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**Examining branding co-creation in brand communities on social media: Applying the paradigm of Stimulus-Organism-Response**

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**Abstract**

This paper examines the antecedents of branding co-creation that include social networking sites' (SNSs) participation motivations, customer participation, brand trust and brand loyalty in social media brand communities by applying the "Stimulus-Organism-Response paradigm". The survey method was used to gather data from 407 social media users. Data were analysed using structural equation modelling techniques. The findings reveal that SNSs' participation motivations positively influence customer participation, which in turn significantly affects brand trust and brand loyalty. Consequently, both brand trust and brand loyalty positively influence branding co-creation in brand communities on social media. Furthermore, brand trust contributes as a mediator between customer participation and brand loyalty on social media brand communities. Although studies on relationships examined through the lens of the Stimulus-Organism-Response paradigm are popular, to the authors' surprise there is scant literature examining the relationships between SNSs' participation motivations, customer participation in social media brand communities, brand trust, brand loyalty and branding co-creation.

**Keywords** Customer participation; Motivations; Social media; Social networking sites; Online brand communities; Brand trust; Brand loyalty; Branding co-creation

**Paper type** Research paper

## **1. Introduction**

In marketing theory, the concept of co-creation has emerged as a prominent field of study. Co-creation involves the processes by which a company and its customers jointly participate in value creation (Prahalad and Ramaswamy, 2004). At first, Alderson (1965) advocated an ecological framework to study marketing systems with specific mention of cultural ecology, thereby pioneering a broader view of marketing. Consequently, Vargo and Lusch (2004) proposed Service Dominant (S-D) Logic (Vargo and Lusch, 2016) to denote actor–environmental interaction, energy flow and mutual service provision. Vargo and Lusch (2014) define a service ecosystem as “a relatively self-contained, self-adjusting system of resource”. According to the S-D logic concept, consumers are supposed to create “value-in-use” and “co-create value” with companies, retain their own identity (Denegri-Knott and Molesworth, 2010) and build social networks (Holt, 1995). Recently, a number of studies in marketing have concentrated on co-creation as a paradigm shift. The concept of co-creation has gained significant attention in the areas of marketing and more recently branding (Hatch and Schultz, 2010). Several researchers have emphasised how customers and companies interact collaboratively for value co-creation (Gro'nroos, 2006).

The emergence of social media facilitates a range of new means to communicate, interact and involve customers (Nambisan and Baron, 2007), and it assists value co-creation (Zwass, 2010). Nowadays, customers can create online brand communities, which may have an influence on insights regarding brand (McAlexander et al., 2002). With social media sites, customers can interact actively with each other in online brand communities and can share stories about the brand (Hajli et al., 2017). Gradually, online communities on social media sites are providing a platform to customers to interact and jointly contribute to the process of co-creation (Zwass, 2010).

The concepts of social media and brand community meet at an important juncture: community or socialness. The concept of brand communities recently captured the attention of several marketing researchers and practitioners (Brodie et al., 2013; Kang et al., 2014; Zhang and Luo, 2016). Due to the rapid proliferation of Internet and increased ubiquity of social media, brand communities and online platforms are hugely studied in social aspects. Empirical studies are also conducted on combined conceptualization of brand communities and social media (Habibi et al., 2014; Laroche et al., 2013).

Prior studies in the area of online communities exhibited that participation in brand communities leads to the creation of brand value (Schau et al., 2009). In social media, participation occurs in brand communities through the posting of reviews, comments, rating, sharing experience etc. Thus, participation of customers on discussion forums of any brand community may positively or negatively impact brand reputation/brand image (Veloutsou and Moutinho, 2009). Literature also supports the idea that customer participation affects brand in various aspects, for example, brand trust, brand loyalty, brand equity etc. (Casaló et al., 2007; Chae and Ko, 2016; Gummerus et al., 2012; Hennig-Thurau et al., 2010).

Although there is an abundance of studies on branding in general, scant research is available on empirically examined branding co-creation in brand communities in a social media context. Additionally, past studies (see Christian et al., 2014; Hajli et al., 2017) have also emphasised the usefulness of online communities' effectiveness as a significant marketing instrument for co-creation of branding. The role of online brand communities on social media in strengthening the relationship between customer and brand has been of considerable academic interest (Kang et al., 2014; Khan, 2017; Teichmann et al., 2015). Various brands have established their brand communities on social media sites to communicate, promote and advertise their new offerings to their customers and to encourage them to participate in order to create customer-brand relationships (Zaglia, 2013). Brand communities as a marketing tool facilitate the social interactions among customers (Algesheimer et al., 2005). Moreover, the increased penetration and usage rate of social media among the users of emerging countries, such as India, provide a huge scope for studying relevant issues related to branding co-creation in social media communities (Hajli et al., 2017).

The present paper addresses the above-discussed research gaps by applying the "Stimulus-Organism-Response (SOR)" paradigm to investigate customers' motivations for participation in brand communities on social media that leads to customer participation, which finally results in brand trust, brand loyalty, and branding co-creation. However, while prior literature on branding is abundant, still there is little research in the context of branding co-creation in social media brand communities (Hajli et al., 2017). Brand communities enable users to interact on social platforms, and they are valuable marketing tools for companies. Thus, more research regarding branding co-creation with customers is required, and the present study intends to address this research gap. Thus, this paper is one of the pioneering studies that examines empirically whether and how

customers' participation in social media brand communities leads to branding co-creation. We hope that the present study will fill the research gap in the marketing literature, which until now has lacked research on motivating factors affecting customer participation results in branding co-creation.

This paper is structured as follows: initially, we review the literature concerning the main constructs of the article. Next, we propose hypotheses and develop a research model. After that, we discuss research methods adopted and describe the research findings. Finally, we describe the discussion followed by implications, limitations and future research directions.

## **2. Theoretical Background**

### *2.1 Stimulus-Organism-Response (S-O-R) framework*

Mehrabian and Russell (1974) initially proposed the “S-O-R framework”, which was later modified by Jacoby (2002). This framework suggests that some environmental aspects provoke the individual's emotional and cognitive condition, resulting in certain behavioural outcomes (Donovan and Rositer, 1982). Researchers (see Mollen and Wilson, 2010; Rose et al., 2012; Eroglu et al., 2003) extended this framework to website experience, consumer behaviour areas and computer experience etc. This paper applies the “S-O-R framework” in the domain of consumer behaviour.

The “S-O-R framework” includes three components: stimulus, organism, and response. The first “*stimulus*” component refers to “the influence that arouses the individual (Eroglu et al., 2001)”. In social media brand communities, the stimulus is the motivations for participation in communities that affect the internal state of customers (Wang and Fesenmaier, 2003). The present paper considers the motivations (building interpersonal relationships, entertainment, information seeking, brand likeability and incentives) for participation on social media sites to be the stimuli for customers. We propose that all these motivations have a significant influence on customer participation in brand communities, specifically in the case of social media.

The “*organism*” as a second component refers to the customers' affective and cognitive condition and it consists of the entire processes that intervene between both stimuli and responses to the customers (Loureiro and Ribeiro, 2011). Affective position reveals the feelings and emotions expressed by customers following the stimuli. According to Eroglu et al. (2001), cognitive position refers to “everything that goes in the consumers' minds concerning the acquisition, processing,

retention, and retrieval of information”. Thus, customers process stimuli into meaningful information, which further assists their decision making (Loureiro and Ribeiro, 2011). In this study, three dimensions of customer participation in SNSs’ brand communities (informational, attitudinal and actionable) are considered (Kamboj and Rahman, 2017). We therefore propose that customers’ participation as an “organism” with SNSs’ brand communities will be influenced by the environmental cues (for example, SNSs’ participation motivations) that influence the affective and cognitive state of customers. We base this proposal on our belief that online communities in the environment of “computer-mediated communication (CMC)” such as SNSs on social media (Boyd and Ellison, 2007) may provide the information necessary to satisfy the customers’ cognitive and affective needs (Shang et al., 2006).

