

Emotional Brand Attachment Measurement Scale (EBAMS): Scale Validation

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ABSTRACT

Aim: Emotional branding aims to connect with consumers on an emotional level, tapping into their desires, aspirations, and values. The significance of emotional connection in branding is widely acknowledged, its impact remains mostly qualitative and anecdotal. Even though the significance of emotional branding in consumer behavior (CB) is becoming more widely acknowledged, effective research and application are hindered by the lack of valid and reliable measurement scales. By validating existing Emotional Branding and Emotional Brand Attachment Measurement Scale (EBAMS) that incorporates important antecedents, will help to fill the research gap.

Methodology: The main purpose of this article is to check the existing measurement scale validity and propose a unique and valid measurement scale it has been achieved by combining Self congruence, Brand love, Self-Identity, Brand Trust, Brand Experience and Brand Satisfaction. Researcher has deployed item and respondent score analysis, exploratory factor analysis, confirmatory factor analysis and reliability analysis along with a path diagram.

Results: The new three factor dimensional Emotional Brand Attachment scale has been proposed and validated which includes 15 items from selected 30 items used for this study. CFA revealed that fit indices are valid through regression estimates values and discriminant validity tests. Further, results overall emotional brand attachment measurement scale's Cronbach alpha value is 0.947 closest to 1.

Conclusion: The proposed measurement scale is highly reliable and can be used for empirical studies and future researchers can make use of this Emotional Brand Attachment Measurement Scale (EBAMS) which has 15 statements. The EBAMS offers researchers a robust framework to explore the emotional dimensions of consumer-brand relationships and advance the understanding of this crucial aspect of marketing.

Keywords: Emotional Branding, Emotional Brand Attachment, Measurement Scale, Brand love, Brand Experience, Brand Trust

1. Introduction

Emotional branding represents a strategic approach for businesses to create meaningful connections with consumers, moving beyond just listing features and connecting with what truly matters to customers (Havlena & Ritchie, 1994). In today's competitive marketplace, where products and services increasingly almost resemble each other, emotional branding offers a distinctive avenue for differentiation and competitive advantage (Sirgy, Grewal, & Mangleburg, 1997). While the importance of emotional branding in influencing consumer behavior is widely acknowledged, the lack of valid and reliable measurement scales has lacked effective research and application in this area (Thomson, Macinnis, & Whan Park, 2005).

Despite its recognized significance, the impact of emotional branding has often been characterized by qualitative and anecdotal evidence rather than rigorous empirical research (Gentile et al., 2007). This disparity

between the acknowledged importance of emotional branding and the limited availability of robust measurement tools emphasize the need for comprehensive and systematic approaches to measure and evaluate emotional branding initiatives (Aaker, Kumar, & Leone, 2001). The minimal contribution of validated measurement scales poses a significant challenge for researchers and practitioners seeking to assess the nature and strength of emotional connections between brands and consumers (Chaudhuri & Holbrook, 2001). Without such tools, brands may struggle to monitor their progress in fostering emotional resonance and assessing the effectiveness of their branding strategies (Bagozzi et al., 1999).

Addressing this research gap, this study aims to propose a structured and reliable measurement scale for Emotional Brand Attachment. By integrating key antecedents such as self-congruence, brand love, self-identity, brand trust, brand experience, and brand satisfaction, this research endeavors to provide a comprehensive framework for assessing the emotional dimensions of consumer-brand relationships (Havlena & Ritchie, 1994; Thomson, Macinnis, & Whan Park, 2005; Aaker, Kumar, & Leone, 2001; Chaudhuri & Holbrook, 2001; Gentile et al., 2007; Bagozzi et al., 1999). The development of a validated measurement scale is advancing our understanding of emotional branding and its implications for consumer behavior (Sirgy, Grewal, & Mangleburg, 1997). By offering a robust tool for researchers and practitioners, this study seeks to facilitate empirical investigations into emotional branding and its impact on overall brand performance (Thomson, Macinnis, & Whan Park, 2005). And also, this study seeks to enhance our understanding of the emotional dimensions of consumer behavior and provide actionable insights for marketers striving to build strong and enduring brand relationships (Sirgy, Grewal, & Mangleburg, 1997; Thomson, Macinnis, & Whan Park, 2005; Aaker, Kumar, & Leone, 2001; Chaudhuri & Holbrook, 2001; Gentile et al., 2007; Bagozzi et al., 1999).

2. Review of Literature:

Mingione, Cristofaro, and Mondì (2020) posited that consumers' emotional investment in brands extends beyond conventional product attributes, necessitating a focus on emotional co-creation and brand experience to foster positive emotional connections. They advocated for a broader perspective on emotional branding beyond traditional notions of brand value. Sánchez-Fernández and Jiménez-Castillo (2021) emphasized the dual significance of emotional attachment and informational value in driving positive brand intentions, acknowledging the multifaceted nature of consumer-brand relationships. Barreda et al. (2020) has explored the impact of social media activities on brand image and emotional attachment among travelers, underscoring the complexities of quantifying emotional attachment due to its subjective nature. Vredevelde (2018) investigated the role of emotional intelligence and external emotional connections in fostering brand attachment, although without addressing other influential factors such as product quality and customer service experience. Becheur, Bayarassou, and Ghrib (2017) introduced a model of consumer-brand emotional relationships encompassing emotional co-creation, authenticity, shared experiences, and brand vulnerability. However, they highlighted challenges in maintaining emotional authenticity amidst evolving market conditions, revealing inconsistencies in emotional branding practices.

