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MARKETING | RESEARCH ARTICLE

The impact of social media on consumer-brand loyalty: A mediating role of online based-brand community

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Abstract: This paper aims at examining the mediating role of online based-brand community (OBBC) through social media platforms (SMP) given the interplay of consumers' purchasing attitude in a virtual space. To do this, an online survey was used to gauge the views of online consumers so as to establish the relationship between social media usage and consumer-brand loyalty (CBL) via the online based-brand community. A total of 122 social media users affiliated to at least one online brand community took part in the survey. The findings generated through the partial least square and structural equation modelling (PLS-SEM) showed that OBBC on the social media platform positively initiates consumer-brand engagement and user-brand relationship. While SMP indirectly stimulates consumer-brand promise and trust (CBPT), towards CBL via OBBC. For the purpose of brand management and the firm's profitability, this paper offered a conceptual model that depicts a connection between SMP and CBL. The managerial implication of this research was to

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PUBLIC INTEREST STATEMENT

The era of digital marketing has come to stay. In view of this, social media channel has become one of the powerful digital marketing communication tools for business and non-business organizations to thrive. However, the widespread use of these social media channels, notably, Facebook, Twitter, Instagram, YouTube, Pinterest, etc. has triggered the creation of a firm's fan page or brand page (referred to as online brand community) to engage both existing and prospective customers. Notwithstanding this, the new marketing face has established a nexus between a customer and a product/brand as well as loyalty regarding consumers' purchase intention. Therefore, this article aims at examining the mediating role of the online based-brand community through social media platforms by taking into consideration the interplay of consumers' purchasing attitude in a virtual space. This Present study offered a conceptual model that depicts a connection between social media platform, online based-brand community, and consumer brand loyalty.

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help practitioners and industry players to harness the usefulness of social media platform in their quest to increase market share in the medium to long-term goals.

Subjects: Marketing Research; Internet / Digital Marketing / e-Marketing; Marketing Communications

Keywords: social media; online based-brand community; consumer-brand promise; consumer-brand engagement; Brand loyalty

1. Introduction

Consumers and marketers have gradually embraced the activities of online based-brand communities (OBBC's) especially using social media as a communication tool (Algesheimer, Dholakia, & Herrmann, 2005; Hutter, Hautz, Dennhardt, & Füller, 2013). In view of this, the marketing of diversified consumer goods has taken a new direction with producers and sellers taking due advantage of the internet space to engage customers and potential users. Additionally, the rapid growth of the internet serves as a driving force for pre-purchase information gathering (Hutter et al., 2013). The work of Adjei, Noble, and Noble (2010) posit that social media based-brand communities have become a communication channel for customer-to-customer (C2C) as well as Business-to-Customer (B2C) dissemination and sharing of product information and experiences. Again, the work of Adjei et al. (2010) further revealed that OBBC serves as a catalyst for retaining both existing and new customers for a product brand. Schröder and Hölzle (2010) observed that firms can easily understand customers through exchanges of ideas in a collective manner, which according to Kozinets (2007), allows owners of brand communities to monitor information exchanges as a way of a building product or brand knowledge. Marketers and researchers are poised to understudy brand communities due to their benefits for business operations. These advantages, according to Muniz and O'guinn (2001), include, influencing member's evaluations and actions, rapid dissemination of information, consumer-brand attachment, consumer-brand relationship establishment, ability to attract new customers, capacity and willingness to study consumer needs and wants among others. Meanwhile, social media indicates a new challenge for marketers and researchers mainly because it shows a new form of the consumer-brand relationship. An appreciable number of firms are investing both financial and material resources into designing strategic ways in managing brand communities on social media for the purpose of gaining customers' attention and fuelling further interactions with them (Coelho, Rita, & Santos, 2018; Laroche, Habibi, Richard, & Sankaranarayanan, 2012). Notwithstanding, these communities contain new marketing research tools that markets and firms can make use of to obtain a pool of information for effective and efficient brand management (Gong, 2018).