The last component of “S-O-R framework” is ‘response’, which refers to the consequences of customer participation in brand communities on social media, in the form of customers’ behaviour towards the brand (Donovan and Rositer, 1982). Various brand researchers have argued that an important outcome of consumer behaviour in terms of brand communities is to build loyalty towards the brand (McAlexander et al., 2002, Schau et al., 2009). Similarly, online communities as a social structure (i.e. communities on social media) significantly influence trust and loyalty (Habibi et al., 2014; Laroche et al., 2012, 2013). Brand communities on social media persuade customer participation and allow them to participate in branding co-creation (Hajli et al., 2017; Wang and Hajli, 2014). Based on the above discussions, in the present paper, we investigate brand trust, brand loyalty and branding co-creation as outcomes of customer participation in social media brand communities.

## *2.2 Social media brand communities and customer participation*

According to Kaplan and Haenlein (2010), “social media is a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and allow the creation and exchange of User Generated Content”. Habibi et al. (2014) explained five aspects which make SNSs’ brand communities distinctive and different from online brand communities. The first is about the “*social context*” i.e. “Web 2.0 technologies”, with which members can acquire huge information (location, profiles, family status, pictures, and gender) with reference to their fellow members easily. The second dimension is “*structure*”; there is no implicit and explicit structure in social media brand communities (Habibi et al., 2014). The third factor is “*scale*”; social media

brand communities can have millions of members as brand admirers or fans. The fourth dimension is “*storytelling*”; it is presented in the form of uploading videos and photos followed by texts. The last factor is various “*affiliated brand communities*”; there can be several subgroups for a particular brand community.

Initially, Rishika et al. (2013) suggested the emerging concept of “Customers’ Social Media Participation” to explain the customers’ participation on SNSs and also advocated that their frequency of online visits to a company’s SNSs strengthened the association between customers and company. Thereafter, Kim and Ko (2012) described customer participation on social media in the terms of participation steps and suggested that in order to understand customer participation, customer interactions also need to be considered. Recently, Chae and Ko (2016) explained customer participation on social media and termed it as customer social participation (CSP).

According to Chae and Ko (2016), CSP refers to “an effort to achieve co-creation of values through required but the voluntary interactive participation of the customers in service production and delivery process in social media”. The regular advancement of SNSs has facilitated brands to communicate information publicly using social media tools to ensure more participation from customers. An individual makes their purchases online and can share information anywhere at any time using “high-tech” smartphone devices, thus, all these have made customer participation more natural and convenient (Chae et al., 2015). Customer participation on social media sites can be conceptualised as deliberate participation (e.g., providing evaluation), unintentional participation (e.g., searching information), and resultant participation (e.g., WOM, intention behaviour etc.) (Kim & Pak, 2013).

The review of literature reveals that in the context of social media, customer participation in brand communities is an emerging area, and the majority of studies conducted on this topic are conceptual in nature (Casalo et al., 2008), and they attempt to focus on what customer participation is in an online context, types of customer participation (active and passive participation), how customers participate and what motivates them to participate in online communities. A number of researchers have highlighted the need for further exploration and empirical validation of causal relationships between customer participation and other related constructs in online brand communities (Chae and Ko, 2016; Gebauer et al., 2013; Kang et al., 2014; Tsai et al., 2012). Thus, a gap exists in the literature regarding the empirical investigation of antecedents and outcomes of

customer participation in online brand communities on social media sites, as none of the studies have investigated them comprehensively.

### *2.3 Branding co-creation with customer using social media*

The co-creation concept emphasises value-in-use, which considers that value is created when the customer uses the product and the firm can enhance the creation of such value-in-use by providing resources and supporting the customer to integrate these resources with other private and public resources. As the S-D logic is evolving, Vargo and Lusch (2006) discussed a shift in the thought of S-D logic from FP6 (“The customer is always a co-producer”) to (“The customer is always a co-creator of value”) (Vargo and Lusch 2004, 2006; Vargo and Lusch, 2008).

Vargo and Lusch (2008) believe that co-production is distinguished from value co-creation but is an integral element of co-creation of value and captures “participation in the development of the core offering itself”. They (2008, 2016) distinguished between co-production, referring to “the creation of the value proposition – essentially, design, definition, production, etc. and ‘value co-creation’– the actions of multiple actors, often unaware of each other, that contribute to each other’s wellbeing”. Coproduction has been viewed as an optional subject to a whole host of factors (e.g., knowledge and need of the beneficiary, existing knowledge about customer preferences etc., whereas value co-creation is considered positive in human systems that focus on independency and specialisation. According to S-D logic, value is not produced by the manufacturer and then acquired by the customer through the purchase of the product; rather, value is co-created when the customer uses the product and integrates it with her/his own resources (Simeoni and Cassia, 2017). Thus, the focus shifts from production to the value co-creation process (Vargo and Lusch, 2016).

In the field of branding, co-creation has been conceptualised by a school of thought that viewed it as “service branding” through which the firm and the customer co-create brand meanings and brand experiences (Brodie, 2009). Berry (2000) argued the distinct contribution of brands in a context of services in the process of value-addition, which results into customer experience, dialogue and learning. However, Prahalad and Ramaswamy (2004) considered the relationship between customer and brand as a two sided process with an emphasis on “reciprocity, mutual exchange and fulfilment of promises” (Dall’Olmo Riley and de Chernatony, 2000).

Consequently, Brodie et al. (2006) and Prahalad and Ramaswamy(2004) discussed branding from the S-D Logic perspective and suggested that brands are evolving due to value co-



creation. The S-D logic focuses on the value-adding processes that result in customer experience as a co-created value (Vargo and Lusch, 2004; Brodie et al., 2009), and the interfaces of the brand include end customers, the company and its employees and the stakeholders (Brodie et al., 2009). Moreover, researchers put little emphasis on the branding domain and branding co-creation. Arnould et al. (2006) also commented that branding as a subject seems “ripe for revision” and seek more emphasis in the direction of a co-creation approach to the brand (e.g., Bello et al., 2007). The above observations were also echoed by Brodie et al. (2006) as they viewed that in service literature, any reference to branding is often indirect and needs attention in terms of future research scope. Lusch and Vargo (2016) defined “a service ecosystem as a relatively self-contained, self-adjusting system of resource between the two, institutions are the rules of the game; organizations are the players (the teams)”.

Literature presents an emerging research stream about branding that supports “Service Dominant Logic” (Brodie et al., 2009; Vargo and Lusch, 2004, 2008) and focuses on processes of value adding, which result in the formation of customers’ experiences. Thus, this viewpoint presents the brand with a wider role where it interfaces among all customers, the company, the stakeholders network, and its employees (Brodie et al., 2009). A number of authors, such as Grönroos (2000), Prahalad and Ramaswamy(2000), Vargo and Lusch (2004),proposed that in the process of co-creation, value is embedded between producer and customer, and where the customer transfers from passive player to active actor. Regardless of the significant amount of research on branding, it remains a contextual concept and fragmented topic (Jevons, 2007). Additionally, studies in the domain of brand management place amazingly little emphasis on customer co-creation and brand relationships. In the service-dominant logic context, Arnould et al. (2006, 294) state that branding seems “ripe for revision”. Brodie et al. (2006) examine the fact that any reference in the domain of service literature towards branding is often indirect, and that Vargo and Lusch (2004) just briefly talk about the concept of branding.

Gradually, research on brand communities is increasing significantly as consumers are considered knowledgeable and able to develop products for themselves with support from the Internet (Fuller and Matzler, 2007). Customers with extensive knowledge of products/services engage in product/service-related discussion and support each other in finding solutions also (Fuller et al., 2008). Brands and products are starting to have more online communities. Relevant studies show that user-generated content about a brand is gaining importance and prospering on

social media (Lakhani and Wolf, 2005). For example, in certain cases such as Coca-Cola, steel case, etc., brand communities are playing an active role in the development of a product/service (Kohler et al., 2011). The benefits of consumer/user participation in branding co-creation are that the companies get to know about consumers'/users' needs, wants and preferences about a brand and benefit from their shared knowledge through posts shared by brand community members (Baldwin et al., 2006). Moreover, content provided by brand communities may also describe their members' expertise, skills, and experience profile (Adebanjo and Michaelides, 2010).