Emotional branding goes beyond just product features and benefits Kim, Y. K., & Sullivan, P. (2019). It emphasizes creating a brand that evokes emotions and builds a connection with consumers on a deeper level Mingione, M., Cristofaro, M., & Mondì, D. (2020). This type of branding aims to elicit positive feelings and associations with the brand. These emotions can range from happiness and trust to excitement and nostalgia. Emotional branding strategies focus on crafting a brand image that resonates with consumers' emotional needs and aspirations. This helps create a loyal customer base. Valkenburg and Peter (2020) conducted a comprehensive review of emotional branding in the digital age, offering insights into its manifestations in digital contexts and outlining a research agenda for future studies aimed at nurturing brand love.

Dwivedi et al. (2019) proposed a chain-of-effects model linking consumer emotional brand attachment with various perceptions and behaviors, including social media brand equity, perceived credibility, consumer satisfaction, and social media platform usage. Their study shows the interrelatedness of emotional brand attachment and consumer perceptions. In the domain of emotional branding, researchers have emphasized the importance of tailoring strategies to specific target audiences and product contexts. Kim and Sullivan (2019) highlighted the variability in the effectiveness of emotional branding strategies, contingent upon target audience characteristics and the complexities of assessing campaign efficacy across diverse product categories. So far emotional branding model / measurement scale developed by very few contributors and they have few limitations while generalizing the findings of the study. Loureiro, Ruediger, and Demetris (2012) focused on emotional branding strategies, including storytelling and influencer marketing, noting the absence of a dedicated measurement scale for emotional branding. Singla and Gupta (2019) contributed to scale development by devising a comprehensive emotional branding scale encompassing brand loyalty, association, perceived quality, and personality. Fastoso and González-Jiménez (2020) examined the relationship between materialism, ideal self-congruity, perceived brand globalness, and emotional brand attachment, while acknowledging limitations in existing measurement scales for emotional branding. Yang, Kim, and Zimmerman (2020) proposed a PAD model incorporating pleasure, arousal, and dominance dimensions to measure behavior towards brands within the context of emotional branding. This article attempted to address the research gap through constructing a validated measurement scale exclusively for emotional branding. To

develop measurenet scale articles explore self-congruence, brand love, self-identity, brand trust, brand experience and brand satisfaction based on following literature in the field of emotional branding.

Several scholars have underscored the significance of self-congruence in elucidating the nexus between consumer behavior and branding. Kim and Morris (2007) have emphasized the importance of understanding the interplay between cultural dimensions, self-congruence, and emotional branding for marketers to tailor their advertising strategies effectively and resonate with diverse consumer segments. According to Hosany and Martin (2012), self-congruence denotes the alignment between a consumer's self-concept and the perceived image of a product, brand, or service. Akgün, Koçoğlu, and İmamoğlu (2013) further argue that self-congruence plays a pivotal role in elucidating the mechanisms underlying emotional branding, suggesting that brands capable of evoking emotions congruent with consumers' self-concepts are more likely to foster profound emotional connections with their target audience. Roy, Echambadi, and Mishra (2016) and Kim, Lee, and Hyun (2017) both assert the significant role of self-congruence in fostering emotional connections in brand management, highlighting its implications for brand management strategies. Japutra, Ekinci, and Simkin (2019) highlighted the influence of self-congruence on brand attachment and impulsive buying behavior, emphasizing the role of emotional connections in fulfilling consumer self-image. Additionally, Park et al. (2010) suggests that recognizing the role of self-congruence can enhance comprehension of consumer-brand relationships and enable the formulation of more efficacious brand management strategies. In the context of Bagozzi et al.'s (1999) research, it is posited that self-congruence may influence the emotional responses elicited by marketing stimuli, further emphasizing its relevance in understanding consumer behavior and branding dynamics. Guevremont, A. (2021) examines the mediating role of self-identification in the relationship between emotional brand attachment and consumer eating habits and found that Self-identification may strengthen the influence of emotional brand attachment on dietary choices.

Choi and Hwang (2021) delve into the ramifications of brand love for companies' emotional branding strategies across various sectors. They suggest that through emotional branding, companies can foster brand love, thereby enhancing engagement, loyalty, and advocacy among their target audience. In a similar vein, Gürhan-Canli and Batra (2020) investigate the interplay between emotional branding and brand love, emphasizing the role of emotional branding strategies in cultivating and nurturing brand love among consumers. According to Keller and Brexendorf (2020), brand love represents a pinnacle in consumer-brand relationships within the realm of emotional branding. It signifies a profound and enduring emotional attachment characterized by affection, loyalty, and advocacy toward a brand. Nguyen and Mai (2021) conduct a systematic review of the literature, synthesizing empirical evidence and theoretical frameworks regarding the relationship between emotional branding and brand love. Their review critically analyzes existing studies to elucidate the mechanisms, antecedents, and outcomes of brand love within the context of emotional branding strategies. Furthermore, Suh and Lee (2022) contribute to advancing scholarly understanding by highlighting the significance of emotional connections in building robust brand-consumer relationships within the framework of emotional branding. Kim, Hyun, and Lee (2022) underscore the perception of brands as trusted entities and stress the importance of cultivating positive emotional connections with them among consumers. Kustini (2011) delves into the relationship between brand trust and emotional branding, revealing that fostering emotional connections and brand trust can contribute to a favorable association with the brand. In the study by Jiang, Sun, and Tu (2023), the sequential mediating roles of brand identity and brand trust in the relationship between emotional marketing and consumer loyalty are highlighted. Erciş et al. (2012) explore the influence of emotional branding and brand trust on key constructs, demonstrating the significant impact of these factors on brand commitment, loyalty, and repurchase intentions.

