

Like it or not! Brand communication on social networking sites triggers consumer-based brand equity

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Abstract

This study examines how brand communication influences consumer-based brand equity (BEQ) through social networking sites in the presence of brand attachment (BAT) as a mediator. The outcomes related to consumer-BEQ, such as consumers' pay intention and loyalty to a brand and a brand's vocal ability, are also explored in this study. An empirical investigation for 498 responses was carried using Smart-PLS, Process-macro & artificial neural network modeling based hybrid approach. The analysis indicates that brand consumer-BEQ is high when a brand's communication on social media platforms is positive. A strong mediating role of BAT is confirmed. The study is unique in terms of explaining the role of brand communication on social networking sites and its impact on consumer-BEQ in the presence of BAT as a mediator. While focusing on Millennials' tech-savvy characteristics and considering SNSs as an advanced tool for brand communication, brands should refine their marketing strategy.

KEYWORDS

artificial neural network, brand attachment, brand communication, brand created content, consumer-based brand equity, social networking sites, user generated content

1 | INTRODUCTION

According to some studies, 3.4 billion users actively use social media platforms daily, with 2.5 h spent per day on social networking sites. These platforms have become an effective mode of communication for brands to establish communication (Hosen et al., 2021; Nisar & Whitehead, 2016). Social media communication plays an essential role in supporting brands to build consumer-based substantial brand equity (Gilal et al., 2021; Kim & Ko, 2012). Aaker (1991) defines brand consumer-based brand equity (BEQ) as the combination of brand assets and liabilities, brand name and symbol. And, consumer-BEQ reflects in consumers' purchase intentions (PI), perspectives, and preferences over other brands, attachment toward one brand, and awareness of admired brands (Kumar & Paul, 2018; Yoo & Donthu, 2001).

Social networking sites (SNSs) promise innovative strategies to do business with consumers (de Almeida et al., 2018; Yannopoulou et al., 2019). Brand communication on these online platforms actively engages with consumers. Brand communication on SNSs is

considered a higher-order construct, a formative construct predicted by two sub-constructs, namely, the brand created social media communication and consumer-generated social media communication. Further, on SNSs, brand communication platforms, emotionally-associated consumers work together to build consumer-BEQ. Consumer-BEQ has been studied in the context of consumers' perceptions and values, which are often shaped according to their beliefs (Liu et al., 2020). SNS users receive the latest information about the brand, which is considered trustworthy and authentic (Arya, Sethi, et al., 2018; Lee et al., 2018; Taşçioğlu, 2019). Sprout Social undertook a study (2018) also discovered that 91% of consumers are more likely to rely on a brand that has a social media presence, which helps them connect with the brand. This increase in online social communication channels has been identified as a significant factor influencing consumer behavior (Liu et al., 2020). Consumers' attachment to a brand through online communication has been explored in academic literature, as has the relationship between brand and consumers within marketing. In the existing literature, however, no studies analyze the relationship between SNS-based online

communication and consumer-BEQ with the consumers' brand attachment (BAT) as a mediator. Accordingly, our study fills this gap in the extant literature. Prior studies (Japutra et al., 2018; Moreira et al., 2017) do not highlight the exact relationship of consumers' social media communication with the consumer-BEQ in the presence of BAT.

There is a variation in the derived dimensions of consumers' online engagement with the brand (Choudrie et al., 2020; Hao et al., 2021; Puligadda et al., 2021). Marketing communications are progressively associated with social media, which develop and sustain consumer-BEQ (Algharabat et al., 2020). In that view, there is a dire need for more extensive and rigorous empirical research to be undertaken to establish the value of brand communication built through SNSs and its direct influence on brand equity and consumers' BAT behavior. In this study, we discuss the different dimensions of the conceptual model of social media communication built on virtual platforms that help build the consumers' relationship with the brand. We also advance a revised and improved conceptual model based on previous studies undertaken by Foroudi et al. (2018). These studies theorize consumer-BEQ concerning brand communication on SNSs, and call for the development of the following three research objectives:

1. Analysis of brand communication built on SNSs and its effect on consumer-BEQ.
2. Explanation of the nature and facets of consumer participation with brands on SNSs, and investigate the interrelationship between consumer-BEQ and BAT.
3. Examination of consumer-BEQ and its consequences can establish the importance of the respective antecedents.
4. To measure the rank and relative importance of the variables brand communication on social networking sites (BCSNS), BAT, consumer-BEQ (BEQ) to predict brand vocal (BV) and PI using artificial neural network (ANN) modeling.

To address the gap that exists within current critical literature, we investigate consumers' behavior toward consumer-BEQ from different angles. We also examine the relationship between consumer-BEQ and consumers' engagement with brands on SNSs. After that, the study assesses whether the relationship between the brands' communication on SNSs and consumer-BEQ is significantly mediated by consumers' BAT. We also discuss the different dimensions of the conceptual model of BCSNS that help build the consumers' relationship with the brand. Concluding the analysis, this study explores the previously unconsidered consequences of these factors for consumer-BEQ: consumers' brand PI and their BV.

A two-stage hybrid analytical method was adopted. In the first stage, PLS-SEM was adopted to establish the structural equations proposed in the conceptual model. In contrast, in the second stage, ANN modeling was used to examine the rank of the antecedents. To examine the brand equity, variance explained by both the variables BCSNS & BAT are essential. In contrast, to check which independent variable is explaining more variance for BV and PI, we have to go for the importance of variable test using ANN modeling. To examine

these consequences most effectively, we also measure the rank and relative importance of the variables (BCSNS, BAT, BEQ) using ANN modeling. The study also examines a theoretical model of how communication on SNSs enhances consumer-brand relationships and increases consumer-BEQ. We have used the Uses and Gratifications Theory (UGT) which has been applied by previous researchers to explore the consumers' engagement on SNSs and their value consciousness (Kujur & Singh, 2017, 2020; Tang et al., 2019), as a base to proposed the conceptual model. The UGT discusses the Social Media Marketing (SMM) activities for consumers' cognitive, social and personal benefits, hedonic gratifications (Dholakia et al., 2009), and improved users' experiences (Kapoor & Banerjee, 2020).

2 | THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

2.1 | Brand communication on SNSs and consumer-BEQ

Consumer-BEQ is a broad term. It refers to a brand's marketing activities or resources, such as the brand name, and their relation to consumers' perceptions of quality regarding the brand image (Yoo & Donthu, 2001). Consumer-BEQ has other consequences for consumers regarding their BV behavior, buying intents, paying capacity, and brand loyalty (Foroudi et al., 2018). Aaker (1996) included numerous facets within his outline of the consumer-BEQ model, such as symbolic values, relationship to quality and service, consumer loyalty, and awareness. Studies in the past explain consumer-BEQ as brand identification using different dimensions such as brand awareness and brand image, value given by the consumers to the brand's product (Datta et al., 2017; Kumar et al., 2020). Brand marketers have seen this consumer-BEQ in different ways to explain the consumers' knowledge to decide on various brands (Keller & Brexendorf, 2019). Researchers have explained social brand equity as a combination of desired behavior and examination of that behavior (Naidoo & Abratt, 2018). Also, consumer-BEQ is defined in the context of financial perspective too, which associates with the brand's financial value (Schultz, 2016).