Storbacka et al. (2016) proposed 'actor engagement' as a micro foundation for value co-creation and discussed resource integration as a key for value co-creation which occurs through user/customer engagement in interaction and exchange of product/service-related information on brand community pages on social media. As it is difficult to measure branding co-creation empirically, researchers focus their studies more on actor engagement and related resource integration, which are observable, designable and manageable as a proxy of branding co-creation (Storbacka et al., 2016).

Branding co-creation is gradually becoming popular among MNCs. For example, 'Being Girl' was a web-based forum developed by P&G for preteen and teen girls. This forum was used by the girls to interact with each other anonymously, and to share their views about feminine hygiene. Through the brand community pages, P&G was able to interact with customers and was successful in branding co-creation with customers through customer education and awareness about its programmes and products on social media (Ramaswamy, 2009).

Previous research was based on the idea that online brand communities contribute significantly to developing and improving brand loyalty and creating word of mouth (Armstrong and Hagel, 1996). Nowadays these are all becoming significant due to the contribution of social media in relationships between brands and customers (Park et al., 2007). In addition, mobile and online technologies provide an interactive platform to customers and communities to co-create, share, and modify content created by users (Kietzmann et al., 2011). These online platforms are channels that co-create brands and the branding process in an online situation, as opposed to combining two branded products to create a distinctive product (Park et al., 1996). Thus, all these provide many opportunities to companies to build their brand. These platforms are used by customers for experience sharing so as to create brands' shared meanings (Muniz and O'Guinn, 2000).

The use of social media is transforming the process of online branding because of rapid information sharing (Chordes, 2009). In social media communities, participation and involvement are an important element of co-creative branding (Hajli et al., 2017). Owing to the increasing significance of customer participation, branding nowadays has shifted from being a company-based activity to a joint co-creation activity, where both company and their customers participate (Merz et al., 2009). Consequently, co-creation is customers' engagement process in the creation of value, as customers' role is changed from "passive to active participants" (Prahalad and Ramaswamy, 2004; Vargo and Lusch, 2004). Value co-creation depicts a participative society where companies look to get valuable insights of customers about brands (Ind et al., 2013). Indeed, Parmentier (2015) has suggested that companies may innovate with customers via organising co-creative activities in a brand community, and collaborate different types of users so as to have new ideas and content related to innovation.

Various scholars have proposed several ways to organise the value co-creation process. Payne et al. (2009) suggested a model with four different elements: encounters when customers' interactions are forming experiences, customers' process of value-creation, influences of supplementary sources of brand knowledge suppliers, and suppliers' process of value-creation. France et al. (2015) proposed a brand engagement model with involvement and self-congruity as branding co-creation precursors, which led to influencing brand knowledge and brand value. Singh and Sonnenburg (2012) advocated using "Improvisational theatre" to explain how brand owners use social media not only to enlighten stories related to the brand, but to co-create their brand in a relationship with others. Once customers are happy to co-create the brand in the online brand community, they discuss their experiences and share feedback regarding preferred brands with others to make them purchase (Gensler et al., 2013). Thus, the involvement of customers has a significant influence on brand, builds up trust, and provides much more from the customers' perspective (Kim et al., 2008). These consequences are important in the domain of "social commerce, i.e. the evolution of e-commerce activities on social media platforms" (Liang et al., 2011). In SNSs' platforms, branding co-creation is possible with customers when they participate in the online brand community (Hajli et al., 2017).

A celebrity endorser is defined as "anyone who enjoys public recognition and who uses this recognition on behalf of a consumer good by appearing with it in an advertisement" (McCracken, 1989). Celebrity endorsement is widely used in marketing because marketers believe that

celebrities attract the attention of consumers and the celebrities' positive traits are transferred to the endorsed brands. Researchers have been concerned with celebrity endorsement that has positive effects on brand awareness and loyalty (Miller and Laczniak, 2011), attitudes toward advertising messages (Silvera and Austad, 2004), brand attitudes (Till et al., 2008), and brand awareness (Chan et al., 2013). Social media provides a safe and convenient way for celebrities to interact with a large number of fans. Many celebrities use different platforms of social media (for instance Facebook, Twitter, etc.) to engage in constant conversation with their fans. Similarly, user endorsement is also important to improve brand reputation (Kumar et al., 2010). Rappaport (2007) identifies two main aspects: "the high relevance of brands to consumers, and the development of an emotional connection between consumers and brands".

#### *2.4 Branding vs brand*

In the present study, the term 'branding' is used instead of the term 'brand'. There are differences between the two terms 'Branding' and 'Brand', which are discussed as follows. In literature, 'Branding' has been described as a process (Kietzmann et al., 2011). Due to increased use of mobile and social media platforms, branding and brand communities have emerged as mediums for brand community members to share, co-create, and discuss branding-related issues (Kietzmann et al., 2011; Park et al., 1996; Hajli et al., 2017).

On the contrary, brand has been defined by Kitchen and Schultz (2001) as a set of views in the consumer's mind. Kotler and Armstrong (2013) defined a brand as a "name, term, sign, symbol (or a combination of these) that identifies the maker or seller of the product". Extending the definition of AMA, Aaker (1991) defined brand as "a distinguishing name and/or a symbol (such as a logo, trademark, or package design) intended to identify the goods or services of one seller, or group of sellers, and to differentiate those goods or services from competitors who would attempt to provide products that appear to be identical".

Brands are developed to ensure product/service quality (Dawar and Parker, 1994) and ease the purchase decision-making process of the consumers (Jacoby et al., 1977). Earlier, branding practices were used to build the image of a product/service (Morrison and Crane, 2007) through a range of promotional and communication activities. However, the rise in the service sector as a global phenomenon supported by the concept of "service-dominant logic" (Vargo and Lusch, 2004) has transformed conventional thought about brands. Customer-company interaction (Berry,

2000) and value-in-use (Grönroos, 2011) are considered determining factors for brand value and customer experience. A customer who has positive experience is more likely to be loyal and have continuing connections with the brand (Brakus et al., 2009). Thus, modern branding thought considers the contribution of brand as a boundary between customers, employees, and stakeholders of a company (Brodie et al., 2006, 2009).

Co-creation and branding have been integrated by Payne et al. (2009) to study customer experiences. A few elements have been proposed in the customer experience model that include: the value creation processes with the involvement of customers, with the suppliers (including the means for designing, co-creating a brand experience, and relationships), the dealings that result in co-creating experiences, and brand knowledge.

### *2.5 Brand co-creation vs branding co-creation*

The concept of brand co-creation emerges from the assumption that the customer is not a passive buyer of a brand, rather they actively participate in the creation of brand experiences (Prahalad and Ramaswamy, 2000; Vargo and Lusch, 2004). As a result, the consumer can now contribute significantly in determining the modern brand's success. The theory of brand co-creation by the customer is limited due to the initial stage of development (France et al., 2015). The studies in the domain of strategic management provided a wider conceptualisation of co-creation (Hatch and Schultz, 2010). However, the management perspective dominates the extant literature with limited examination of customer co-creation and its influence on brand (France et al., 2015).

The co-creation by customers can influence brand perception of other customers (Payne et al., 2009). Exchanges between the customer and firm, and via the customer's brand experience, co-create the brand (Healy and McDonagh, 2013; Vallaster and von Wallpach, 2012). Thus, the significance of brand co-creation by the customer is important (France et al., 2015; Payne et al., 2009). Vallaster and von Wallpach (2012) identify that, "organisations no longer unilaterally define and control the brand, rather that the brand is co-created by customers". Brand co-creation behaviours of customers are the customer-led interactions between the brand and customer (France et al., 2015). France et al. (2015) suggested a conceptual model of brand co-creation with brand engagement, customer involvement and self-congruity as predictors of brand co-creation, which in turn, influences brand knowledge and brand value.

With the emergence of new technologies (web-based and mobile), online users' in different brand communities can interact, co-create and share "user-generated content" using different platforms (Kietzmann et al., 2011). These platforms are widely used for branding co-creation in an online environment, as contrary to combine two different brands to make a unique and separate brand (Park et al., 1996). The continuous use of social media platforms has changed the branding process online due to information sharing on a fast basis (Chordes, 2009).

