisions, Purchase Intention, Post Purchase behaviour.

1. INTRODUCTION

Brands represent a noteworthy position in affecting consumers' choice of purchase, as brands are becoming the essential assets in the market. Marketers are facing a lot of challenge to distinguish the values to the consumers. Brands have become wealth generators where products are not exactly differentiated, but brands are distinguished in the minds of consumers. Thus the decisions made by the consumers actually help the companies to grow and growth also for the product.¹ In this study, the process of purchase is divided into 3 stages purchase decisions, purchase intention and post purchase behavior.

A classical definition of brand awareness is defined as a power of consumers to recall an association^{2,3}. Brand awareness is essential to outline the brand image, which is shaped up by the consumers are familiar with brand name, product features and tangible / intangible benefit.² Advertisement signifies a vital position in the current scenario to figure the attitude, perception of consumers for buying activities a spirit towards any product or brand. Advertisement can lead to an embodiment of success for its survival, it can draw a huge number of consumers and in turn those brands become admired.⁴ A model created by Hovland and his associates is 'source credibility model', which states that the efficiency of a message by the factors of external stimuli

¹ Doctorate Research Scholar and Assistant Professor, School of Management Studies, VELs University, Pallavaram, Chennai, India, Email: madhusai2@gmail.com

^{2*} Associate Professor and HOD MBA- Integrated,, School of Management Studies, VELs University, Pallavaram, Chennai, India, Emails: rajini.sms@velsuniv.ac.in, dr.rajini.g@gmail.com

totally depends on expertise, trustworthiness of an endorser, where the information from the probable source may be celebrity impacts the consumers to belief, opinion, attitudes, behavior which leads to purchase intention of the facial cream brands. The term 'trustworthiness' which refers to truthfulness, integrity and believability of an endorser creates perception towards the product. Advertisers also look into these trustworthiness by choosing the exact celebrities who are concerned towards truthfulness, believability of the product,^{5,6,7}

The most significant feature in source credibility model is trustworthiness⁸. The credibility signifies that there is a consequence towards consumer's attitude and their behavioral intention.⁹ The attitude as declared has a conduct, scenery, temperament, thought and way of behaving, which can be constructive or negative to perform a vital function towards purchase of the product.¹⁰ Consumers carrying a positive attitude towards celebrity endorsements, have a huge influence on consumer's recall, attention and purchase intentions.^{11,12} Intent to purchase is a decision where consumers meticulously buy a brand. This a kind of decision is studied to find why a customer purchases a brand or anticipates to buying a brand leading to intentions of purchasing.¹³ Another study says that the purchase intention prospects customers eagerness to purchase the product.¹⁴ Consumers post purchase level of satisfaction is an endurance for numerous firms, where customers try to switch over their situation. Customer's satisfaction after a purchase is a tedious one.¹⁵ In consumer research the customer's post purchase level of satisfaction or dissatisfaction is now a foremost issue for many social and public policy makers & marketers.^{16,17}

2. RESEARCH OBJECTIVES

- To develop an conceptual model based on the previous theories and research.
- To test the reliability of the scale and validity of the model by using structured equation modeling.