Lin (2015) emphasizes the critical role of brand satisfaction as a key metric in assessing consumer perceptions and attitudes towards a brand, highlighting its association with emotional branding. Cuong (2020) similarly highlights the importance of emotional branding in fostering brand satisfaction, indicating a strong relationship between the two. Zboja and Voorhees (2006) stress the significance of emotional branding in shaping consumer perceptions and behaviors towards retailers. They suggest that retailers can enhance trust, satisfaction, and loyalty among customers by strategically employing emotional branding techniques, thereby fostering long-term relationships. Wardani and Gustia's (2017) research delves into the relationships between brand experience, satisfaction, trust, and attachment, exploring how customer interactions with a brand influence their overall perception and emotional connection. Cuong's (2020) study investigates the role of brand trust as a mediator in the relationship between brand satisfaction and purchase intention, examining how satisfaction influences a customer's willingness to purchase a brand's product and how brand trust reinforces this connection. Mabkhot, Salleh, and Shaari's (2016) research explores the influence of brand personality on brand loyalty in Malaysia, highlighting how brand satisfaction acts as a mediator in this relationship. Chinomona, R. (2013), suggests that positive brand experiences lead to increased satisfaction, trust, and attachment towards the brand. Lin, Y. H. (2015) suggests that innovative brand experiences have a significant impact on both brand equity and brand satisfaction.

3. Methodology

This study deployed convenience sampling techniques to obtain the responses from the target population and got 101 responses on emotional brand attachment for cosmetics. Small convenience sample can be used for pilot testing and scale development (Polit and Beck (2017), Fowler (2014), DeLone and McLean (2003). Data were collected using a structured questionnaire, which includes six different dimensions which are predominantly used to measure emotional brand and its attachment, i.e., self- congruence - 5 items (Sirgy, M. J., Grewal, D., & Mangleburg, T. F. (1997) & Havlena, J., & Ritchie, M. (1994), brand loyalty - 5 items (Thomson, Macinnis, and Whan Park (2005), self-identity - 5 items (Aaker, J. L., Kumar, V., & Leone, G. (2001), brand trust - 5 items (Chaudhuri, A., & Holbrook, M. B. (2001), brand experience - 5 items (Gentile et. al., (2007) and brand satisfaction - 5 items (Bagozzi et. al., (1999). Each item has been measured using likert scale (5 to 1 point scale). To validate the measurement scale of emotional brand attachment, the primary data were analyzed through the sampling adequacy test (KMO & Bartlett Test), Item Score Analysis (Average Method), Exploratory Factor Analysis (Principal Component Analysis), Confirmatory Factor Analysis (Maximum Likelihood Method) along with Discriminant Validity Test using Path Analysis and Reliability Test.

Objectives of the Study:

- To examine existing scales for Emotional Branding and Emotional Brand Attachment and assess their adequacy in capturing the multidimensional nature of consumer-brand relationships.
- To propose a valid and structured, Emotional Brand Attachment Measurement Scale (EBAMS) from existing literature and empirical data.

4. Analysis, Results and Discussion

Table No: 1 Profile of the respondents:

Profile		Percentage
Gender	Male	32
	Female	68
Age Group (In Years)	Less than 20 Years	1
	20 Years - 30 Years	77
	30 Years - 40 Years	13
	40 Years - 50 Years	8
	Above 50 Years	1
Marital Status	Single	76
	Married	24
Location	Urban	68
	Semi Urban	16
	Rural	16
Income Level	Less than ₹ 1 Lakh	41
	₹1 Lakh - ₹ 2.5 Lakhs	19
	₹ 2.5 Lakhs - ₹ 5 Lakhs	18
	₹ 5 Lakhs - ₹ 7.5 Lakhs	10
	Above ₹ 7.5 Lakhs	12

Interpretation: Gender of the respondents skews heavily towards females, with 68% compared to 32% males. The majority of the population's age falls within the 20-30 age group (77%). Less than 20 and above 50 age groups are relatively small (1% and 1% respectively). Most people reside in urban areas (68%), followed by semi-urban (16%) and rural areas (16%). The majority is single (76%), with a smaller married population (24%). A significant portion (41%) earns less than ₹1 Lakh annually. The income distribution suggests a potential lean towards the lower-middle-income bracket. This study predominantly relies on female, young adults (20-30 years old), residing in urban areas, and potentially single and A considerable portion of the population falls within a lower-middle-income range

Table No: 2 Combined Matrix - Item Score Analysis and Exploratory Factor Analysis - Principal Component Analysis