Customer involvement and their participation on social networking platforms is an essential aspect of branding co-creation (Hajli et al., 2017). In context of participatory culture, the branding concept has shifted to value co-creation activity where both company and its customers participate in branding co-creation process (Merz et al., 2009). Thus, co-creation is the process of customer's engagement in value creation (Prahalad and Ramaswamy, 2004) as online customers are changed from inactive to active consumers (Vargo and Lusch, 2004). Co-creation of value by customers leads to a participatory culture where companies can search out the ways to acquire more insights of customers regarding their brands (Ind et al., 2013).

For example, Parmentier (2015) has found that firms can innovate with customers via co-creation activities in a brand community, creating valuable innovations by encouraging various users to provide ideas and other content relating to innovation. Researchers have proposed a variety of ways to manage branding co-creation process. Payne et al. (2009) suggested a conceptual model with four components: value-creation process by customers, suppliers, customer experiences and brand knowledge. Singh and Sonnenburg (2012) proposed using "improvisational theatre" to demonstrate that via social media the brand owners not only tell brand stories, but also co-create the brands in association with others. In social media brand communities, once users become involved with branding co-creation, they present and share their experiences and relevant information on their preferred brands, and persuade others to buy them (Gensler et al., 2013). Thus, branding with customers via the platforms of social media is possible through online brand community participation (Liang et al., 2011).

### **3. Research model and hypotheses development**

In order to investigate the relationship among SNSs' participation motivations, customer participation in social media brand communities, brand trust, brand loyalty and branding co-

creation, by applying the “S-O-R framework” this paper proposes a research model and a number of hypotheses as described in Figure 1.

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“Insert Figure 1: Research model”  
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### *3.1 SNSs’ participation motivations and customer participation in SNSs’ brand communities*

Motivation is important for participation behaviour. Different motivations result in distinct participation behaviours and choices; for example, information, entertainment, and friendship can motivate users to use media (Chae et al., 2015). Motivations for social media users to use media are positively associated with their participation behaviours (Joinson, 2008). The more they use social media for information, social connection and entertainment, the stronger their participation will be in building communities on social media platforms. The many factors that motivate people to use social media sites such as Facebook include: information investigation, relationship building, social connection and entertainment seeking (Zhang and Pentina, 2012).

Information investigation is any activity carried out to acquire technological and human knowledge. In this study, it refers to obtaining information, which satisfies interest, fulfils curiosity and explains cultural events and current news (Park et al., 2009). Activities that provide amusement and fun ways to spend one’s spare time are known as entertainment. In this study, entertainment refers to the use of social media sites to spend extra time, fun, relaxation and hedonistic pleasure activities (Leung and Wei, 1998). Users undertake relationship building to retain durable and satisfactory relationships. This research defines relationship building as using SNSs to connect with others easily and to maintain connections better (Sheldon, 2008). Individuals’ motivations to use social media sites affect their social media site selections, and communication leads to influencing their participation behaviour (Chae and Ko, 2016). Stronger SNS participation motivation results in stronger CSP (Chae and Ko, 2016). Therefore, motives to use SNS when participating in social media, especially entertainment, relationship building, brand likeability, incentive and information seeking, will be positively linked with customer participation on social media sites.

The online environment of SNSs evokes participation motivations, which is most important to active customers. As a theoretical basis, motivation theory has been thoroughly applied to

examine the activities of individuals who accept the latest changes (Davis et al., 1992). This research classified SNS participation motivations into building an interpersonal relationship, brand likeability, entertainment, information seeking and incentive motivation. Thus, motivations to participate are considered as a driver of customers' participation behaviour, and it may be anticipated that these motivations to participate significantly affect SNSs' customer participation in brand communities. Consequently, we posit that:

**H1:** SNS participation motivation positively influences customer participation in the brand community on social media.

### *3.2 Customer participation in SNSs' brand communities and brand trust*

The concept of trust has received greater attention for a number of different academic disciplines researchers, for instance, psychology (Deutsch, 1962), political science (Barber, 1983), sociology (Gambetta, 1988), organisation behaviour (Kramer, 1999), and many others (Connolly and Bannister, 2007). In the literature of marketing, studies concerning the precursors of trust are conflicting and require further investigation (Sichtmann, 2007). Trust in a virtual environment signifies "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trust, irrespective of the ability to monitor or control that other party" (Mayer et al., 1995). According to Morgan and Hunt (1994), trust can be defined as "when one party has confidence in an exchange partner's reliability and integrity".

Ha and Perks (2005) defined brand trust as customers' secure confidence that a particular brand will act in the way expected by customers. Brand trust is created by customers' positive experiences with products and services of a company over time (Garbarino and Johnson, 1999). A customer's regular positive contact with a company's brand enables them to be more confident that a specific brand will always meet or beat their expectation level (Deighton, 1992). Customers' participation in a community may assist in the exchange of information along with customer-brand communication, and therefore contributes towards brand trust formation (Flavián and Guinalú, 2006). Additionally, brand trust is considered as a key element to take a better decision when more perceived risks are associated with products purchased (Hess and Story, 2005). Customers are mainly in search of a reliable brand to keep away from the intrinsic threat of services (Delgado-



Ballester and Munuera-Alemán, 2001). Online brand communities afford trusted, special and straight connections with the brand and can develop trust from others' experience (Drury, 2008).

Morgan and Hunt (1994) argued that value sharing and continuous communication is required to create trust between a brand and its customers. Park (2002) found that interactive participation from actively engaged customers in an online environment leads to an increase in trust among them. As such, a trust-based relationship is created with participatory activities and active communication of customers and the brand of a company. Various companies nowadays, such as Pepsi, engage customers by providing them with a chance to participate in their advertising as their interaction results in the creation of emotional bonds and encourages commitment and trust between brand and customer (Sashi, 2012). Recently a number of authors have supported the notion that customers of online brand communities have a tendency to depict trust and loyalty towards brands (So et al., 2014). The researcher also argued in this study that if a company provides a chance to participate, this can result in interactions, which if satisfying may lead to increased trust as customers have more faith in information provided by other customers instead of the company itself (Dabholkar and Sheng, 2012). Thus, we propose the following:

**H2:** Customer participation in the social media brand community positively influences brand trust.

### *3.3 Customer participation in SNSs' brand communities and brand loyalty*

Loyalty has been defined as “repeat purchasing frequency or relative volume of same-brand purchasing” (Oliver, 1999). Newman and Werbel (1973) defined loyal customers as those “who rebought a brand, considered only that brand, and did no brand-related information seeking”.

Jones and Taylor (2007) described attitudinal loyalty as “a consumer's identification with a particular service provider and preference of a product or service over alternatives”. A behaviourally loyal customer prefers to repurchase the same brand and thus become loyal to a particular service provider (Jones and Taylor, 2007).

Various researchers have confirmed that participation in the online brand community leads to customer loyalty towards the brand (Algesheimer et al., 2005; Casalo et al., 2007; Kamboj and Rahman, 2016). Additionally, several scholars have suggested that one of the key consequences of participation in online communities may be brand loyalty (Kang et al., 2014), specifically on social media (Habibi et al., 2014; Laroche et al., 2013). For

instance, McAlexander et al. (2002) found that participation in the online community resulted in consumer identification and loyalty towards the brand.

Once customers in online brand communities start to participate actively, their commitment and emotions attached to the brand may increase (Algesheimer et al., 2005). These emotional attachments emerge as an outcome of customer interactions with community members and are concerned with the issues associated with that brand. Thus, all these result in a high level of customer loyalty towards a brand in online brand communities (Koh and Kim, 2004). Accordingly, we propose the following:

**H3:** Customer participation in the social media brand community positively influences brand loyalty.

### *3.4 Brand trust and brand loyalty*

From a marketing perspective, various scholars have studied trust as the main antecedent of loyalty (Casalo et al., 2007) and an important factor in building customers' relationships (Morgan and Hunt, 1994). Loyalty as a significant outcome of trust is motivated by the fact that trust provides assurance of reliable and trustworthy behaviour of parties in future and will continue to acquire advantages from that relationship (Pizzutti and Fernandes, 2006). Jarvenpaa et al. (2000) highlighted the connection between trust and loyalty and suggested that a high level of customers' trust results in purchase intentions. Similarly, numerous researchers' show that brand loyalty is associated with brand trust (Casalo et al., 2007). Indeed, Lau and Lee (1999) investigated the association between trust and loyalty and found a significant effect. In the same manner, Chaudhuri and Holbrook (2001) also provided support to reveal a positive link between trust and loyalty.