These days, SNSs have become a powerful platform to develop the antecedents of consumer-BEQ for any brand (Algharabat et al., 2020). A person visiting an SNS will participate in various activities hosted on virtual entertainment platforms (Verduyn et al., 2020). Many of these platforms also include virtual social territories for their users. Activities that an individual might participate in on an SNS include online gaming, online shopping, communicating with people around the globe, making new friends, sharing their pictures/videos, liking and sharing posts, and receiving reviews and suggestions about a particular brand/product (Tosun, 2019). These factors indicate that a higher level of interaction between the peer groups on social media can influence consumers' brand preferences (Banerjee, 2016). SNSs provide a platform for consumers to have fast, real-time communication

with other consumers (Seo & Park, 2018). Marketing communication is a medium that helps to increase consumer-BEQ (Keller & Brexendorf, 2019) and develop a consumer's brand quality value, positive association with the brand, consumers' loyalty, and awareness toward the brand, which leads us toward increased consumer-BEQ (Foroudi et al., 2018).

Users' social media engagement would be contributing more to explain consumer-BEQ (Algharabat et al., 2020). The individual engagement may be different on social media platforms (de Vries et al., 2012), as brands' effectiveness on social media platforms may vary from one to another brand. Brands select specific social media platforms based on their unique requirement, and accordingly, they run engagement activities associated with consumer-BEQ on several virtual platforms. (Schweidel & Moe, 2014). Consumers' engagement on SNSs gives a new experience (Brakus et al., 2009; Hamzah et al., 2021), and enhanced communication with the brand always boosts consumer-BEQ business-to-consumers composition (Biedenbach & Marell, 2010). Thus, we posit the following hypothesis:

Hypothesis 1 *Brand' communication with consumers on social networking sites positively impacts consumer-based brand equity.*

2.2 | BAT and brand communication on SNSs

There is also a strong relationship between what people say, their spontaneous actions, and their perception of brand messages in social media (Arya, Verma, et al., 2018; Paul, 2019). Uses and Gratification Theory (UGT) is the theoretical basis for this study because it explains the importance of individual brands' uses and their behavior toward the brand (Katz et al., 1973). Consumers' experience and gratification through SMM activities form their perception of the brand (Gao & Feng, 2016). The experience, which refers to the individual consumer interaction with the brand on social media platforms, can influence their BAT (Brakus et al., 2009). BAT is defined as a relationship of consumer and brand (Japutra et al., 2018), which has positive outcomes such as brand loyalty (Japutra et al., 2018), brand commitment and brand satisfaction (Belaid & Behi, 2011), brand love, and PI (Correia Loureiro & Kaufmann, 2012). Bowlby (1979) explained BAT as "an emotion-laden target-specific bond between a consumer and a specific brand." Park et al. (2006, 2010) expands the concept of BAT and states that the combination of the brand used to form self-image and consumer-brand identification very well defines the cognitive dimension of BAT. The theory given by Khattoon and Rehman (2021) is the base theory for BAT in our study, where he has explained BAT in the sense of consumers' belief that connects them with the brand.

How SNSs are utilized to help brands share information with their consumers worldwide needs to be studied in detail. We consider this a valuable research area that can be adapted to accommodate both the online communication developed by brands and consumers' BAT (Huang et al., 2018). BAT is the emotion-laden

bond between people and a particular brand (Thomson et al., 2005). Earlier research (Hwang et al., 2019) showed a significant association between the brands and self-connections with BAT. People are spending more time online on SNSs instead of watching TV or reading. This increasing presence of consumers on SNSs is developing more favorable conditions for BAT (Huang et al., 2018). This trend appears to continue as millennial access to smartphones, and other forms of wireless internet-enabled devices keep growing. In the current age of digital marketing, consumers who are actively engaged online are more likely to invest more to own a particular branded product (Hwang et al., 2019). Therefore, based on the preceding discussion, we offer our second hypothesis:

Hypothesis 2 *Brands' communication with consumers on social networking sites positively impacts consumers' BAT behavior.*

2.3 | BAT and consumer-BEQ

BAT is a phenomenon that influences consumer-BEQ (Jawahar et al., 2020). Keller (1993) explained that knowledge of the brand develops associations in a consumer's memory. These associations are a combination of brand strength and uniqueness and are reflective of consumer-BEQ. Yoo and Donthu (2001) explained brand equity as a difference observed between focal brands and unbranded products in a scenario when both are marketed at the same level and have identical product attributes. Aaker (1991) defined consumer-BEQ as "brand assets and liabilities linked to a brand, its name and symbol that adds to or subtracts from the value provided by a product or service to a firm and its consumers." Consumer-BEQ also demonstrates the consumers' perspective and extensive attachment to the brand (Paul, 2019; Yoo & Donthu, 2001).

A survey of the recent literature on the subject reveals that there is currently a strong focus on the digitalization of brands (Herrero & Martínez, 2020). The allegedly affirmative repercussions of consumers' engagement with brand communication built on social networking vehicles and consumers' attachment to the brand are the significant consequences of brand performance (Devereux et al., 2020). They are also amongst the motivating factors behind both the academic and practical movements to explain the notion. The associations that consumers establish with the brand are based on the stimuli they have in their memory. This means that consumers' BAT is a storehouse of memories that enhances the prominence of brand associations (Khattoon & Rehman, 2021), which are an essential facet of consumer-BEQ.

On the other hand, the increment in emotional attachment distinguishes a brand at the next level (Keller, 1993), an action that subsequently enhances consumer-BEQ (Schivinski & Dabrowski, 2015). Hence, we make a further hypothesis:

Hypothesis 3-a *Consumers' brand attachment positively impacts consumer-based brand equity.*

In the digital era, consumers are expecting brands to do the communicate online (Kim & Ko, 2012), and they show attachment to that brand which is pro-active to get in touch with them, share helpful information on a real-time basis and willing to build healthy relationships with them (Jhamb et al., 2021). This affects consumers' choice to interact with the brand, which has online communication using various social media platforms. Social media-based brand communication is getting pivotal preference over traditional blogs, websites, etc. (Hollebeek et al., 2014). They are making two-way communication with the consumers by sharing content like photos, text, videos and engaging the consumers using various gamification methods. BCSNS improves consumer-BEQ by providing brand image, identity, and value (Chu et al., 2019). The digitalization of the market supports consumers' desire to associate with brands on social SNSs (Burmam & Arnhold, 2008). In doing so, both consumer-generated and brand-created content have become necessary concerning brand popularity (Jerman & Zavrnsnik, 2015). Moreover, consumers' interest in generating content on SNSs increases when the activity is intrinsically enjoyable, involves a relationship commitment or enables self-promotion (Islam et al., 2019). Whether created by a brand or generated by consumers on SNSs, the communication content builds a strong platform for brands and affects consumer-BEQ (Schivinski et al., 2015). Brand communication on SNSs creates awareness and helps in building brand image (Han, 2020). It also enables brand association and provides consumers with a virtual brand experience (Joshi & Garg, 2021). Brand communication on SNSs also directly impacts the consumers' BAT (Arya, Verma, et al., 2018). Brand associations are emotional impressions and brand-related stimuli consumers may store in their memory (Södergren, 2021), and enhanced brand association positively impacts consumer-BEQ (Keller, 1993).