Emotional Brand Attachment (Scale Items)		Item Respondent		Scale Summary - Factor		
		Score Analysis	N = 93	Loadings		
				Overall EFA1	EFA 2	EFA 3
		N = 101		30 items	22 items	20 Items
Self Congruence_SC						
SC1	The personality of the brand is consistent with how I see myself	3.88	3.59	0.678	0.568	-
SC2	The personality of the brand is a mirror image of me	3.66	3.45	0.53	-	-
SC3	The personality of the brand is close to my own personality	3.59	3.18	0.723	0.76	0.762
SC4	I feel a strong sense of identification with this brand	3.70	3.50	0.607	0.622	0.653
SC5	This brand is an extension of my inner self	3.60	3.18	0.548	-	-
Brand Love_BL						
BL1	This is a wonderful brand	3.80	3.59	0.643	0.639	0.625
BL2	This brand makes me feel good	3.75	3.64	0.808	0.86	0.873
BL3	This brand makes me feel happy	3.83	3.64	0.611	0.634	0.628
BL4	This brand gives me delight	3.74	3.59	0.622	0.552	-
BL5	I am passionate about this brand	3.69	3.27	0.664	0.697	0.717
Self Identity_SI						
SI1	I can identify myself with the brand	3.58	3.36	0.662	0.739	0.817
SI2	This brand contributes to my image	3.66	3.55	0.533	-	-
SI3	This brand has a positive impact on what others think of me	3.70	3.45	0.665	0.649	0.734
SI4	This brand makes me feel unique	3.69	3.55	0.596	0.599	0.625
SI5	This brand makes me feel like I am part of something	3.63	3.32	0.672	0.748	0.803
Brand Trust_BT						
BT1	This brand has high integrity	3.63	3.50	0.603	0.589	0.559
BT2	This brand keeps its promises	3.73	3.55	0.249	-	-
BT3	This brand is reliable and dependable	3.68	3.55	0.502	-	-
BT4	This brand is trustworthy	3.80	3.59	0.735	0.749	0.745
BT5	This is an honest brand	3.80	3.64	0.679	0.679	0.663
Brand Experience_BE						
BE1	This brand makes a strong impression on my visual sense	3.77	3.45	0.66	0.594	0.509
BE2	This brand induces my feelings and sentiments	3.63	3.55	0.571	-	-
BE3	This brand has special meaning for me	3.56	3.36	0.701	0.681	0.66
BE4	This brand stimulates my curiosity and problem solving	3.61	3.27	0.634	0.677	0.643
BE5	My brand has the best user experience	3.75	3.55	0.55	-	-
Brand Satisfaction_BS						
BS1	I am pleased with this brand	3.77	3.68	0.703	0.73	0.734
BS2	I am very satisfied with the services provided by this brand	3.69	3.45	0.771	0.743	0.746
BS3	Using this brand is usually a very satisfying experience	3.78	3.68	0.598	0.624	0.629
BS4	This brand does a good job of satisfying my needs	3.76	3.64	0.771	0.792	0.805
BS5	This brand exceeds my expectations	3.72	3.55	0.542	-	-

* less than 0.60 factor loadings were removed in each stage of Exploratory Factor Analysis

Interpretation: Item and respondents score analysis has been utilized to validate and check the reliability of the responses, 93 out of 101 respondents responses were considered for further analysis. Reliability analysis of 30 items 0.969 which is close to 1. Based on this, the study deployed exploratory factor analysis with a sample size of 93 for 30 items to measure emotional brand attachment, which measures self-congruence, brand love, self-identity, brand trust, brand experience and brand satisfaction.

EFA1_30 Items: KMO is 0.901 is highly adequate and Bartlett's Test of Sphericity is significant (Chi-Square = 2472.819, df = 435, $p < 0.001$) suggesting that data is suitable for conducting the factor analysis. Extraction communalities range from 0.535 to 0.791, indicating the proportion of variance in each variable explained by the extracted factors. The total variance explained by the extracted factors is 71.773%. The first factor accounts for the highest percentage of variance (53.337%), followed by the second (6.895%), third (4.622%), and subsequent factors. Based on the results and factor loadings, 8 items were excluded (< 0.60) from further analysis and EFA2_22 tested with 22 items. EFA2_22 Items: KMO is 0.906 is highly adequate and Bartlett's Test of Sphericity is significant (1754.790, df = 231, $p < 0.001$) suggesting that data is suitable for conducting the factor analysis.

Extraction communalities range from 0.534 to 0.792, indicating the proportion of variance in each variable accounted for by the extracted factors. The total variance explained by the extracted factors is 79.910%. The first factor accounts for the highest percentage of variance (55.909%), followed by the second (8.076%) and third (5.564%) factors. Based on the results and factor loadings, 2 items were excluded (< 0.60) from further analysis and EFA3_20 tested with 20 items. EFA3_20 Items: KMO is 0.880 is highly adequate and Bartlett's Test of Sphericity is significant (Chi-Square = 1433.000, df = 190, $p < 0.001$) suggesting that data is suitable for conducting the factor analysis. Extraction communalities range from 0.548 to 0.790, indicating the proportion of variance in each variable accounted for by the extracted factors. The total variance explained by the extracted factors is 79.581%. The first factor accounts for the highest percentage of variance (51.876%), followed by the second (9.507%) and third (6.090%) factors. Based on the results and factor loadings, 8 items were excluded (< 0.60) from further analysis and the CFA_6_factor model was tested with 18 items.