Additionally, trust also encourages loyalty as trust reduces the relationship insecurity with a brand. Similarly, Delgado-Ballester et al. (2001) advocated that less insecurity will result in more purchase intentions because customers want to reduce their perceived risk while purchasing a product. Therefore, it is significant to know that the influence of trust on loyalty can be greater in the context of the online environment, as customers perceive themselves to be less secure when transactions are performed via the Internet. Based on all of the above, we hypothesise:

**H4:** Brand trust in the social media brand community positively influences brand loyalty.

### *3.5 Brand trust, brand loyalty, and branding co-creation*

Recently, brand management has shifted from product differentiation (Aaker, 1996) to new viewpoints, which incorporate “service brands” (Berry, 2000) and “corporate brands” (Balmer and Gray, 2003). Thus, the emergence of this new perspective considers the brands as “social processes” and may involve several stakeholders in branding. The urge for understanding regarding how the brand is co-created collectively with the stakeholders is growing rapidly (Frow and Payne, 2011). Similarly, Merz et al. (2009) suggested that there is a need to build a model of brand value co-creation, which may be used in various settings.

In the context of branding, the concept of co-creation develops to hold other stakeholders with customers. Merz and Vargo (2009) calling the co-creation as “a new brand logic”. In the meantime, Ind and Bjerke(2007) discussed the participation of stakeholder in co-creation of the brand as a key issue for brand governance, mainly as it means that companies can manage their own brands with their stakeholders. Vallaster and von Wallpach (2013) suggested that brand studies growingly identify the active role of customers in branding co-creation meaning and the significance of social media supporting customers in their co-creation activities.

Payne et al. (2009) and Hajli et al. (2017) looked at how branding co-creation occurs in a social media context. A few antecedents such as participation in brand community, quality of relationship, i.e. commitment, word of mouth, satisfaction, trust, and loyalty influence branding co-creation. Additionally, there are a few outcomes of branding co-creation. These are: how co-creation influences customers’ perceptions of the brand, the neglect, and the importance of brand knowledge as a consequence of co-creation (Brodie et al., 2006). A few practical examples of branding co-creation in India and in an international context are: Tanishq (Sarmah and Rahman, 2017), Pepsi (Yadav et al., 2016), Coca-Cola, and Heineken ([www.innovationmanagement](http://www.innovationmanagement)).

The power of social media assists companies in building customer relationships along with developing brand communities, so that customers can interact, communicate, and share their views about the brand. Prior studies revealed that ideas of branding co-creation had been emphasised in the context of social media (Gensler et al. 2013). Indeed, Gensler et al. (2013) highlighted brand management in social media. They demonstrated that increasing use of social media supports customers’ interactions in online communities and facilitates customers to share brand stories in

the community and to co-create brands with others. Thus, the brand building can be accelerated via customers' interactions on social media (Pentina et al. 2013; Vargo and Lusch, 2004).

Trust is a precondition of value co-creation (Abela and Murphy, 2008). Social media is a platform to co-create value with customers (See-To and Ho, 2014). A company establishes brand pages on social media for their products and services and shares information about its new offerings as input for co-creation of the brand. If no customers use and view social media brand pages, these pages will have no value. Thus, customers use the brand pages on social media to acquire product-related information and provide their suggestions in the form of comments, and consequently they will co-create the brand (Hajli et al., 2017). Similarly, from the company's viewpoint, customers participate in social media brand pages via posting and viewing comments regarding the brand, and they facilitate the company to have an opportunity to remain in touch with their customers, and to improve their services and products based on their feedback in the form of comments (See-To and Ho, 2014). Research has confirmed that a high-quality active relation with the customer would increase the possibility of more customer interactions and result in the building of brand loyalty (Fournier, 1998). Customers with high loyalty are certain to contribute towards a brand and cultivate stability with the brand. Accordingly, the following hypotheses are proposed:

**H5:** Brand trust in the social media brand community positively influences branding co-creation.

**H6:** Brand loyalty in the social media brand community positively influences branding co-creation.

### *3.6 Brand trust as a mediator*

Relationship marketing reveals that influences of behaviours on outcomes are generally mediated via satisfaction, commitment, and trust (Palmatier et al., 2006). Thus, the researcher here assumes that in the SNSs' brand community, the effect of customer participation on brand loyalty is indirectly influenced via a mediating variable.

Palmatier et al.'s study (2006) reveals customers' communication and interaction tendencies have more influence on trust. Moreover, they also observed that different relational mediators have different levels of explanatory power across different groups of customers. Trust is generally defined as when an individual has some assurance over another person's integrity and reliability (Morgan and Hunt, 1994). As this research examines the customer-brand relationship,

the mediator variable also reveals the trust of a customer for a particular brand. Thus, based on the above, we posit:

**H7:** Brand trust mediates the relationship between customer participation in SNSs' brand communities and brand loyalty.

### *3.7 Control variables*

To assess the proposed research model, we used descriptive statistic variables as the control variables. Previous studies have also supported the influence of age and gender on physiology and individual behaviour (Levenson et al., 1994). Thus, these attributes are supposed to have an effect on the customer's brand relationship within a community. Consequently, this paper explicitly controls the direct influence of age and gender on customer-brand relationships including brand trust, brand loyalty, and branding co-creation by customers.

In the literature, a few control variables are described (e.g., moderators) which are not usually influenced by the company. Some of the factors, either qualitative such as race, gender, class, sex or quantitative like level of reward, are considered statistically by their impact on the level of the relationship between two variables i.e. independent and dependent (Baron and Kenny, 1986). Additionally, a few factors such as user characteristics and social factors cannot be controlled by the company. User characteristics refer to demographic variables, user personality, and cultural differences (Ngai et al., 2015).

However, a company can always check how the brand has changed or not due to something that happens between users/consumers, which is not controlled or influenced by the company brand communities in social media. Brand communities in social media are backed by the free exchange of information through both the Internet and social media. This means free flow of information via both social media and internet. Each customer is furnished with the instruments for thorough investigation regarding a brand. Instead of having to rely on the statement of producers, advertising firms, sellers or a magazine review, a sponsoring company of a brand community page can simply look to their social networks to see what people think and do modifications as far as to solve the problem and create value for customers (Singh, and Sonnenburg, 2012).

## **4. Methodology**

### *4.1 Measurement development*

Motivations for participating on SNSs such as Facebook and Twitter include building interpersonal relationships, brand likeability, entertainment, information seeking, and incentives (Alhabash et al., 2012; Muntinga et al., 2011). According to Chae and Ko (2016), relationship-building refers to “individuals’ use of SNS to more easily connect with people and to better maintain their connections”. According to Nguyen et al. (2013), brand likeability is defined as “a brand strategy based on attractiveness, credibility, and expertise in order to create attachment and love by delivering beneficial outcomes for consumers and brands alike”.

According to Chae and Ko (2016), entertainment refers to “use of SNS to fill time, derive hedonistic pleasure, relax, and have fun”. According to Kang et al. (2014), “Incentives are offered as a part of special treatment or individualized services”. According to Chae and Ko (2016), information-seeking refers to “quests to acquire information that satisfies curiosity, fulfills general interests, and explains current news and cultural events”. SNSs’ participation motivations were measured using seventeen items borrowed from Chae et al. (2015), Chae and Ko (2016), and Sung et al. (2010).

According to Chae and Ko (2016), customer participation on social media is known as “customer social participation”(CSP) and they define it as, “an effort to achieve co-creation of values through required but voluntary interactive participation of the customers in service production and delivery process in social media”. Following Kamboj and Rahman (2017),customer participation in social media brand communities was measured using nine items.