According to UGT, brand followers seek individual value and benefits, and social media communication is availing this feature to communicate and establish relationships with the consumers (Tang et al., 2019). As UGT further explains, consumers' interaction and engagement with the brand on social media platforms are successful because of hedonic gratifications and social benefits (Dholakia et al., 2009; Qin, 2020). And, these benefits are building their positive attitude and improving their experience with the brand (Kapoor & Banerjee, 2020), which ultimately triggers their positive attachment toward the brand. (Huaman-Ramirez & Merunka, 2019). BAT can be categorized as consumers' emotional impressions of the product (Södergren, 2021). And, the emotional impressions inculcate in the consumers' minds would be their emotional outcome related to brand stimuli stored in their memory. The composition of affect-laden memories consumers carry would indicate increased salience or brand prominence a consumer is having because of brand association (Khatoon & Rehman, 2021), which reflect BAT altogether. And this BAT is considered an antecedent of consumer-BEQ (Romaniuk & Sharp, 2004). As such, our following hypothesis concerns the position of BAT as something that mediates the relationship between "X" and "Y": $X \rightarrow M \rightarrow Y$. Our hypothesis is, therefore:

Hypothesis 3-b *Consumers' brand attachment behavior positively mediates the relationship between brands' communication on SNSs and consumer-based brand equity.*

2.4 | Consequences of consumer-BEQ

Consumer-BEQ plays a vital role in influencing consumers' willingness to pay, and this can also be understood by its impact on their intention to purchase (Moreira et al., 2017; Paul, 2018, 2019; Paul & Bhakar, 2018). There are various reasons behind consumers' intention to purchase a particular brand, as studied by Shah et al. (2011). Consumers' intention to purchase is explained as the effort consumers make to buy any product or service from a particular brand (Sharma et al., 2021). The attitudes consumers are having, the evaluation process the consumers are following, and the perception they are having about the brands are significant antecedents considered as the motivation of PI (Moreira et al., 2017). Keller (1993) argued that a brand's attributes strongly influence the association a consumer may have in connection to it and that this contributes directly to a consumer's intention to purchase. In that respect, consumer-BEQ has various attributes that strongly influence consumers' PIs (Kizgin et al., 2018; Moreira et al., 2017).

Based on a report from CFI Group (2016), almost 93% of buyers prefer to buy a particular brand because of the communication they have established with the brand on SNSs. On the other hand, consumer-BEQ is considered a strong reason or positive motivation for consumers to purchase a particular brand (Jani & Han, 2014; Pappu et al., 2005). Their attitude toward the brand stimulates the selection of a particular brand, and brand attitude is developed because of the brand consumers' awareness (Wang & Li, 2012). A different set of attributes related to the brand stimulates brand associations, affecting consumers' PI. Consumer-BEQ has been identified as an essential factor to trigger consumers' PI (Jani & Han, 2014; Wang & Li, 2012). These days, SNSs have been widely accepted by brands as a suitable means to establish communication with their consumers; their potential in that respect is also gaining recognition in academia, as can be seen in the work of Huang et al. (2018). The propagation of digital marketing prompts brands to use social media to communicate with consumers, which ultimately helps in increasing PI (Zhang & Li, 2019) and BV ability, too (Wilk et al., 2019).

BV is termed as advocacy toward the brand, which is good communication about a brand, recommendation to the peer group about the brand and showing defensive characteristics (Keller, 2007; Park & MacInnis, 2006). It also explains the willingness of the user to invest time and making an active effector recommend the brand to someone and support the brand in the dark phase, too (Jillapalli & Wilcox, 2010).

Online BV is the same thing but in the context of online, cognitive dimension (a perception) and an affective dimension (the positivity and affection) are explaining the strength of brand advocacy or BV ability one is having while communicating about the brand on online platforms (Wilk et al., 2019). Participating in the most likable

communication about the favorite brand is known as the BV ability of the consumer. McConnell and Huba (2003) explained the “brand advocacy,” as the consumers who extend their limit to do positive word-of-mouth about a particular brand they are attached with, would be considered a true brand advocate. Mahapatra and Mishra (2017) studied the consequences of consumer-BEQ and listed BV ability or advocacy about the brand as significant, especially when the brand is available on a social networking platform. As such, extending these findings, we posit the following hypotheses:

Hypothesis 4-a *Consumer-based brand equity has a positive impact on consumers’ purchase intention.*

Hypothesis 4-b *Consumer-based brand equity is having a positive impact on consumers’ brand vocal ability.*

Based on the above-discussed relationship among various constructs, we propose the following conceptual model (Figure 1).

3 | METHODOLOGY

The current study is quantitative, in which a five-point Likert scale was used to measure the consumers’ interaction with apparel brands on SNSs, following the guidelines of Paul and Bhukya (2021). The respondents were requested to answer the questions about the apparel brand they like the most and follow on SNSs, Facebook in particular. Generation Y (young adults) was targeted as they are more frequent users of online technological gadgets and browse SNSs using mobile devices. They have a very high internet adoption rate, which helps them connected with people worldwide (Al-Adwan & Kokash, 2019). Facebook was considered as a study medium because its users are in huge numbers in India. There are close to 346 million active users, out of which around 50% logged in to Facebook daily using mobile in 2019 (Clement, 2019).

The scale used for this study is derived from existing literature and modified according to the study’s objectives. The questions were asked on a five-point Likert scale, ranging from strongly disagree to agree strongly. Some items were coded in reverse to limit response bias. To generalize the proposed hypothesis, we collected data using Google survey form circulated on Facebook during November 2019–January 2020, using the snowball sampling method. The respondents were asked if they followed any of the three apparel brands’ pages on Facebook. Those who answered Yes were considered for further survey. For this study, we received 512 completed responses and, after discarding incomplete forms, 498 responses were included in the final data analysis. To check whether the number of responses exceeded the minimum sample size required for this study or not, G*power software was used (Faul et al., 2007), which stated that the study has an adequate sample size to allow for significant results. The established scale used for this study is shown in Table 1.

In this study, BCSNS is considered a second-order reflective construct. To perform the structural equation analysis on this complex model, we have used PLS-SEM techniques using SMART PLS v3.3.3 because of its ability to deal with the complex model and higher-order constructs (Dash & Paul, 2021; Sarstedt et al., 2019). In the second stage, we have used Process-macro for mediation analysis and ANN to predict the importance of variables.

4 | RESULTS

4.1 | Demographic data analysis

The majority of the respondents in the current study represent members of the millennial generation, their age range being 25–45. 47% of the respondents were female, while 53% were male. About

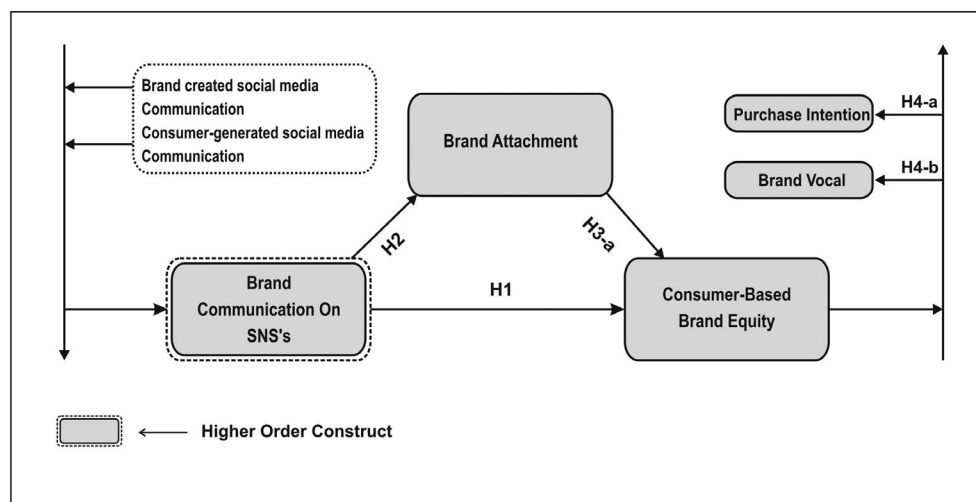


FIGURE 1 Conceptual model. BAT, brand attachment; BCS, brand created SNS's communication; BCSNS, brand communication on social networking sites; BV, brand vocal; CGS, consumer-generated SNS's communication; PI, purchase intention. *Source:* Authors