Rotated Component Matrix:

Table No: 3 Rotated Component Matrix of EFA 3

Emotional Brand Attachment (Scale Items)	1	2	3
SC3			0.777
SC4		0.629	
BL1	0.606		
BL2			0.848
BL3	0.634		
BL4			0.73
SI1		0.841	
SI3		0.756	
SI4			0.622
SI5		0.826	
BT4	0.733		
BT5	0.664		
BE3		0.636	
BE4		0.604	
BS1	0.752		
BS2	0.758		
BS3	0.649		
BS4	0.819		

Extraction Method: Principal Component Analysis; Rotation Method: Varimax with Kaiser Normalization. a Rotation converged in 9 iterations.

Interpretation: Factor 1: Emotional Connection and Brand Satisfaction: Variables such as "I feel a strong sense of identification with this brand" (loading: 0.629), "This brand makes me feel good" (loading: 0.848), "This brand makes me feel happy" (loading: 0.634), and "I am passionate about this brand" (loading: 0.730) load highly on this factor. This factor suggests that consumers feel emotionally connected to the brand and derive satisfaction and happiness from their interactions with it. Factor 2: Brand Trust and Honesty: Variables such as "This brand is trustworthy" (loading: 0.733) and "This is an honest brand" (loading: 0.664) load highly on this factor. This factor reflects consumers' perceptions of the brand's trustworthiness and honesty, indicating that they believe the brand to be reliable and transparent in its dealings. Factor 3: Brand Experience and Fulfillment of Needs: Variables such as "I am pleased with this brand" (loading: 0.752), "I am very satisfied with the services provided by this brand" (loading: 0.758), "Using this brand is usually a very satisfying experience" (loading: 0.649), and "This brand does a good job of satisfying my needs" (loading: 0.819) load highly on this factor. This factor suggests that consumers perceive the brand as effectively meeting their needs

and providing satisfactory experiences. Overall, the results indicate that emotional branding involves multiple dimensions, including emotional connection, brand trust, and satisfaction. Understanding these dimensions can help marketers develop strategies to enhance consumers' emotional engagement with the brand and cultivate long-term loyalty and advocacy.

Confirmatory Factor Analysis:

Table No: 4 CFA_6_Factor - Regression Estimates and Path Model

EBAMS_CFA1_Article.amw						
			Estimate	S.E.	C.R.	P
SC4	<--	SCa	1			
SC3	<--	SCa	1.121	0.172	6.515	***
BL5	<--	BLa	1			
BL3	<--	BLa	0.957	0.123	7.806	***
BL2	<--	BLa	0.548	0.12	4.553	***
BL1	<--	BLa	0.769	0.119	6.441	***
SI5	<--	SIa	1			
SI4	<--	SIa	0.754	0.097	7.753	***
SI3	<--	SIa	0.88	0.087	10.061	***
SI1	<--	SIa	0.947	0.083	11.384	***
BT5	<--	BTa	1			
BT4	<--	BTa	0.981	0.123	7.999	***
BE4	<--	BEa	1			
BE3	<--	BEa	1.108	0.127	8.747	***
BS1	<--	BSa	1			
BS4	<--	BSa	0.882	0.085	10.342	***
BS3	<--	BSa	0.857	0.09	9.525	***
BS2	<--	BSa	0.835	0.096	8.654	***