According to Delgado-Ballester (2001), brand trust is defined as, “Feeling of security held by the consumer in his/her interaction with the brand, that it is based on the perceptions that the brand is reliable and responsible for the interests and welfare of the consumer”. Three items from Chaudhuri and Holbrook (2001),and Laroche et al. (2012, 2013),were adapted to measure brand trust.

Oliver (1999) defines brand loyalty as, “a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior”. Three items are borrowed from Laroche et al. (2012, 2013) to measure brand loyalty. Hajli et al. (2017) define branding co-creation as, “the process of

branding with customers in an online environment, as opposed to pairing two or more branded products (constituent brands) to form a separate and unique product (composite brand)". The three items for branding co-creation were adopted from the study of Wang and Hajli (2014).

All adapted items were presented on a seven-point Likert-type scale with "Agree–Disagree" anchor statements (see appendix 1). By following Mohsin and Lockyer (2010), a structured questionnaire was developed for this study. The survey instrument was pre-tested to confirm both its reliability and validity. Thus, to ensure that the survey instrument was consistent, expert opinion was taken, and a pilot study was conducted. The expert panel consisted of five members (two professors with an area of interest in social media marketing, consumer behaviour and brand management, and three associate or assistant professors with an area of interest in social media marketing, co-creation, and branding). All experts had more than three years of experience in their respective fields. The pilot study was conducted with 35 students (senior doctoral fellows) from a large university; all fellow students were social media users and were the members of any brand community on social media sites. Most of them commented that the instrument was easy to read and understand while some suggested that statements should be more specific. Thus, some wording in the statements was changed according to their comments.

#### *4.2 Data collection and sample*

The data were collected through questionnaire survey from a large university in India. To ensure the eligibility of respondents, initially, they were asked whether they have an account on any social media site (Facebook, Twitter, etc.) and whether they have ever subscribed to, liked, or joined any online community's brand page using any SNS. The questionnaire was given only to the eligible respondents. This was done with the objective of observing the behaviour of respondents irrespective of their membership in SNSs' brand communities. The present paper considered students as the target population as nowadays students are 'tech-savvy' (Nadeem et al., 2015) have greater access to the Internet (Bolton et al., 2013); and in this way they contribute as a key demographic of SNSs (Burbary, 2011), particularly in participating in online brand communities on social media (Kamboj and Rahman, 2016).

Prior to offering the survey instrument to the students, they were provided with a brief understanding of social media brand communities. The majority of online brand communities liked or followed by respondents on social media sites were related to travel and hospitality, e-

commerce, mobile, airlines, and food and beverages brands. The online communities' brand pages liked were Make My Trip (17%), Reliance Jio (15%), Jet Airways (13%), Flipkart (13%), Samsung (11%), Microsoft (9%), Amazon (8%), Air India (5%), Café Coffee Day (5%), and Pizza Hut (4%).

The overall sample (n= 407) included 59% (239) male and 41% (168) female participants. Of the 407, 45% (182) participants were between the age group of 18–24 years, 41% (167) between 25–30 years and 12% (49) between 31–40 years and rest were above 40 years. 67% (274) of respondents were enrolled on an undergraduate course, 33% (104) were on Master's courses, and the rest were above Master's courses. Among all SNSs, the majority of respondents, 84% (342), were using Facebook, 7% (27) Twitter, 5% (19) LinkedIn, 2% (9) YouTube, 1% (5) Instagram and the rest were using any other site. Table 1 exhibits the details about respondents' demographic profile.

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Insert Table 1: Demographics of the survey respondents  
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The survey comprises three parts: initial screening questions, the 35 items with two other questions, one probing respondents (“Which social networking site do you usually use?”, “How much time do you spend on social networking sites?” etc.), and others related to their demographic profile. A total of 750 questionnaires were circulated among students and 407 usable responses were obtained, with a response rate of 54% that fulfilled the general range for using “structural equation modeling (SEM; in which 5-10 per item ratio is suggested; Bollen, 1989)”. Hair et al. (2002) also suggested a 10:1 ratio (sample to item) is required for the multivariate data analysis. For this study, the sample size was above the minimum required ratio i.e. 10:1. The non-response biases were tested as well as compared to “early” and “late” responses of respondents based on the date of the received replies to the questionnaire (Armstrong and Overton, 1977). Further, to apply the t-test (sample mean comparison), the first fifty responses were compared with the last fifty and thus, the independent sample of the t-test displayed an insignificant difference between these two groups, implying no case of unit non-response bias with the collected data.

## **5. Data analysis and results**

### *5.1 Common methods variance tests*



The problem of common methods variance may exist, as a single respondent fills all items in the questionnaire. Thus, to exclude the common methods variance problem, as well as to ensure the confidentiality and anonymity of respondents, we also employ two methods to test the collected data. First, this study employs “Harman’s single-factor test” to examine the single factor’s variance proportion (Podsakoff et al., 2003). The findings suggested that a single factor was responsible for only 36% of the variance, which was less than 50% (Podsakoff et al., 2003). We also examined the “common method bias problem” by using “common factor analysis” (Sanchez and Brock, 1996). The fit indices of the model were significantly worse ( $\chi^2/df = 5.06$ , the goodness of fit index (GFI) 0.84, comparative fit index (AGFI) 0.82, root mean square error of approximation (RMSEA) 0.08), and unacceptable compared to the actual measurement model. This test also indicated that the common method bias problem was small. Hence, the possibility of the common method bias problem did not exist in the present study.

### *5.2 Hypotheses Testing*

The present study used “structural equation modeling (SEM)” to examine the hypotheses (Figure 1), through AMOS version 20. SEM integrates the aspects of multiple regression analysis and factor analysis. Such integration enables the testing of a series of interrelated relations between measured variables and latent constructs, and among latent constructs (see Hair et al., 2010).

### *5.3 Measurement Model*

This study established the “validity” and “reliability” of measurement items prior to the testing of hypotheses. The reliability statistic (Cronbach’s alpha) of each construct was checked to set up the internal consistency of the employed constructs. It has been found that the constructs hold the standardised limit of alpha (i.e., 0.70) (Hair et al., 2010). Convergent validity was tested using factor loadings, their composite reliability (CR), and average variance extracted (AVE). Each item upheld the recommended factor loading criteria, i.e., above 0.70 ( $p < 0.001$ ). The “composite reliability” of every construct met the minimum standard value of 0.70 (Bagozzi and Yi, 1988) and was valued between 0.76 to 0.96 (see Table 2). The average variance extracted (AVE) of all constructs exceeded the threshold limit of 0.50 (Fornell and Larcker, 1981; Hair et al., 2010) and was valued between 0.84 to 0.90 (see Table 2), hence, convergent validity was established.

To establish discriminant validity, this research followed Fornell and Larcker’s (1981) study using four criteria: (i) comparison of “average variance extracted” (AVE) with “Average Shared Variance (ASV)”, (ii) comparison of AVE with “Maximum Shared Variance (MSV)”, (iii) assessment of inter-construct correlations, and (iv) comparison of AVE with squared correlation. Discriminant validity is considered to be achieved when the value of AVE is greater than ASV as well as MSV (Fornell and Larcker, 1981). Next, the value of the “square root of AVE” needs to be above inter-construct correlations (Fornell and Larcker, 1981) or the inter-construct correlation is less than 0.85 (Kline, 2005). Finally, Fornell and Larcker (1981) suggested an additional vigorous method for measuring “discriminant validity” i.e. considering the “squared correlation” between the two constructs, and it should be less than the AVE for every construct.

Table 2 shows that for all constructs the value of AVE is more than MSV as well as ASV. Similarly in Table 3 the inter-construct correlations are described, which shows that when diagonal the “square root of AVE” (0.687, 0.722, 0.928, 0.929, 0.945) of all constructs is above the values of “inter-construct correlations”. In other words, the discriminant validity of measurement model was examined by assessing the significance value for inter-construct correlation. The value was found to be lower than one (Bagozzi and Heatherton, 1994). Therefore, in the study all conditions were fulfilled for discriminant validity, and there are no concerns about it (see Table 2 and Table 3).