TABLE 1 Summary of scales used

The brand created communication on SNS's	I am satisfied with the company's social media communication for the brand X, which I consume The level of the company's social media communications for brand X meets my expectations Compared with the excellent social media communications of other companies, company X social media communication performs well	Magi (2003), Tsiros et al. (2004)
Consumers' generated communication on SNS's	I am satisfied with the social media communications expressed by other users about brand X The level of the social media communications expressed by other users about brand X meets my expectations Compared with the excellent social media communications of other users about other brands, the social media communications of users about brand X performs well	Magi (2003), Tsiros et al. (2004)
Brand equity	It makes sense to buy brand X instead of any other brand, even if they are the same Even if another brand has the same features as the X brand, I will buy brand X only If there is another brand as good as the brand X, I will purchase the brand X only	Yoo & Donthu, 2001
Brand attachment	I have automatic thoughts/feelings for brand X while browsing their social networking pages/online portal The thoughts/feelings come naturally for brand X while see their post/ads on my wall The presence of brand X on SNS is getting attraction automatically The presence of brand X on SNS is like a part of who I am I feel personally connected with brand X while like their SNS pages and commenting on their post	Putrevu and Lord (1994), Park et al. (2009) Putrevu and Lord (1994), Park et al. (2009)
Purchase intention	It is possible that I will buy brand X in the future I will seriously consider purchasing brand X It is highly likely that I will buy brand X again	Grewal et al. (1998)
Brand vocal	I advise to my friends and family brand X which I am using currently I participate in the conversation with others to share good things about brand X I share with others good things about the brand X naturally	Phillips et al. (2011), Gohary et al. (2020), Jones and Farquhar (2003)

Source: Authors.

44% of respondents were graduates, while 32% were postgraduates. Table 2 summarizes the respondents' demographic details.

4.2 | Normality test

Multivariate Normality has one assumption that needs to be violated for accurate model prediction (Zhang & Yuan, 2018), tested using Mardia's web-based calculator. As per the condition for normal data distribution, the skewness value must be between -1 to $+1$, and the kurtosis value must be between -5 to $+5$. And, accordingly, the Mardia's test values are not coming under threshold value as skewness value = 4.65, $p < .01$ and Kurtosis value = 65.35, $p < .01$

supporting the data to multivariate non-normal, which is a good condition for applying PLS-SEM software for data analysis (Hair et al., 2019).

4.3 | Common method bias

A CMB test was used (Podsakoff et al., 2012) using PLS-SEM. For the reflective model, the inner VIF values from a full collinearity test were less than 3 for each construct (Kock, 2015). The Harman Single Factor was also calculated and found to be 36.14%, which is less than 50%, and therefore the proposed model is considered free of common method bias.

TABLE 2 Demographic profile of the sample

Variable	Frequency	Percentage	<25	25–35	35–45	45–55	>55
<i>Gender</i>							
Female	232	47					
Male	266	53					
<i>Age</i>							
			11%	56%	22%	9%	2%
<i>Education</i>							
Less than Graduate	64	13					
Graduate	219	44					
Master	159	32					
Ph.D.	35	7					
Other(s)	21	4					

Source: Authors.

TABLE 3 Results of measurement model analysis

Construct	Items loading	Dijkstra-Henseler's rho (ρ_A)	Jöreskog's rho (ρ_C)	Cronbach's alpha (α)	CR	AVE
BAT	0.74/0.80/0.87/0.86/0.87	0.88	0.91	0.88	0.91	0.68
BEQ	0.78/0.79/0.84/0.83	0.83	0.89	0.83	0.88	0.66
BV	0.82/0.88/0.84	0.81	0.88	0.81	0.88	0.72
PI	0.79/0.88/0.85	0.79	0.88	0.79	0.87	0.70
BCS	0.86/0.89/0.83	0.82	0.82	0.82	0.85	0.61
CGS	0.85/0.90/0.81	0.79	0.79	0.78	0.78	0.55
BCSNS	–	–	–	0.68	0.86	0.76

Abbreviations: BAT, brand attachment; BCS, brand created SNS's communication; BCSNS, brand communication on social networking sites; BV, brand vocal; CGS, consumer-generated SNS's communication; PI, purchase intention.

Source: Authors.

4.4 | Assessment of the measurement model

We used the two-stage approach suggested by Hair et al. (2017) to evaluate the measurement and structural model. In the first step, we evaluated the measurement model, followed by the structural model analysis. It has been suggested by Ringle et al. (2010) that non-parametric assessment criteria, such as Cronbach's alpha, must be greater than 0.7, while Hair et al. (2017) have determined that construct reliability (composite reliability) must be greater than 0.6 and that an item's loading must be greater than 0.5. The average variance extracted (AVE) must also be more significant than 0.5 to satisfy the convergent validity condition (Hair et al., 2017). Table 3 shows that all the discussed values are below threshold values.

The discriminant validity has been established with HTMT criteria (Henseler et al., 2015), which helps estimate the correlation between the constructs. As shown in Table 4, all the constructs accord well with the HTMT criteria, the values in all cases being less than 0.85. (Gold & Malhotra, 2001).

4.5 | Higher-order construct

Using the two-stage approach advocated by Anderson and Gerbing (1998), we tested the second-order constructs' measurement and strategic model (Shmueli et al., 2019).

The structural equation analysis was done using PLS-SEM to handle the reflective-formative second-order construct, which is easily possible using partial least square-structured equation modeling (Cheah et al., 2020; Hair et al., 2019).

In this study, BCSNS is a higher-order reflective-reflective construct, which is a formation of the two reflective-constructs, namely: a brand created social media communication (BCSMC) and consumer-generated social media communication (CGSMC).

To establish the validity for the second-order reflective construct (brand communication on social networking sites, BCSNS), a four-stage approach recommended by Hair et al. (2019) was used. First, the Cronbach's alpha (α) of BCSNS was found to be 0.68, which is acceptable (Taber, 2018). Second, the composite reliability (CR) value of BCSNS was calculated and found to be 0.86. Third,

TABLE 4 Discriminant validity: Heterotrait-Monotrait ratio of correlations (HTMT)

	BAT	BCS	BCSNS	BEQ	BV	CGS
BAT						
BCS	0.34					
BCSNS	0.53	-				
BEQ	0.74	0.55	0.64			
BV	0.65	0.31	0.40	0.67		
CGS	0.51	0.63	-	0.47	0.41	
PI	0.53	0.39	0.39	0.84	0.45	0.29

Abbreviations: BAT, brand attachment; BCS, brand created SNS's communication; BCSNS, brand communication on social networking sites; BV, brand vocal; CGS, consumer-generated SNS's communication; PI, purchase intention.