It has emerged in recent times that, although many product brands are designed for the same or similar purpose, they are often undifferentiated based on the customer's point of view (Hansen, Kupfer, & Hennig-Thurau, 2018). The proliferation of identical goods in the mass-market makes brand identification for consumer engagement more complex especially among Small and Midsized Enterprises (SME's). Even though works are done by Kozinets (2007), Muniz and O'guinn (2001), and Gong (2018) suggest that the application of social media platforms deepen the marketing communication and advertising strategy regarding new or existing product/brand, their research could not reveal how online based-brand community mediates between social media channels and brand promise towards brand loyalty in general. Indeed, there are insufficient studies exploring the vivid inter-connection and the inter-relationship that exists between social media as a platform, triggering online based-brand community and consumers' purchasing attitude. This to some extent has an impact on consumer purchasing intention and attitude toward brand relationships (Islam & Rahman, 2017).

Therefore, this paper aims at analysing the mediating role of OBBC through social media platforms and its relationship on consumers' purchasing attitudes in the mass-market. Also, due to the growing importance of social media and the inspiration of brand owners to partake in online

interaction, we seek to explore the moderating role of social media on brand community formation (engagement) and the relationship that impacts on consumer purchasing attitude in the same context. The paper establishes the magnitude of consumers' brand trust and loyalty regarding the interconnection of social media (as online platform) and brand-community engagement.

Consequently, this study aims to make both theoretical and practical contributions. First, the findings add to the recent literature gaps in consumer-brand community relationship with consumer-brand promise, and trust as well as consumer-brand loyalty via a social media platform which lag behind in a study of this calibre. This dearth of literature is clearly seen from the interconnection between consumer–brand community, brand promise, as well as consumer–brand loyalty regarding social media platform used within the milieu of brand management literature. Hence, the contribution of this study will enable brand community practitioners and researchers to be well informed and promote discussions on the use of social media as a moderating factor of consumer-brand management. As a matter of fact, the theoretical benefits associated with this study will in no doubt widen the scope of social media marketing from the academic perspective. Second, the paper makes an effort to contribute to managerial recourse by assisting practitioners to transform the consumer-brand community to consumer-brand relationships profitable to them especially, in the medium to long-term goals.

The paper proceeds as follows: literature review and conceptual framework of the study are explained in the immediate section, followed by the research methods and then results. The paper ends with a discussion of the outcomes, study implication for theory and practice and then addressing the research limitations and possible recommendations for future research.

2. Literature review

2.1. Online social media platform
Social media basically refers to online platforms that serve as a vehicle that moderate and mediate the engagement and interaction of persons or group of individuals. The platform makes it necessary to exchange and share ideas, opinions, and grievances on a common mission and vision. It is where new friendships, partnerships, and businesses, and even researchers are established often for ulterior motives (Goh, Heng, & Lin, 2013; Issa & Isaias, 2016).

According to Kaplan and Haenlein (2010), social media is "a group of internet-based applications that builds on the ideological and the technological foundations of web 2.0 and it allows the creation and exchange of user-generated content." Simply, it refers to the online technologies and practices which individuals, organizations and businesses use for the purpose of sharing knowledge and opinions. This definition is affirmed by Wall and Williams 2007; Schröder and Hölzle 2010 who hypothesise that social media is a social aggregation. With this in mind, social media according to the definition cited by Wall and Williams (2007), and Tsimonis and Dimitriadis (2014) emanate from the initial discussions geared towards public opinions within a stipulated time, mostly long enough accompanied by sufficient human feeling, which in turn result in personal relationship within cyberspace. Another plausible explanation of social media usage is that it contains a wider range of internet-based applications but it is mostly affiliated with applications such as YouTube, Facebook, Wikipedia, and Instagram. In spite of the benefits to social media marketers and consumers directly, it is cheaper in its operation and less time consuming (Kaplan & Haenlein, 2010), it influences customer behavior and perception, as well as bringing to together categories of like-minded people (Ernst & Young, 2011).