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 Insert Table 2: Test results of internal reliability and validity  
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The model fit was first checked using the  $\chi^2$  statistic, a traditional measure for evaluating the overall model fit. However, the  $\chi^2$  test is not a reliable indicator. Hooper et al. (2008) referred to the  $\chi^2$  statistic as the “lack of fit” or “badness of fit”. The present study looked at the values of the GFI, CFI, NFI, IFI, RFI, TLI, and RMSEA for the assessment of structural model fit. Thus, the values of GFI, CFI, NFI, IFI, RFI, and TLI should be greater than 0.90, and the RMSEA value should range from 0.05 to 0.08 (Hu and Bentler, 1999). Analysis indicated that the hypothesised model comprised a good model fit ( $\chi^2 = 1555$ ,  $df = 542$ ,  $GFI = 0.91$ ,  $IFI = 0.95$ ,  $CFI = 0.95$ ,  $TLI = 0.94$ ,  $NFI = 0.92$ ,  $RFI = 0.91$ , and  $RMSEA = 0.06$ ).

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 Insert Table 3: Descriptive statistics and correlation among constructs  
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#### 5.4 Structural Model

The present study employed  $\beta$  values or “standardized path coefficients”, t values, and p values to examine the hypotheses mentioned in the proposed model (i.e., Figure 1). Results indicated that SNSs’ participation motivations significantly influence customer participation in brand communities on social media ( $\beta = 0.538$ ,  $t = 6.97$ ,  $p < 0.001$ ), thereby supporting H1. Results also suggested that SNSs’ customer participation in brand communities had a significant impact on both its outcomes for brand trust ( $\beta = 0.236$ ,  $t = 4.04$ ,  $p < 0.001$ ) and brand loyalty ( $\beta = 0.349$ ,  $t = 5.98$ ,  $p < 0.001$ ), thereby supporting H2 and H3 (see Figure 2). The findings also indicated that brand trust had a significantly positive effect on both brand loyalty ( $\beta = 0.261$ ,  $t = 5.46$ ,  $p < 0.001$ ) and branding co-creation ( $\beta = 0.241$ ,  $t = 4.79$ ,  $p < 0.001$ ), thus supporting H4 and H5 (see Table 4, Figure 2). The results depicted that brand loyalty also have a significantly positive effect on branding co-creation ( $\beta = 0.225$ ,  $t = 4.41$ ,  $p < 0.001$ ), therefore supporting H6.

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Insert Figure 2: Structural equation modelling results  
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Bollen (1989) recommended that for the normed chi-square ( $\chi^2/df$ ), a standardised limit less than 3.0 is considered a reasonable fit. As proposed by Hu and Bentler (1999), an RMSEA value of 0.06 also shows a close fit. Similarly, the value of RMSEA between 0.06–0.08 signifies an acceptable fit, and between 0.08–0.10 indicates a mediocre fit. For the CFI, the “rule of thumb” is that a value of more than 0.90 shows an acceptable fit and a value more than 0.95 indicates a close fit to the model (Hu and Bentler, 1999). The model fit indices for the structural model falls within acceptable limits (CMIN/DF = 2.84, CFI = 0.94, RFI = 0.91, GFI = 0.92, TLI = 0.93, NFI = 0.91, IFI = 0.94). Similarly, the value of RMSEA specified that the structural model has an acceptable fit with RMSEA = 0.06, 90 percent CI = 0.061–0.086 (Hu and Bentler, 1999) confirming that the structural model fits well (See Table 4).

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Insert Table 4: Hypotheses testing results  
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#### 5.5 Mediating role of brand trust

In this paper, mediation analysis was carried out to decide whether brand trust acts as a mediator between the SNSs’ customer participation in brand communities and brand loyalty. This study performs the bootstrap method using SEM in AMOS for assessing mediation analysis. The reason

behind using the bootstrap method was to overcome some key problems related with Baron and Kenny's (1986) approach and the Sobel test for mediation, as this approach is unable to clarify and present a statistical test for indirect effects. In addition, a number of researchers are also using the Sobel test to investigate the mediation analysis. The researcher used a bootstrap method instead of this Sobel test, as this test in the case of small samples is based on the undefined assumption of normality and results in the possibility of Type I error (Preacher and Hayes, 2004). Additionally, Mackinnon et al. (2004) tested the indirect effect of an "exogenous variable" on an "endogenous variable" via a mediating variable, and they declared that at the time of assessing the significance of the indirect effect, the standard error problem surfaced. Consequently, Shrout and Bolger (2002) suggested that this bootstrap method resolve the problem of standard error. Moreover, the bootstrap method also allowed an empirical investigation to determine statistical estimates' significance (Efron and Tibshirani, 1993), where results will reveal mean indirect effects' significance at 95% confidence interval.

Ho (2014) suggested determining the mediating effect as a significant aspect in path modelling. Thus, researchers in place of using the Ordinary Least Squares method in SPSS prefer the use of SEM in AMOS using "Maximum Likelihood Estimation", to explore the level and direction of the indirect and direct effects that a variable has on another, as proposed in the hypotheses. In a bootstrap method, firstly, using replacement procedure, a random sampling was used to generate 1000 samples from the original dataset (Shrout and Bolger, 2002). Then the mediation effect was tested using bootstrap method to create 1000 estimates of every path coefficient. Next, the indirect effect of a predictor variable was evaluated via the output from 1000 estimates of every path coefficient.

In the bootstrap method, three effects ("direct effect, indirect effect, and total effect") examined the mediating variable's effect. Table 5 displays the findings regarding mediation analysis. The results of SEM with brand trust as a mediator are presented in Table 5. The model fit values for mediation model are as follows:  $\chi^2 = 239$ ,  $df = 84$ ,  $GFI = 0.93$ ,  $AGFI = 0.90$ ,  $CFI = 0.98$ ,  $NFI = 0.97$ ,  $RFI = 0.96$ ,  $IFI = 0.98$ ,  $TLI = 0.97$ , and  $RMSEA = 0.06$ . The overall findings of mediation analysis using bootstrap point out that brand trust acts as a mediator between the aforementioned relationships. The direct effect of the hypothesised path of SNSs' customer participation in brand communities to brand loyalty has a significant value at 0.001 level of significance. Similarly, the indirect effect of the proposed hypothesised path was also found to be

significant. As revealed by Table 5, brand trust in this study contributed as a partial mediator between customer participation in social media brand communities and brand loyalty. The partial mediating effect of brand trust indicates that despite CSP, brand trust depends upon their level of participation. It means that if the customer is not involved or participating at a high level, then the possibility of brand trust would be less. Thus, both the direct and indirect effect has significant value, which depicts that customer participation in social media brand communities has a direct impact on brand loyalty and also has an indirect impact via brand trust. Thus, the significance of the direct and indirect effect leads to the confirmation of brand trust as a partial mediator (Table 5).

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Insert Table 5: Bootstrap Analysis – Mediating Effect of Brand Trust  
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## **6. Discussion and implications**

A number of past studies have already highlighted the influence of customer online participation on brand and customer-related outcomes in the social media domain (Lin et al., 2014; Luo et al., 2015), thereby recognising community participation and contribution to the content as two main facets of customer participation on social media.

During the past few years, a number of studies have investigated how customer online participation influences brand and customer-related outcomes in the social media domain (Lin et al., 2014; Luo et al., 2015). Thus, based on previous literature, two main facets have been recognised as customer participation on social media; first, “community participation”, which means community members’ online communication, for instance, participating in the administration of media and holding or joining activities in the community (Xu and Li, 2015). Second, contribution to the content, which refers to community members’ voluntary contribution in generating content such as videos, posts, photos, and any other (Kang et al., 2007; Nambisan and Baron, 2009).

The present paper has tested the effects of social-media-based participation motivations (building interpersonal relations, entertainment, brand likeability, information seeking and incentives) on SNSs’ customer participation and the subsequent effect of customer participation on brand trust, brand loyalty, and branding co-creation. Thus, cumulatively, SNSs’ participation motivations positively influence customer participation in SNSs’ brand communities, and in turn

have a strong positive impact on brand trust and brand loyalty. Given that the literature explaining customer participation in SNSs' brand communities through "Stimulus-Organism-response framework" is scarce, and cumulative impacts of SNSs' participation motivations on customer participation in SNSs' brand communities using S-O-R framework is almost absent.