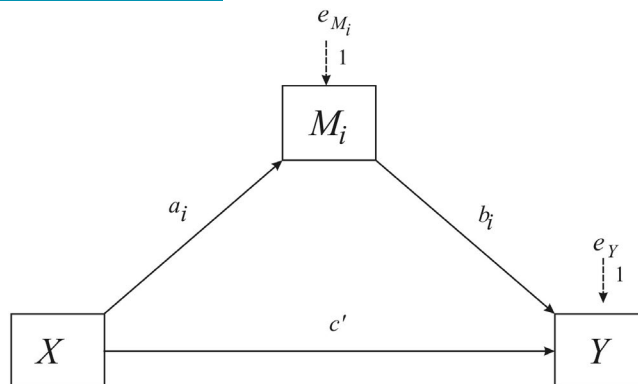
Source: Authors.

the Average variance extracted (AVE) value of BCSNS was calculated and found to be 0.76. These values are shown in Table 3 in **Italic-Bold**. Finally, the Heterotrait-Monotrait Ratio of Correlations (HTMT) value for BCSNS was calculated, as suggested by Sarstedt et al. (2019). The value of the second-order construct BCSNS, the BCSNS → Consumer-BEQ, is found to be 0.64, and the BCSNS → BAT is 0.53, which are marked in **Italic-Bold** in Table 4. So, all indicators of the conceptual model were retained as a part of the conceptual model to measure convergent validity and internal consistency reliability.

4.6 | Structural model analysis

To assess the structural model and significance of the path coefficients, we used a bootstrapping procedure with 5000 samples (Hair et al., 2017). This study used Smart-PLS 3.3, a bootstrapping and blindfolding procedure, to test the structural model (Dash & Paul, 2021). For mediation analysis, SPSS plug-in PROCESS Macro was chosen over CB-SEM because the primary objective was to predict crucial constructs (Arya et al., 2019; Hair et al., 2017), and the conceptual model is considered to be complex.

The combined effect of BCSNS on consumer-BEQ and the mediating effect of BAT on this OLS regression relationship (BCSNS → BAT → BEQ), is calculated in this study. This relationship was analyzed using Model No. 4 (Figure 2) of Process-macro (Hayes, 2018). The result of the analysis supports our Hypothesis 1. It was found that the direct effect of brand communication on SNSs is positively significant on consumer-BEQ (BCSNS → BEQ), with the results being: standardized coefficient $c = 0.55$, $SE = 0.04$, $t\text{-value} = 14.22$, $LLCI = 0.48$, $ULCI = 0.63$, $R^2 = 31\%$ while BAT is constant (Table 5b). These results are significant at the level of $p < .005$. Thus, Hypothesis 1 is proven: there is a strong association between BCSNS and consumer-BEQ, that is, BCSNS → BEQ. As is seen in Table 5a, BCSNS has a direct impact on BAT, that is, BCSNS → BAT, with the following values



Indirect effect of X on Y through $M_i = a_i b_i$
 Direct effect of X on $Y = c'$

FIGURE 2 Mediation analysis Model No. 4, Process-macro

being obtained through analysis: standardized coefficient $a = 0.50$, $SE = 0.04$, $t\text{-value} = 12.48$, $LLCI = 0.42$, $ULCI = 0.58$, and R^2 value = 25%. These results are also significant at the level of $p < .05$. Hence our Hypothesis 2 is accepted.

As per the results shown in Table 5b, BAT positively impacts consumer-BEQ (BAT → BEQ). Our analysis of the data produced the following results: standardized coefficient $b = 0.29$, $SE = 0.04$, $t\text{-value} = 13.66$, $LLCI = 0.44$, $ULCI = 0.59$. These values are significant at the level of $p < .05$. We are, therefore, able to accept our Hypothesis 3-a where BAT and consumer-BEQ are having a causal relationship with each other, that is, BAT → BEQ. Considering the effect of BCSNS on consumer-BEQ in the presence of BAT, that is, BCSNS → BAT → BEQ, the values generated by our analysis are: standardized coefficient $b = 0.29$, $SE = 0.04$, $t\text{-value} = 7.69$, $LLCI = 0.22$, $ULCI = 0.37$ (Table 5b). Considering these results, we are also able to accept our Hypothesis 3-b. The total effect of BCSNS on BEQ is 0.55 with $t\text{-value} = 14.22$, $LLCI = 0.48$, $ULCI = 0.6$, R^2 value = 31%; these values are also significant at the level of $p < .05$. Analysis of the direct effect of BCSNS on consumer-BEQ in turn produced the following results: standardized coefficient value $c = 0.29$, $SE = 0.04$, $t\text{-value} = 7.69$, $LLCI = 0.22$, $ULCI = 0.37$ (Table 5d). The indirect effect of BCSNS on consumer-BEQ is 0.26 with $SE = 0.03$, $LLCI = 0.20$, $ULCI = 0.33$ (Table 5d). The total effect (0.55) is the summation of direct effect (0.29) and indirect effect (0.26) of BCSNS → BEQ.

4.7 | Mediation analysis

It is shown in Table 7 that BAT mediates the relationship between BCSNS and consumer-BEQ. It is, therefore, essential to investigate this mediating effect. To understand this effect, Hair et al. (2014) have suggested three basic questions that need to be addressed to prove the mediating role of construct M, which are:

TABLE 5 Results of $X \rightarrow M \rightarrow Y$ (Mediation with Model No. 4, process-macro)

(a) Brand attachment act as dependent variable								
Consequent: BEQ								
	R	R²	MSE	F	Df1	Df2	p	
	0.50	0.25	0.75	155.64	1.00	458.00	.00	
Variables	Coeff	SE	t	p	LLCI	ULCI		
BCSNS	0.50	0.04	12.48	.00	0.42	0.58		
Standardized coefficients (BCSNS): 0.50								
(b) Brand equity as a dependent variable								
Consequent: BEQ								
	R	R²	MSE	F	Df1	Df2	p	
	0.71	0.51	0.49	235.43	2.00	457.00	.00	
Variables	Coeff	SE	t	p	LLCI	ULCI		
BCSNS	0.29	0.04	7.69	.00	0.22	0.37		
BAT	0.52	0.04	13.66	.00	0.44	0.59		
Standardized coefficients BCSNS: 0.29 BAT: 0.52								
(c) Total effect of BCSNS on BEQ								
Consequent: BEQ								
	R	R²	MSE	F	Df1	Df2	p	
	0.55	0.31	0.70	202.27	1.00	458.00	.00	
Variables	Coeff	SE	t	p	LLCI	ULCI		
BCSNS	0.55	0.04	14.22	.00	0.48	0.63		
Standardized coefficients = BCSNS: 0.55								
(d) Direct, and indirect effect of X on Y								
Direct effect of BCSNS on BEQ								
	Effect	SE	t	p	LLCI	ULCI	c'_ps	c'_cs
	0.29	0.04	7.69	.00	0.22	0.37	0.29	0.29
Indirect effect of BCSNS on BAT								
	Effect	Boot SE	Boot LLCI	Boot ULCI				
BAT	0.26	0.03	0.20	0.33				
(e) Bootstrap results for regression model parameters								
Outcome variable—BAT								
BCSNS	Coeff	Boot mean	Boot SE	Boot LLCI	Boot ULCI			
	0.50	0.50	0.04	0.42	0.58			
Outcome variable BEQ								
BCSNS	0.29	0.29	0.05	0.20	0.40			
BAT	0.52	0.52	0.06	0.41	0.62			
(f) Direct effects inference								
Effect	Coefficient	Standard bootstrap results						
		Mean value	Standard error	t-value	p-value (2-sided)	R² value		
BEQ → PI	0.67	0.69	0.03	19.55	.00	47%		
BEQ → BV	0.55	0.55	0.04	12.34	.00	30%		

Abbreviations: BAT, brand attachment; BCS, brand created SNS's communication; BCSNS, brand communication on social networking sites; BV, brand vocal; CGS, consumer-generated SNS's communication; PI, purchase intention.