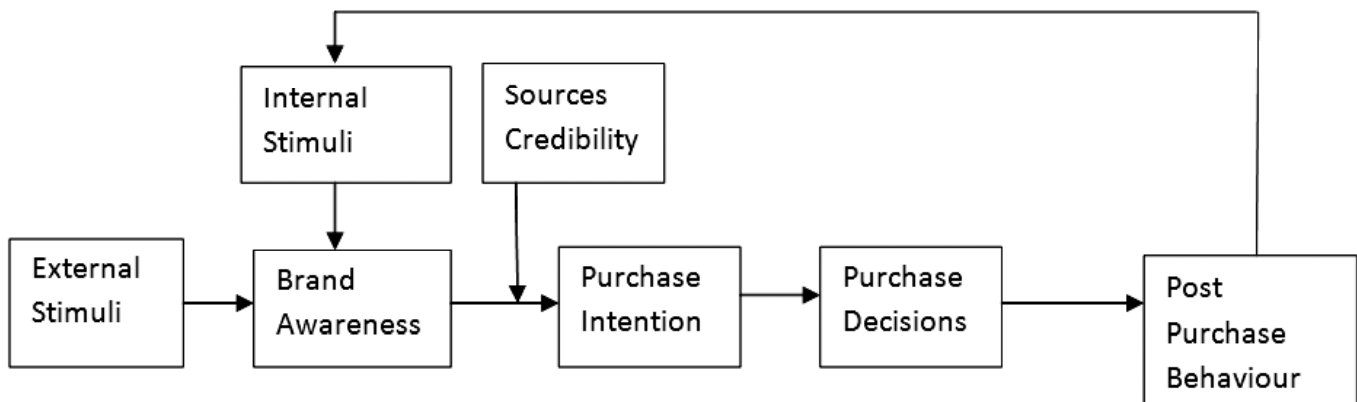


Figure 1 : Research Model -Brand Power

3. METHODOLOGY

This research is descriptive in nature as the study aims to find out the brand awareness towards facial cream product for professional working women. This article utilized both primary and secondary data¹⁸. The study is carried out by designing a structured questionnaire. The -respondents were in the age group of 20 years to 70 years and professional working women were chosen from various sectors. Consumers in various categories like advocate, doctor, academicians, administrators and engineering & technology sectors were asked to respond for the questionnaire. The product chosen was facial cream, as it is qualified as one of the essential products among the skin care products.

The questionnaire comprised of 4 sections:

Section A: The primary section of the instrument had a forced choice of questions about the consumers' demographic profile, like age, income, occupation, monthly status, types of outlet, etc.

Section B: Second section comprised on how facial cream product influences the consumer purchase buying behavior.

Section C: Categorized into external & internal stimuli (items 1 to 47) - brand awareness (item nos : 48 to 67) - source credibility (item nos : 68 to 77) which contains 77 items &

Section D: Questions comprised of Purchase intention (item nos: 77 to 87), purchase decision (item nos: 88 to 114) & post purchase behavior (items: 115 to 131), which contains 55 items (figure no: 1). The instrument urbanized pilot tested¹⁹, it was a discussions done with advocates, doctors, academicians, engineering and technology, administrators and others. A pilot study was conducted with 92 respondents who are using facial cream brand with the help of multiple choice, open-ended questions, close – ended questions using likert like scale were used ranging from ‘Strongly Agree (5), Agree (4), Partially Agree (3), Disagree (2), Strongly Disagree (1) for statements in sections C & D.

4. RELIABILITY AND VALIDITY ANALYSIS RESULTS

Cronbach’s alpha for all the variables present in the conceptual model were calculated (Table 1 & 2) and the coefficient (number between 0 and 1) is used to rate the internal consistency (homogeneity) or the correlation of items in a test construct. The test has a very strong internal consistency where measurement expert’s opinion that, it should show only moderate correlation among items (0.70 to 0.90). The reliability coefficients should be more than 0.70, to consider it as an acceptable value for the particular variable. It states that the variables which have Cronbach’s Alpha of more than 0.6 are accepted in marketing studies^{20,21}.

Here Reliability analysis pictures that all the variables have shown alpha greater than 0.7, indicating a strong evidence of reliability and the overall reliability of the instrument is 0.94 (shown in Table 1). So, the items constituting each variable under study have reasonable internal consistency and shows that all the dimensions of Brand Awareness have a positive reliability. The constructs included for analysis possesses a good degree of reliability to support the model developed. All dimensions have got significant relationship to make the real representation of the study. Hence it is concluded that the items developed are highly reliable.

Convergent validity assess the level to which the items from the measures are related to other events of the similar or related constructs.²² Convergent validity is tested in several ways. First the convergent validity is assured by significant factor loadings (above .50) in the measurement model of SEM.^{23,24,25}.