The findings support all seven hypotheses. SNS participation motivation leads to CSP in brand communities (H1); this result is in line with the earlier studies that have identified motivations as significant factors to participate in SNSs' communities (e.g., Chae and Ko, 2016). A study conducted by Hajli et al. (2017) has suggested that the social participation of customers with their preferred brands in online brand communities assists in developing relationship quality in term of trust, loyalty, and enhancing customer-brand relationships, but such assertions have not been tested empirically, especially in social-media-based brand communities. The present research empirically establishes the association that CSP in online brand communities resulted in brand trust, brand loyalty, which lead to branding co-creation on social media in brand communities. This is a significant contribution of this paper.

Another finding of this study is that CSP in brand communities leads to brand trust (H2) and brand loyalty (H3) and further that brand trust positively and significantly influences brand loyalty (H4). The findings are consistent with those of Chae and Ko (2016), Kang et al. (2014), and Laroche et al. (2012, 2013). Thus, brand managers may capitalise on this finding and strive to build superior trust among customers and develop brand loyalty towards their brands, which might, in turn, lead to co-creation of brand by customers. Interestingly, the effect of CSP in brand communities on brand trust was found to be weaker than its effect on brand loyalty. Laroche et al. (2012) did not observe any direct effect of community participation and social networking on brand loyalty for social media brand communities. They did, however, confirm that community participation indirectly affects brand loyalty via brand trust. This study establishes a direct link between brand trust and brand loyalty in the context of brand communities on social media. This difference in results may form an area of further research as also suggested by Kang et al. (2014).

One of the findings of our study is that both brand trust and brand loyalty significantly affect branding co-creation (H5) and (H6). This finding is also consistent with the previous literature (see Hajli et al., 2017). Further, this paper found that the relationship between CSP and brand loyalty is mediated by brand trust (H7). This result is consistent with existing research that acknowledges brand trust as a mediator between SNSs' customer participation in brand

communities and brand commitment (Kang et al., 2014). Jacoby and Kyner (1973) suggested that brand loyalty is of two types: attitudinal and behavioural. Attitudinal loyalty means a commitment of customers or their preferences when taking into account distinctive values connected with the brand they go for (Chaudhuri and Holbrook, 2001). Lastly, this study confirms the positive and significant effect of both brand trust and brand loyalty on branding co-creation. Hajli et al. (2017) in their work have proposed a relationship between trust, loyalty and branding co-creation, but have not empirically tested their assertions. Therefore, this is the novel contribution of the present study to the existing body of literature in the area of brand management, online brand communities and social media, as this study examines this in the context of the S-O-R framework.

Exploring the role of age and gender assists marketers to decide if they require particular strategies for males and females based on gender or age. The findings related to control variables used in this study reveal that the influence of CSP in social media brand communities on brand trust, brand loyalty, and branding co-creation is inconsistent across male and female members. The results show that branding co-creation is highly dependent on gender. Therefore, “co-creation” does not only depend on brand trust and loyalty, but also on gender. This finding is inconsistent with the prior study by Hajli et al. (2017) which stated that branding co-creation is the result of brand trust and brand loyalty. Similarly, brand trust is not only dependent on customer participation in social media brand communities, but also highly dependent on gender. This finding is inconsistent with the prior study by Kang et al. (2014) which found that customer participation in social media brand communities has an impact on brand trust, which is dependent on gender. Brand loyalty is found to be highly dependent on age, which reveals that brand loyalty not only depends on customer participation in brand communities on social media, but also on the age of community members. The finding of this study is inconsistent with Nadeem et al.’s (2015) study, which depicted that in the online environment (e.g., social media) the gender gap is declining. The finding offers important practical and theoretical implications as gender analysis in the context of brand communities on social media is in an initial stage (Nadeem et al., 2015). This finding suggests that marketers need not perform gender-based segmentation in their brand communities on social media to achieve brand loyalty.

Thus, we advance the present social-media-based branding co-creation literature by developing and empirically testing a novel model for branding co-creation via customers’

participation in SNSs' brand communities, considering brand trust as a mediator and age and gender as control variables.

### *6.1 Theoretical implications*

This study makes several contributions to the body of knowledge.

In the present study, we consider a multidisciplinary perspective with several different theories from information systems, IT (social media), marketing (branding, relationship marketing), and consumer behaviour (co-creation). Thus, by applying multiple perspectives we assisted in setting up a conceptual background for the concept "branding co-creation" via social media platforms with an S-O-R framework. Another implication is the use of the co-creation concept with branding. More research is required to develop the co-creation process via social media.

This study has tested the possible effects of factors (building interpersonal relations, entertainment, brand likeability, information seeking and incentives) on customer participation and the subsequent effect of customer participation on brand trust, brand loyalty, and branding co-creation. At the cumulative level, each of the motivations positively influences customer participation, with building interpersonal relations, entertainment, and brand likeability bearing the strongest influence. Customer participation also has a strong positive impact on brand trust and brand loyalty. Given that the literature to explain customer participation in online brand communities through the S-O-R framework is sparse, and the joint impacts of brand community participation motivations on customer participation in social-media-based brand communities is almost absent, present research adds to the extant literature by proposing and empirically validating a novel model for participating customers with online brand communities on social media, taking into account the mediating role of brand trust. Finally, with the emerging data on countries such as India, this study verifies customer participation with the latest viewpoints, such as branding co-creation, and social media strengthens the usage of these concepts across cultures.

### *6.2 Practical implications*

This study finding has various implications for marketing, brand management, social media practices, and for managers.

First, the study reveals that customers' participation in social media brand communities exerts significant influence on brand trust, brand loyalty, and in turn on branding co-creation.



Consequently, for joint co-creation of brands with customers, managers should actively manage their own brand community on social media.

Second, managers may create and nurture participatory customer base by accumulating knowledge and information about consumer behaviour in social media brand communities (Nadeem et al., 2015; Wu et al., 2015).

Third, to co-create with brand community users, managers can offer incentives (e.g., rewards, discounts, privileges) to those who post interesting messages or valuable suggestions and share photos or videos of their positive experience related to the firms' offerings on social media.

Finally, the present paper's findings will enable managers to assist companies in understanding how a variety of motivation factors influence users' social media participation and what context is important in online brand communities.

## **7. Limitations and future research**

The present research has a number of limitations.

First, this research is conducted on a 'general' sample, which includes social media users. In other words, respondents might be using various different social media platforms, and in relation to a variety of brands. It is necessary to further extend the results of this paper in the context of specific brand and industry, for instance, travel and tourism, banking, and e-commerce services etc., to confirm the external validity of the present research.

Second, future studies could investigate the effect of customer participation in SNSs' brand communities on other constructs such as brand image, brand equity, and brand attachment etc. with some other set of antecedents.

Third, another avenue for future research is to examine the dynamics of SNSs' brand communities. For instance, the consequences of value creation develop with time (Schau et al., 2009). Thus, in future, longitudinal research will enable scholars to understand the changes in the social media community and assist them in comparing the findings at different times.

Fourth, the present research considers both SNSs' participation motivations and customer participation in social media brand communities as composite measures, though they are multidimensional constructs. Examining the effect of each participation motivation (building interpersonal relationships, information seeking, entertainment, brand likeability, and incentives)

on customer participation in the social media brand communities (informational, attitudinal, and actionable) dimension could be more helpful.

Fifth, in this study, all social media platforms were considered while collecting the responses of the respondents. Thus, for further research, there is scope to consider the response of respondents within some specific boundary such as restricting the analysis to the use of Facebook or any other particular social media site.

Finally, this paper investigated brand trust as a mediating variable; further studies could assess the mediating as well as moderating effect of some other variables in the hypothesised model. A possible number of potential mediators and moderators, such as culture, community type, brand type, differences in social networking platforms features and facilities or functionality, structure, and culture (Kietzmann et al., 2011; Laroche et al., 2012), could be examined to give more insights into how these relationships vary in different situations. In addition to these, some more moderating effects, for example, brand involvement, interaction experience and customers' interactivity (Bruhn et al., 2014), and interaction propensity (Wiertz and de Ruyter, 2007), which may moderate participation intentions of online community members, will be attractive to explore.

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