Source: Authors.

1. Is there a direct effect between BCSNS on consumer-BEQ when the mediating variable BAT is excluded from the path model?
2. Is the indirect effect through the mediating variable noteworthy after BAT has been included in the path model?
3. How much direct effect is absorbed by the indirect effect through the mediator?

To address the first question, BAT was excluded from the path model, and the bootstrapping routine was run according to the condition described earlier. Consequently, the direct effect between BCSNS on consumer-BEQ was found to be $c = 0.29$ and significant at $p < .01$ (Table 5e). The second question required the re-estimation of the full model (i.e., including the mediator BAT) to test the indirect effect's significance. The corresponding bootstrapping results indicate that the effect of BCSNS on BAT is $a = 0.50$, and BAT on consumer-BEQ is $b = 0.51$, with a significance level of $p < .01$. As suggested by Sarstedt et al. (2019), we computed the variance accounted for (VAF) using the following formula:

$$\text{VAF} = \text{Indirect effect} / \text{total effect [where indirect effect is } = a \times b, \text{ and total effect is } = (a \times b) + c]$$

The outcome of the VAF formula was a result of 46%, which (as the value lies between 20% and 80%) indicates the *partial mediation of the* relationship between BCSNS and consumer-BEQ, that is, BCSNS \rightarrow BEQ (Hair et al., 2016). This was crosschecked with Table 5b,d, where it is observed that when BAT mediates the relationship of BCSNS and consumer-BEQ, the R^2 increased significantly (at the level of $p < .01$) by 20%. Also, the total effect of BCSNS on BEQ is significant, with the coefficient value = 0.55 (Table 5c), which is the total of the direct effect of BCSNS on consumer-BEQ = 0.29, and BAT on consumer-BEQ = 0.26. This shows that BAT has a mediating role in this relationship, supporting Hypothesis 3-b. As we found that a , b and c are significant, and all the values of a , b , and c are positive, this mediation is complementary (Zhao et al., 2010).

According to the results of the structural analysis performed on the conceptual model using ADANCO (Table 5f), the relationships

between consumer-BEQ on PI (BEQ \rightarrow PI), and consumer-BEQ on BV ability (BEQ \rightarrow BV) are significant, with a p -value of $p < .05$. As can be seen in Table 6, the causal relationship between consumer-BEQ and PI is found to be significant with coefficient value = 0.67, $SE = 0.03$, t -value = 19.55, and $R^2 = 47.2\%$. These results are sufficient to allow the acceptance of Hypothesis 4-a (BEQ \rightarrow PI).

The last hypothesis, concerning the causal relationship between consumer-BEQ and BV, was also found significant, which supports Hypothesis 4-b with the following evidence: the effect of consumer-BEQ on BV is significant at 95% confidence level with standardized coefficient value = 0.55, $SE = 0.04$, t -value = 12.34, and $R^2 = 30.4\%$. The conclusive results of all hypotheses concerning causal relationships are presented in Table 6.

4.8 | ANN

ANN is used to establish the predictive constructs and their importance concerning other constructs. It is a procedure to cross-validate the feedback propagation by multilayer perception (MLP) proposed by (Haykin, 1997). The proposed research model (Figure 3) was segmented into three sub-models, where the output (dependent variable) is changed from PI to BV, respectively. The input has three independent variables: BCSNS, BAT, & consumer-BEQ. The root mean square error (RMSE) values for training and testing appear in Table 7. According to the results of RMSE, the average difference between the RMSE results for training and testing is minimal for all two models. Model A: output layer = purchase intention (PI), mean = 0.02, $SD = 0.02$; Model B: output layer = brand vocal (BV), mean = 0.01, $SD = 0.03$. This enables us to conclude that the ANN analysis provides a good degree of accuracy (Liébana-Cabanillas et al., 2017).

To calculate the importance of independent variables for predicting dependent variables, the normalized importance ratio is used, also known as sensitivity analysis. As per Table 8, it can be seen that in Model A, the output layer is PI, which is predicted first by consumer-BEQ (NI ration = 100) followed by BAT and then BCSNS. It can be concluded from the finding that to improve consumers' PI, the brand must work on consumer-BEQ. The ANN results for the

TABLE 6 Summarized hypotheses

	Hypothesis	Proposed effect	Coefficient	R^2 value	Results
BCSNS \rightarrow BEQ	Hypothesis 1	+	0.55*	30	Hypothesis 1 is supported
BCSNS \rightarrow BAT	Hypothesis 2	+	0.50*	25	Hypothesis 2 is supported
BAT \rightarrow BEQ	Hypothesis 3-a	+	0.52*	44	Hypothesis 3-a is supported
Mediation of BAT BCSNS \rightarrow BAT \rightarrow BEQ	Hypothesis 3-b	+	0.29*	49	Hypothesis 3-b is supported
BEQ \rightarrow PI	Hypothesis 4-a	+	0.67*	47	Hypothesis 4-a is supported
BEQ \rightarrow BV	Hypothesis 4-b	+	0.55*	30	Hypothesis 4-b is supported

Abbreviations: BAT, Brand attachment; BV, brand vocal; BCS, brand created SNS's communication; BCSNS, brand communication on social networking sites CGS, consumer-generated SNS's communication; PI, purchase intention.

* $p < .05$.

Source: Authors.