Table 1
Reliability

<i>Cronbach’s Alpha value</i>	<i>Cronbach’s Alpha value which bases on Standardized items</i>	<i>No. of Items in the questionnaire</i>
0.949	0.953	131

Table 2
Reliability for each Constructs

<i>Constructs</i>	<i>Indicators</i>	<i>Constructs Reliability</i>
External Stimuli	19	0.826
Internal Stimuli	28	0.822
Brand Awareness	20	0.827
Source Credibility	10	0.781
Purchase Intention	20	0.827
Purchase Decisions	15	0.821
Post Purchase Behavior	29	0.907

Table 3
Convergent Validity

<i>Constructs/Variables</i>	<i>Chi-Square Value</i>	<i>p-Value</i>	<i>GFI</i>	<i>RMR</i>	<i>AVE</i>
External Stimuli	7.480	0.01	0.847	0.036	0.642
Internal Stimuli	6.54	0.00	0.971	0.139	0.737
Brand Awareness	22.73	0.00	0.964	0.101	0.522
Source Credibility	12.77	0.00	0.977	0.322	0.635
Purchase Intention	8.031	0.00	0.834	0.154	0.502
Purchase Decisions	7.515	0.00	0.903	0.058	0.745

Based on data collected for the study from professional working women, reliability and convergent validity of the constructs in the model were established through Structural Equation Modelling (SEM). The results indicated (Table 3) the variables used in the conceptual model, which portrayed a positive relationship between the variables (external stimuli, internal stimuli, brand awareness, source credibility, purchase decisions, purchase intention and post purchase behaviour).

The brand awareness had a positive relationship with the all the purchase variables. The result of these variables showed a goodness of model fit ($\chi^2 = 64$, $df = 9$, $p < .001$). RMR - Root Mean Square Residual resulted that value RMR is an exact fit, almost all the variables are close to 0 value, thus proving that the conceptual model is a good fit. The values of average variance extracted (AVE) is computed as the sum of the squared standardized factor loadings divided by the number of items, as shown in Table 2.

A good rule of thumb is an AVE of .5 or higher indicates optimum convergent validity. An AVE estimate has been computed for each latent construct in the conceptual model. (Table 2). Thus the existing theory is tested by the samples and a model is proved with respect to purchase influence of facial cream products with special reference to professional women. As the purchasing power is more for such buyers in cosmetic industry they had contributed to this special study.

5. DISCUSSION

The cosmetic industry has become most prominent sector in India. Indian women are now very familiar with most of the existing facial cream cosmetic products. Indian market does have potential market compared to other countries. Half of the Indian population is mostly dominated by women and the study concentrates on professional working women. Many companies also invest money in the Indian Market and the major aim of the Indian market is to satisfy the potential women customer. The study endeavours to understand how the consumer's internal and external stimuli leads to purchase and post purchase of a facial cream brand and from where the consumers derive the knowledge of purchasing the product. The external and internal stimuli like advertisement, store, promotions and celebrity endorsement, consumers' attitude, belief, perception & personality with the mediating effect of source credibility leads to purchase decision. In this fast moving world very few customers look into the ingredients present in the facial cream products like hydroquinone, kojic acid, arbutin, Vitamin C or ascorbic acid, lactic acid which help in skin lightening and acts as a whitening agent.

6. CONCLUSION

According to the internet source in 2012 sales of skin creams for lightening and fairness totalled around 258 tonnes and in the global market they are projected to reach US\$19.8 billion by 2018. Thus this research contributes to the body of knowledge in the area of brand awareness of facial cream products where the consumers' urge towards post purchase behavior, an exact stimuli to purchase the facial cream brand. From

the academicians view the study opens up new dialogues on the purchase and post purchase behaviour of the consumers with the mediating effect of source credibility. The variables in external stimuli like advertisement, stores, promotions and celebrity endorsement and the variables of internal stimuli like consumers attitude & beliefs, perception and personality shows the right coefficient of reliability and validity analysis, thus by proving the necessity for further in- depth analysis.

Further, the study contributes to the marketers' better understanding of professional working women and to know their stimuli which urges them to purchase the product and to find out the level of satisfaction and dissatisfaction of the facial cream products - whether it leads to purchase, repurchase the product or switch over the product as they are triggered by very complicated stimulus.