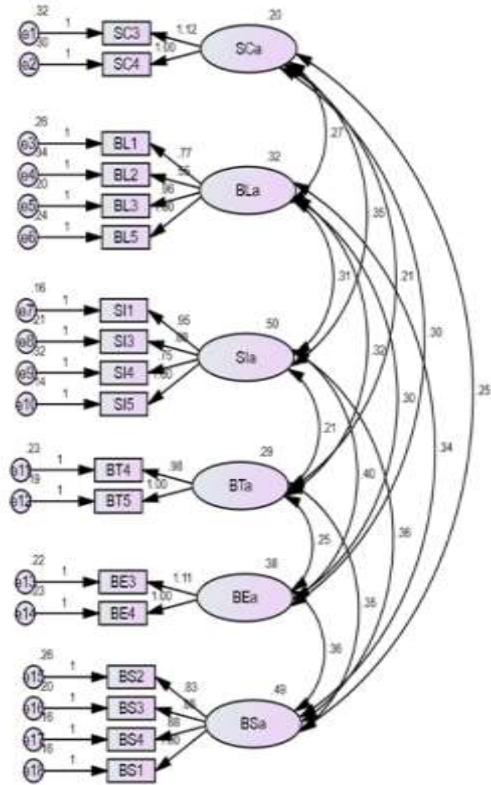


Figure No: 1 Path Diagram CFA_6_Factor Model

Table No: 5 CFA_3_Factor - Regression Estimates and Path Model

EBAMS_CFA2_Article.amw						
			Estimate	S.E.	C.R.	P
SI5	<---	SC_SI	1		7.515	***
SI4	<---	SC_SI	0.757	0.103	7.365	***
SI3	<---	SC_SI	0.908	0.093	9.793	***
SI1	<---	SC_SI	0.958	0.091	10.568	***
SC4	<---	SC_SI	0.785	0.087	9.069	***
BT5	<---	BL_BT	1			
BT4	<---	BL_BT	0.975	0.129	7.554	***
BL5	<---	BL_BT	0.998	0.136	7.353	***
BL3	<---	BL_BT	1.041	0.124	8.374	***
BS4	<---	BE_BS	1			
BS3	<---	BE_BS	1.033	0.123	8.396	***
BS2	<---	BE_BS	0.979	0.13	7.521	***
BS1	<---	BE_BS	1.17	0.131	8.942	***
BE4	<---	BE_BS	0.995	0.13	7.622	***
BE3	<---	BE_BS	1.118	0.136	8.243	***

The figure displays three separate path diagrams, each representing a second-order confirmatory factor analysis (CFA) model. Each diagram shows a latent variable (oval) at the top with four observed variables (rectangles) below it. Standardized factor loadings are indicated by arrows, and error variances are shown in circles next to each observed variable.

- Top Diagram (SC_SI):** The latent variable is SC_SI (variance 48). It has four indicators: SC4 (loading 0.78, error 20), SI1 (loading 0.91, error 17), SI3 (loading 0.76, error 20), and SI5 (loading 0.90, error 13). Error variances are 20, 17, 20, and 13 respectively.
- Middle Diagram (BL_BT):** The latent variable is BL_BT (variance 30). It has four indicators: BL3 (loading 1.04, error 17), BL5 (loading 0.97, error 26), BT4 (loading 0.90, error 23), and BT5 (loading 1.00, error 18). Error variances are 17, 26, 23, and 18 respectively.
- Bottom Diagram (BE_BS):** The latent variable is BE_BS (variance 33). It has four indicators: BE3 (loading 1.12, error 26), BE4 (loading 0.98, error 28), BS1 (loading 1.03, error 29), and BS3 (loading 1.00, error 21). Error variances are 26, 28, 29, and 21 respectively.

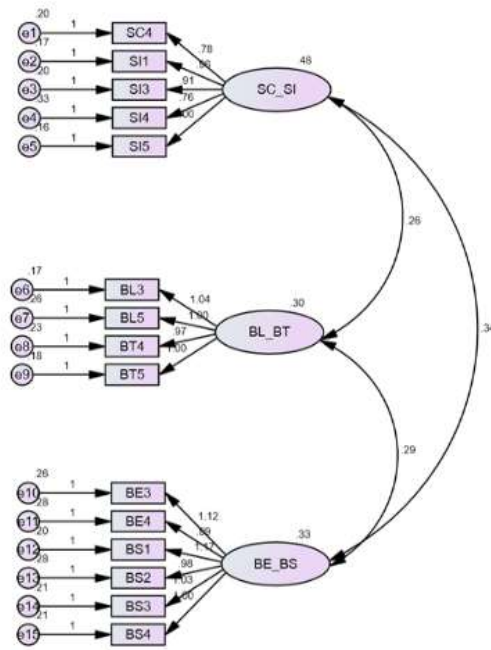


Figure No: 2 Path Diagram CFA_3_Factor Model

The study employed CFA to evaluate the validity of a newly developed scale. AMOS 21.0 software was used with the Maximum Likelihood Estimation (MLE) procedure to analyze the data. (Anderson and Gerbing 1988). Generally, a composite Reliability (C.R.) of 0.7 or above is considered acceptable, indicating good reliability (Huang, D. H., Huang, C. F., & Lin, Y. K. (2020). Based on that, SC3, BL2, BL1 statements were excluded in the final CFA, since the values are less than acceptable level; subsequently CFA has been conducted with 15 items with the following methodology (refer table no:4)

Fit Indices

Interpretation: Results suggest that the null model shows some degree of fit to data ($\chi^2 = 501.218$, $df=194$, normed $\chi^2 / df=2.584 < 5$, RMSEA=0.131 > 0.05 , RMR =.049 < 0.05 , AGFI = 0.522 < 0.800 and CFI=0.819 < 0.9), which assumes few relationships among variables, does not fit the data well. This indicates that there are likely significant relationships among the variables in the dataset, and further analysis with alternative models is warranted. The results suggest that while the Six Factor Model shows some degree of fit to the data ($\chi^2 = 302.475$, $df=120$, normed $\chi^2 / df=2.521 < 5$, RMSEA=0.129 > 0.05 , RMR =.044 < 0.05 , AGFI = 0.75 < 0.800 and CFI=0.879 < 0.9) (as indicated by RMSEA, RMR, AGFI, and CFI), the chi-square test suggests significant discrepancies between the model and the observed data. This indicates potential model misspecification or inadequacy in capturing the underlying structure of the data. Further refinement or exploration of alternative models may be necessary to improve model fit.