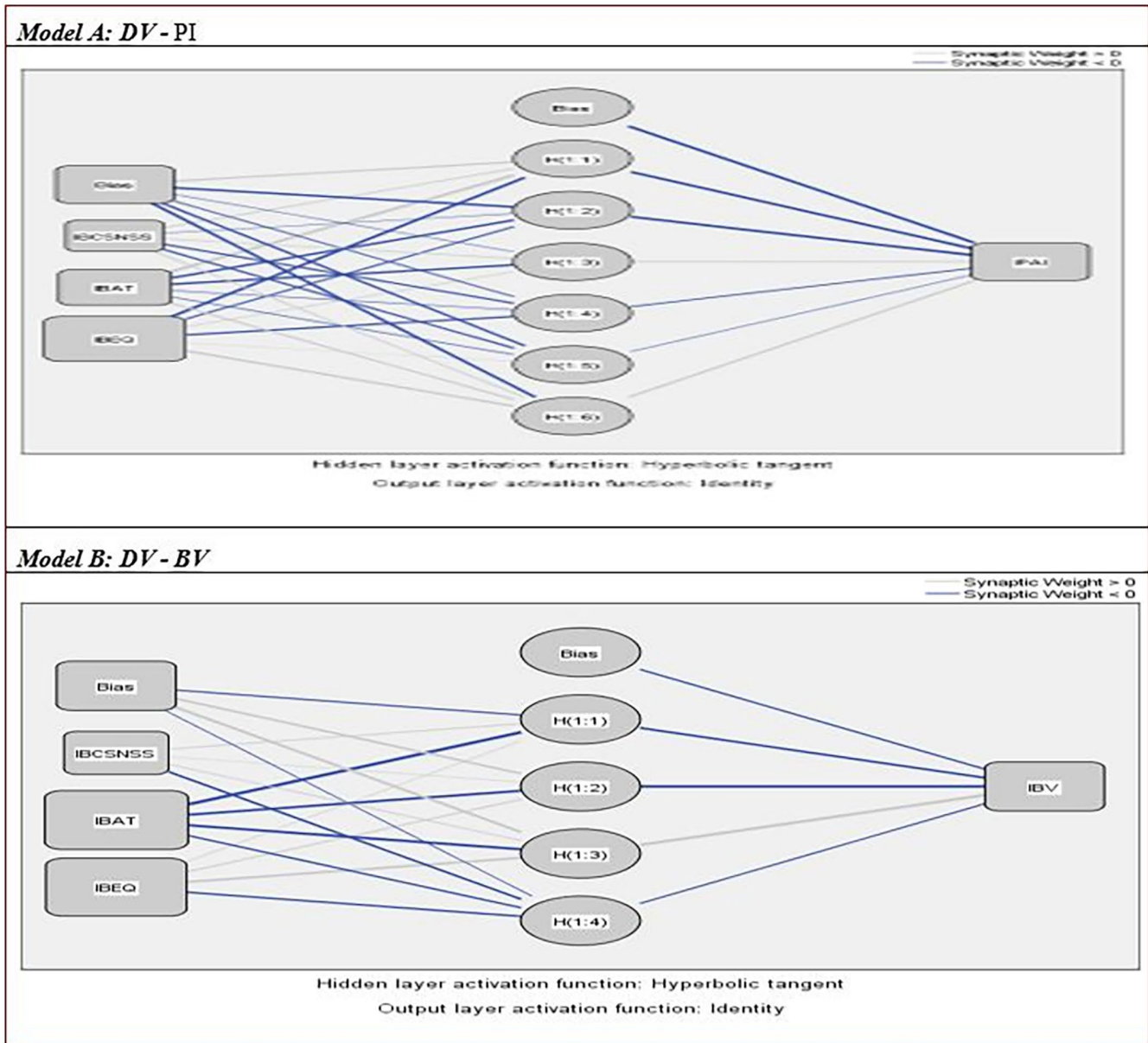


FIGURE 3 ANN model for brand loyalty (BL), purchase intention (PI), & brand vocal (BV)

last dependent variable, BV are more interesting and surprising, as ANN output suggests that variable BV is also predicted by BAT (NI ratio = 100). So, the variables BV are predicted by BAT, whereas PI is predicted by consumer-BEQ majorly.

5 | DISCUSSION

5.1 | Theoretical contributions and implications

The significant factors that shape and direct social media processes are now the focus of academic research. Following Paul (2015), our study aims to produce a new and innovative awareness of the effects of social media communication on consumer-BEQ and BAT, which

in turn impacts consumers' brand loyalty, PIs, and BV behavior. We also examine the role of user-generated and brand-created content in building brand communication and consumers' social interactions with the brand, which leads to more significant consumer-BEQ (Dash et al., 2021; Joshi & Garg, 2021; Paul, 2019). The UGT theory, which forms the basis of this study, is in the context of SNSs where consumers' individual needs, such as the need for information, contain for entertainment, way to get engaged with the brands have been explained. The present study explains consumers' motives to get associated with the brands on SNSs. Focusing on BCSNS, this study shows that consumer-generated content enhances the visibility of brands on SNSs. Brand-generated content helps a brand interact digitally with consumers, resulting in the positive development of the relationship between consumers and the brand. Furthermore,

the study adds value to the Uses and Gratification Theory, wherein consumers' mindset is understood to be based on a combination of brand awareness, associations, attitudes, attachments, and activities that can be enhanced by both consumer-generated brand-created content on SNSs.

Content on SNSs has been considered a valuable medium through which brands can engage the consumers and build a relationship with them, which assists consumers' decision-making processes (Hsieh & Chang, 2016). Accordingly, this study explores the new understanding of brand engagement on SNSs by considering how brand-created and consumer-generated content enhance consumer-BEQ. Our research works to confirm three primary notions concerning consumer-BEQ and one notion related to the

consequences of consumer-BEQ. First, it explores the research framework for consumer-BEQ in collaboration with BAT and BCSNS. Second, it shows that brand communication on SNSs has a significant, positive relationship with consumer-BEQ and that this relationship is mediated by BAT. Third, it establishes through analysis that consumer-BEQ's influence extends to consumers' relationships with a brand, in terms of their brand loyalty, BV habits, and PIs. Finally, the study elaborates on the consequences of consumer-BEQ. It adds relevant contribution to the theoretical framework where the outcome of ANN reveals that consumers' BV ability largely depends on BAT. It also adds that consumers' PI depends on consumer-BEQ. This helps brands focus on BAT more precisely because brand loyal consumers will do positive word-of-mouth about the brand, thereby attracting new consumers. In effect, positive communication on SNSs helps brands to gain beneficial visibility and become more attractive and desirable (Ho & Rezaei, 2018). Moreover, involving consumers with the brand-related online activities builds their strong relationship with the brand, creating a sense of belongingness, developing trust, and increasing consumers' satisfaction and commitment.

TABLE 7 ANN analysis result (RMSE NN modeling)

Network	MODEL A = PI		MODEL B = BV	
	Training	Testing	Training	Testing
ANN1	0.52	0.48	0.55	0.62
ANN2	0.50	0.50	0.52	0.64
ANN3	0.50	0.53	0.58	0.50
ANN4	0.51	0.44	0.56	0.56
ANN5	0.49	0.51	0.54	0.55
ANN6	0.53	0.45	0.55	0.53
ANN7	0.50	0.45	0.56	0.60
ANN8	0.49	0.41	0.55	0.54
ANN9	0.49	0.53	0.54	0.54
ANN10	0.47	0.51	0.57	0.56
Average	0.50	0.48	0.55	0.56
SD	0.02	0.04	0.02	0.04

Abbreviations: BV, brand vocal; PI, purchase intention.

Source: Authors.

5.2 | Managerial implications

The advent of social media has instituted novel avenues of brand communication (Dash et al., 2021; Sreejesh et al., 2020). Online engagement with brands is an excellent example of this. To have a strong consumer-based consumer-BEQ, brands ought to ensure that they have a presence on SNSs through which they can communicate with consumers, as this will help them devise long-term strategies (Piehler et al., 2019). While focusing on consumer-BEQ as part of a marketing strategy, brands should also explore the consumers' tech-savvy characteristics segmented based on their SNSs usages and preferences to join those online communities with relevant and

	Model A = PI			Model B = BV		
	BCSNS	BAT	BEQ	BCSNS	BAT	BEQ
ANN1	0.12	0.1	0.77	0.03	0.61	0.34
ANN2	0.15	0.14	0.7	0.03	0.41	0.56
ANN3	0.05	0.23	0.7	0.36	0.27	0.35
ANN4	0.11	0.15	0.73	0.23	0.41	0.35
ANN5	0.11	0.26	0.61	0.03	0.59	0.36
ANN6	0.04	0.26	0.68	0.03	0.46	0.5
ANN7	0.08	0.22	0.68	0.03	0.49	0.47
ANN8	0.09	0.28	0.62	0.05	0.58	0.35
ANN9	0.04	0.18	0.76	0.08	0.46	0.44
ANN10	0.09	0.23	0.69	0.15	0.59	0.25
Average	0.09	0.21	0.69	0.10	0.49	0.40
Importance normalized percentage	13	30	100	20	100	81

TABLE 8 ANN analysis result (importance of independent variables)

Abbreviations: BV, brand vocal; PI, purchase intention.