REFERENCE

- [1] Kandsamy. C (2013), "A Study On The Impact Of Consumer Behavior And Brand Equity On Durable Products-With Special Reference To Bangalore District". Anna University, 2013.
- [2] Keller, K.L. (1993), "Conceptualizing, Measuring, and Managing Customer-Based Brand Equity, Journal of Marketing," Vol. 57, Pg. No: 1-22.
- [3] Aaker, D. A. (1991), "Managing Brand Equity: Capitalizing On The Value Of A Brand Name." New York: The Free Press.
- [4] Muhammad Ehsan Malik, Muhammad Mudasar Ghafoor & Hafiz Kashif Iqbal(2014), "The Impact of Advertisement And Consumer Perception On Consumer Buying Behavior," International Review of Social Sciences and Humanities Vol. 6, No. 2, pp. 55-64
- [5] Jay Prakash Trivedi (2009), "Celebrity Endorsement And Its Influence On Consumer Behaviour." Gujarat University, 2015.
- [6] Erdogan, B. (1999), "Celebrity Endorsement, a literature review", Journal of Marketing Research, Vol. 15, No. 3, pp. 291-314.
- [7] Ohanian, R. (1991), "The Impact Of Celebrity Spokespersons Perceived Image On Consumers' Intention To Purchase", Journal of Advertising Research, Vol. 31, No. 1, pp. 46-53.
- [8] Friedman H, H, Termini, S, & Washington, R. (1976), "The effectiveness of advertisements Utilizing Four Types of Endorsers", Journal of Advertising, 5(3), pg: 22.
- [9] Belch, G. E. and Belch, M. A. (1998), "Advertising and Promotion", New York: McGraw-Hill, 1998.
- [10] Shugan, S. M., Swait, J. (2000), "Enabling Movie Design And Cumulative Box Office Predictions Using Historical Data and Consumer Intent-to-View." ARF Conference Proceedings.
- [11] Seno, D. and Lukas, B. A.(2007), "The Equity Effect of Product Endorsement By Celebrities: A conceptual Framework From a Co-Branding Perspective", European Journal of Marketing, Publisher: Emerald Group Publishing Limited, Vol. 41, No. 1/2, pp. 121-134.
- [12] O'Mahony, S. and Meenahgan, T. (1997), "Research the Impact of Celebrity Endorsements on Consumers", In New Ways for Optimizing Integrated Communications, The Netherlands: ESOMAR, pp. 1-16.
- [13] Porter, M.E., (1974), "Consumer Behaviour, Retailer Power And Market Performance In Consumer Goods Industries", Rev. Econ. Stat., 56(4): 419-436.
- [14] Dodds, W.B., Monroe, K.B. & Grewal D. (1991), "Effect of Price, Brands, and Store Information on Buyers' Product Evaluations," Journal of Marketing Research, Vol.28, 307319.
- [15] Laura Lora (1992), "Customer Is Always Right- Satisfaction Research booms" Advertising Age, Feb, Pg. no .25.
- [16] Frank Business world, "Dynamic issues on customer satisfaction", 2000 pg. no. 22 & 23.
- [17] Keith H. Keith Hunt(1977), "Consumer Satisfaction & Dissatisfaction Perspective & Overview", Massachusetts, Marketing Science Institute, Pg. no. 1.
- [18] G. Rajini & G. Madhumita, "Exuberance Due to Celebrity Endorsement On Brands: A Product Categorical Study", Indian Journal of Science and Technology, Vol 9(32), DOI: 10.17485/ijst/2016/v9i32/98664, August 2016, ISSN (Print): 0974-6846, ISSN (Online) : 0974-5645
- [19] G. Rajini (2013), "Vital Strategies Discriminating Global and Local Organizations", Global Business Review, 14(2), Sage Publications, 225-241.

- [20] Nunnally, J. C. (1978), "Psychometric theory", New York: McGraw-Hill.
- [21] D. George & P. Mallery (2003), "SPSS for Windows Step by Step: A Simple Guide and Reference", 11.0 Update, 4th ed. Boston: Allyn & Bacon.
- [22] Pedhazur, E. J., & Schmelkin, L. P. (1991), "Measurement, Design, and Analysis: An Integrated Approach", NJ: Lawrence Erlbaum Associates.
- [23] Anderson, J. C., & Gerbing, D. W. (1988), "Structural Equation Modelling In Practice: A Review and Recommended Two-Step Approach", *Psychological Bulletin*, 103(3), 411-423.
- [24] Bagozzi, R. P., & Yi, Y. (1988), "On The Evaluation Of Structural Equation Models", *Journal of the Academy of Marketing Science*, 16, 74-94.
- [25] Hair, J. F., Black, B., Babin, B., Anderson, R. E., & Tatham, R. L. (2006), "Multivariate Data Analysis (6th ed.)" Upper Saddle River, NJ: Prentice Hall.