Table No:6 Model Comparisons - Fit Indices

Model	CMIN x2	df	p	Normed X2	RMSEA	RMR	AGFI	CFI
Criteria			< 0.05	< 5	<0.05	< 0.05	> 0.800	> 0.900
Null Model	501.218	194	0.000	2.584	0.131	0.049	0.522	0.819
Six Factor Model	302.475	120	0.000	2.521	0.129	0.044	0.75	0.879
3 factor Model	247.235	87	0.000	2.421	0.041	0.032	0.811	0.913

Overall, while the chi-square test suggests that the Three Factor Model fit the data well due to the significant p-value ($\chi^2 = 247.235$, $df=87$, normed $\chi^2 / df=2.421 < 5$), other fit indices such as RMSEA=0.041 > 0.05 , RMR =0.032 < 0.05 , AGFI = 0.811 > 0.800 and CFI=0.913 > 0.9 RMSEA, RMR, AGFI, and CFI indicate acceptable to good model fit. However, it's essential to interpret these results cautiously and consider the theoretical implications of the model in conjunction with the fit indices. Hence, this study is proposing the following statement or items to measure emotional brand attachment.

Table No 7: Factor Loading Table - EBAMS

Rotated Component Matrix	Components		
	1	2	3
SC4	0.654	0.439	0.226
BL3	0.236	0.535	0.605
BL5	0.387	0.2	0.798
SI1	0.869	0.154	0.206
SI3	0.806	0.222	0.168
SI4	0.667	0.266	0.434
SI5	0.848	0.228	0.215
BT4	0.135	0.38	0.705
BT5	0.025	0.58	0.667
BE3	0.482	0.618	0.25
BE4	0.226	0.621	0.52
BS1	0.214	0.758	0.26
BS2	0.48	0.624	0.247
BS3	0.331	0.843	0.086
BS4	0.373	0.722	0.298
Extraction Method: Principal Component Analysis.			

Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 7 iterations.

Interpretation: This table shows the results of a Principal Component Analysis (PCA) with Varimax rotation used to analyze consumer sentiments towards a brand. Component 1 (Self-Identity): This component captures how strongly consumers identify with the brand. Statements with high loadings here (SI1, SI3, SI4, SI5, SC4) suggest that consumers feel a sense of belonging and connection to the brand (e.g., "I can identify myself with the brand," "This brand makes me feel unique"). Component 2 (Brand Experience and Satisfaction): This component reflects how much consumers experience and are satisfied with the brand. Statements with high loadings here (BE3, BE4, BS1, BS2, BS3, BS4) indicate that consumers perceive the brand as honest, and fulfilling their needs (e.g., "Using this brand is usually a very satisfying experience"). Component 3 (Emotional Connection): This component represents the emotional bond consumers feel with the brand. Statements with high loadings here (BL3, BL5, BT4, BT5) suggest that the brand evokes positive emotions like happiness and has a special meaning for consumers (e.g., "This brand is trustworthy," "This brand makes me feel happy,"). The component wise statements have been listed in the table no:8

Component Wise Statement / Items

Table No 8: Component Wise Statement / Items:

Component	Code	Statements / Items
Component 1 Self-Identity (SC+SI)	SC4	I feel a strong sense of identification with this brand
	SI1	I can identify myself with the brand
	SI3	This brand has a positive impact on what others think of me
	SI4	This brand makes me feel unique
	SI5	This brand makes me feel like I am part of something
Component 2 Brand Experience and Satisfaction (BE+BS)	BE3	This brand has special meaning for me
	BE4	This brand stimulates my curiosity and problem solving
	BS1	I am very satisfied with the services provided by this brand
	BS2	Using this brand is usually a very satisfying experience
	BS3	This brand does a good job of satisfying my needs
Component 3 Emotional Connection (BL+BT)	BS4	I am pleased with this brand
	BL3	This brand makes me feel happy
	BL5	I am passionate about this brand
	BT4	This brand is trustworthy
	BT5	This is an honest brand

Reliability of EBAMS

Table No: 9 Combined Matrix of Reliability Test

Dimension	Items	Alpha	Mean	Var	SD
Emotional Brand Attachment (All 3 Components)	15	0.947	55.43	75.55	8.69
Self-Identity (SC+SI)	5	0.895	18.22	10.45	3.24
Brand Experience _ Satisfaction (BE+BS)	6	0.900	22.14	14.75	3.84
Emotional Connection (BL+BT)	4	0.853	15.08	5.76	2.40

Interpretation: The results indicate excellent reliability for Brand Experience _ Satisfaction ($\alpha = 0.900$) for 6 items, signifying that the items within these dimensions effectively capture the underlying constructs (Nunnally, 1978). Self-identity ($\alpha = 0.895$) for 5 items and Emotional Connection ($\alpha = 0.853$) for 4 items demonstrate good internal consistency, suggesting the items moderately well measure the respective concepts. The Overall emotional brand attachment measurement scale which includes self-identity, brand experience _satisfaction and emotional connection (15 items) having $\alpha = 0.947 > 0.900$ represents that scale developed in excellent and highly reliable to use in further research.

4. Discussions and Conclusion:

This study primarily analyzed the existing Emotional Branding and Emotional Brand Attachment Measurement Scales and proposed a valid and structured measurement scale for emotional brand attachment, i.e. emotional brand attachment measurement scale (EBAMS) through the existing contributions in the field along with the primary data. To validate the measurement scale, this article has examined the six different dimensions which are predominantly used to measure emotional brand attachment, i.e., self- congruence, brand loyalty, self identity, brand trust, brand experience and brand satisfaction adopted from Sirgy, M. J., Grewal, D., & Mangleburg, T. F. (1997), Havlena, J., & Ritchie, M. (1994), Thomson, Macinnis, and Whan Park (2005), Aaker, J. L., Kumar, V., & Leone, G. (2001), Chaudhuri, A., & Holbrook, M. B. (2001), Gentile et. al., (2007) and Bagozzi et. al., (1999) leads to 30 statements.