Source: Authors.

updated content for them. This is precisely in the case of Millennials. They are swift to unfollow the brand on SNSs if they find unwanted content on their social media pages. SNSs have emerged as advanced tools for brand communication, leading to an increase in consumers' PI; brands should actively explore this new platform.

Moreover, they should explore it so that consumers can be influenced to develop a positive impression about the brand simply through their viewing of digital campaigns on SNSs and following the brand page. According to ANN analysis output, consumers' PI is primarily explained by consumer-BEQ. Brands should focus on consumer-BEQ, especially when the brand is looking to increase sales volume. On the other hand, to influence consumers to become brand advocates and share good content about the brand on SNSs, brands must emphasize BAT.

Our study offers brand managers and owners lessons related to the mechanisms involved in enhancing their consumer-BEQ and increasing their brands' acceptance by the consumers on SNSs. The communication builds on SNSs platforms has emerged as an essential tool for brands to have a strong rapport with their consumers. This mainly depends on the relevant and authentic content that can motivate consumers to interact with the brand on SNSs platforms. This helps brands to entertain their users and engage them on social media platforms using gamification concepts, riddles and jokes, related music themes, videos of brand endorsers, storytelling, etc. And, this communication has become multi-purpose as content provided by the users is equally important for other users, just like sharing of experience related to the product and posting feedback and opinion are valuable assets for brands to maintain online reputation. Brands should extend their virtual platforms so that genuine and authentic feedback/comments by the consumers are welcome and visible and enable auto-mechanism, which can help consumers resolve their queries in real-time.

The proposed model also deals with the mindsets of consumers and their post-buying behavior. In practical terms, our study attempts to enable managers to map and seize their consumers' minds through social media communication by offering them a range of services. These services might include addressing consumers' complaints in real-time or asking them for suggestions and reviews in the same way the e-commerce shopping site *Sears* does in the US. Brands must encourage the consumers to share their feedback and suggestions to improve the quality of services. They must also engage with them on SNSs through activities, such as competitions or games, or by involving them in designing brand advertisements or taglines. In this way, consumers will generate content for the brand, and the campaign will gain popularity in the form of "#CampaignName," etc. These activities tend to increase the involvement of consumers, which ultimately helps the brand to augment its presence in the virtual world. In return, consumers can receive loyalty rewards that they can use when making their next purchase.

The apparel brand *Forever21* focuses on catering to women who want to maintain a youthful appearance. As a result, they can easily target young and dynamic women, active on Facebook and Instagram, aware of the new product launches, and ask them to

review the product. This has both monetary and non-monetary benefits. Positive reviews by existing consumers have the potential to increase the faith of the next generation of consumers and encourage them to buy the brand's products or use its services. For example, *Airbnb* uses a review system that helps both the host and the guest gain a sense of trust in the other party. Business conducted through online communities is the future for marketers, as geographic or demographic boundaries do not restrict these communities, and transparent communication in real-time makes it possible to get feedback about the product from consumers.

5.3 | Limitations and future research directions

This research focuses on consumer-BEQ when consumers are actively engaged with brands' communication on SNSs and are influenced by their digital campaigns. In analyzing that relationship, the study has only considered the mediating role of BAT. Future research, however, might also explore the role of brand experience and brand love, consumers' skepticism, the social identity of consumers as a parallel mediator within the same conceptual model.

Future studies could also focus on the role played by social media agencies in raising consumers' intentions to purchase products, that is, social selling and strengthening decision-making processes such as need-recognition, awareness, consideration, and evaluation. Bu (2021) provides some ideas for future studies in this context. A qualitative research method might be used to provide a narrative analysis of consumers' brand experience. Moreover, this study could expand with multi-country data. Our study can also be extended to examine consumer engagement on mobile e-commerce apps: comparing brand perception and brand reality, and e-loyalty and actual brand loyalty.

The COVID-19 era has seen tremendous inclination toward social media use, which has resulted in more time being spent on SNSs. Numerous studies have indicated how the face of consumer consumption and engagement has undergone a substantial transformation. For instance: Self-control and consumption (Gordon-Wilson, 2021); technology and consumer vulnerability (Yap et al., 2021); effect of hope and fear on consumer behavior (Kim et al., 2021), obsessive-compulsive behavior & impulsive buying behavior (Islam et al., 2021). This study can be validated in the COVID era and post COVID era. Consumer vulnerability and focus on SNSs can result in better brand communication, which can potentially influence consumer-BEQ, with BAT playing a vital role. Future studies may explore how consumer loyalty has got affected due to the over-dependence on SNSs during COVID and may also try to validate this study post the COVID era to understand the nuances in a better way.

6 | CONCLUSION

The recent development in using social media applications provides a new direction for brands to build a digital relationship with their

consumers, explicitly focusing on personalized online communities on social media platforms. It is essential to ensure that content used for communication on social media platforms, whether created by the brands or generated by the consumers, must be synchronized properly. The present study elaborates the conceptual model of how brand-created communication and consumer-generated communication develop strong communication related to brand on social media platforms. This further helps in strengthening consumer-BAT by engaging consumers on SNS platforms and using individual online communities for personalized communication.

Jahn et al. (2012) stated that the emotion-laden bond someone has with the brand is known as BAT. And, consumers feel secure and make more purchases when they develop this bond with the brand. Consistent with the researchers' findings in the past, we found that brand-created communication and consumer-generated communication on SNSs have a significant impact on consumers' BAT. As studied, the higher the BCSNS (value is $\beta .50$), the stronger their BAT. Concerning the mediating effect of BAT, the bootstrapping results explain the mediating role of BAT between BCSNS and consumer-BEQ. First, the current study results show that the BCSNS is formed of two types of communication "brand-created communication and consumer-generated communication," which has an impact on consumer-BEQ. Second, this study establishes the role of BAT to mediate the relationship of BCSNS and consumer-BEQ, and this mediating effect of BAT has a deep concern to strengthen the consumer-BEQ and to have high tendency to improve the PI, BV and brand loyalty too.

This study investigates how communication on virtual platforms helps brands to increase consumer-BEQ. To achieve the higher value of consumer-BEQ, the current study examines the role of BAT as a mediator between brand communication on SNSs platforms and consumer-BEQ. The User and Gratifications Theory (UGT), which has been used to study the behavioral response of the consumers concerning their engagement on SNSs, has been elevated to the next level where content used for communication purposes, either created by the brand or generated by the consumers, helps brands to improve the consumers' overall attachment to the brand which is having a positive impact on consumer-BEQ as well. The study further examines the consequences of consumer-BEQ. It states that brand loyalty, PI, and BV ability of the consumers increases positively when consumer-BEQ is increased substantially. In the second stage, we have analyzed a critical predictor, BAT, to measure brand loyalty, and BV using ANN analysis. As per the ANN results, focusing on BAT is essential for brands that want to increase their loyalty. And, brands that want to uplift their sales volume and are eager to increase the consumers' PIs must focus on these factors that can enhance the consumers' based brand equity. In the end, to increase the BV ability of the consumers, that is, the word-of-mouth for their brand, brands must focus on investing their resources to improve consumers' BAT behavior.

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CONFLICT OF INTEREST

We Declare that there is no conflicts of interest attached with this manuscript.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author.

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