Procedure of validation of EBAMS has started with respondent score analysis and item score analysis to understand the pattern of responses items wise, and results revealed the 93 respondents out 101 were included for the further analysis. Further, this study deployed exploratory factor analysis to uncover the underlying structure and to develop the reliable and valid measurement scale for emotional brand attachment. First exploratory factor analysis included all the statements obtained from various sources and extracted 22 statements based on rotated component matrix (varimax) with the criteria of > 0.60 with the total variance explained by factors is 71.773% with four components. Second exploratory factor analysis has been conducted using 22 statements having factor loadings more than 0.60 and extracted 20 items and total variance explained by factors is 79.910 with four components; subsequently those 20 statements were tested again with EFA and results revealed that 18 statements are having highest factor loadings with the total variance explained value is 79.581 for 3 components. Through EFA, the study arrived with 18 statements that could be useful to measure emotional brand attachment. Thirdly, 18 statements which were identified through EFA were included for CFA to confirm and validate the statements and underlying relationship between and among the items and components.

The Null Model of CFA has conducted and various fit indices indicated that the model does not fit the data well. Six factor model of CFA has been deployed with 18 items from EFA and results revealed that some degree of fitness is there with data and revealed some underlying relationships among the six factors, however 3 statements were excluded from further analysis due to the acceptable level of C.R. Values in the analysis. Then 15 statements were taken to a three-factor model of CFA and the model fit indices and regression estimates are having an excellent fit with the data. There three dimensions or factors were framed namely Self-Identity (5 items), Brand Experience _ Satisfaction (6 items) and Emotional Connection (4 items). The factor loadings table shows clearly about which statements are largely associated with the dimensions of emotional brand attachment scale and the same has been shown in the factor loading table. At last, this article deployed reliability analysis to validate the results of the CFA for 3 factor model, and results shown that, the constructed measurement scale is highly reliable and can be used for empirical studies and future researcher can make use of this Emotional Brand Attachment Measurement Scale (EBAMS) which has 15 statements.

In conclusion, this study presented a valuable contribution by proposing a reliable and practical tool for measuring emotional brand attachment and validated the Emotional Brand Attachment Measurement Scale (EBAMS). The EBAMS offers researchers a robust framework to explore the emotional dimensions of consumer-brand relationships and advance the understanding of this crucial aspect of marketing.

Limitations, Future directions and Managerial Implications:

The study focused on a specific sample size and may require further validation on a larger and more diverse population and the study is limited to cosmetics users, hence the result may not be applicable to other product consumers. The research primarily relied on self-reported data, and incorporating other measures could provide a more comprehensive understanding of emotional brand attachment. Future researchers can explore the generalizability of the EBAMS across different product categories and cultural contexts. The EBAMS can be applied to investigate the effectiveness of various marketing strategies in fostering emotional connections with consumers and future research can utilize the EBAMS to investigate the influence of emotional brand attachment on various consumer behaviors and brand outcomes. The managerial Implications of the study are, it provides researchers with a reliable and validated tool (EBAMS) to measure emotional brand attachment effectively; and identified three factors (Self-Identity, Brand Experience & Satisfaction, and Emotional Connection) offer valuable insights into the core aspects of consumer-brand relationships.

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APPENDIX**DEFINITIONS, ACRONYMS, ABBREVIATIONS**

SC - Self Congruence

SC1 - The personality of the brand is consistent with how I see myself

SC2 - The personality of the brand is a mirror image of me

SC3 - The personality of the brand is close to my own personality

SC4 - I feel a strong sense of identification with this brand

SC5 - This brand is an extension of my inner self

BL - Brand Love

BL1 - This is a wonderful brand

BL2 - This brand makes me feel good

BL3 - This brand makes me feel happy

BL4 - This brand gives me delight

BL5 - I am passionate about this brand

SI - Self Identity

SI1 - I can identify myself with the brand

SI2 - This brand contributes to my image

SI3 - This brand has a positive impact on what others think of me

SI4 - This brand makes me feel unique

SI5 - This brand makes me feel like I am part of something

BT - Brand Trust

BT1 - This brand has high integrity

BT2 - This brand keeps its promises

BT3 - This brand is reliable and dependable

BT4 - This brand is trustworthy

BT5 - This is an honest brand

BE - Brand Experience

BE1 - This brand makes a strong impression on my visual sense

BE2 - This brand induces my feelings and sentiments

BE3 - This brand has special meaning for me

BE4 - This brand stimulates my curiosity and problem solving

BE5 - My brand has the best user experience

BS - Brand Satisfaction

BS1 - I am pleased with this brand

BS2 - I am very satisfied with the services provided by this brand

BS3 - Using this brand is usually a very satisfying experience

BS4 - This brand does a good job of satisfying my needs

BS5 - This brand exceeds my expectations