Again, people who join social media feel belongingness to a class of people with shared norms, values, and interests. Having the feeling of being socially connected is a pivotal element of one's psychological sense of belonging to a community (Voorn & Kommers, 2013). Although it has been criticized by many social media experts that the feeling of social belongingness on online platforms will become weaker mainly due to the absence of physical-presence and lack of

proximity to the community (Laroche et al., 2012). Though, the contribution of social media cannot be overlooked, in that it facilitates the creation and joining of communities to satisfy the need of belongingness, being socially connected and recognized. Hence the social media and community could be described as distinct but interacting variables and must be explored simultaneously (Kaplan & Haenlein, 2010; Laroche et al., 2012). Based on this review, we state the hypothesis that;

H1: Social media positively influence the creation of online based-brand community.

H2: Social media provides promise and trust of the brand to consumers.

2.2. Brand community

A brand community is defined as a unique form of non-geographically bound community, grounded on a uniform set of social relations associated with a particular brand of preference (Muniz & O'guinn, 2001), thus, an indication of a form of association embedded or related to the utilization context around a product or brand. These communities are made up of their partner affiliates and their relationships are known by their commonalities which assist individuals to share important resources (Liao, Yang, Wei, & Guo, 2019). Today, firms recognize the significance of online communities, which involves the ability to engage in effective and efficient communication with customers and thereby obtaining relevant information from them. These communities do not just facilitate communication, but also create linkages with loyal users or beneficiaries (de Vries & Kommers, 2004). In view of this, brand communities have the potential benefit of bringing together customers from all walks of life, leading to initiate conversations which enable them to obtain verifiable information about a brand from different sources (Coelho et al., 2018; McAlexander, Schouten, & Koenig, 2002). Moreover, a study by Ernst & Young (2011), also established that customers could be seen as a valuable source of information usable for managerial decisions in companies. Additionally, existing customers of a given brand could be a reliable source of innovative ideas, which has the tendency to mediate the chain of actions that may lead to brand or product modification. Therefore, with the advent of social media technology, the concept of a brand community is in connection or intertwined with the media. Indeed, it has been ascertained that brands transcend geographically as in the case of media (Muniz & O'guinn, 2001). Again, it cannot be gainsaid that the use of digital devices like phones and tablets brings people closer than before. It is no doubt that social media plays a mediating factor in establishing an environment that holds together existing and potential customers for a business organization (Brown, Broderick, & Lee, 2007). Therefore, the created bondage between customers and the brand helps "brand owners" to foster the relationship without any geographical constraint or hindrance. Consequently, it is vital for marketers and customers to find innovative ways to exploit the advantages of both technology and brand community. Hence, the establishment of an online brand community is relevant.

2.3. Social media-based brand community

The idea of a social media-based brand community involves the combination of both social media and brand community on a digital platform. The concept is a subset of the broader notion of "virtual communities" (Schröder & Hölzle, 2010). Traditionally, communities were formed on the web 1.0 platform, which was mainly on companies' portals, or initiated customers (Rheingold, 1991). However, with the increasing usage of social media, many firms are using social networking sites to assist in the creation of online brand communities. These sites provide users with a sense of freedom and allow them to converse in a different language, topics and issues that support the establishment of the free flow of information (Kaplan & Haenlein, 2010; Muniz & O'guinn, 2001). Henceforth, we propose the hypothesis that;

H2: Online based-brand community positively influences the establishment of consumer-brand engagement.

Today, social media sites such as Facebook and Instagram have proven to be potent competitors to traditional marketing communication tools like advertising and personal sales. With this, marketing of diversified consumer goods has taken a new direction where producers and sellers have taken advantage of this social media to catch the attention of customers and potential users (Tsimonis & Dimitriadis, 2014; Wall & Williams, 2007). Social media based-brand communities that have been established for the aim of sharing or exchanging information rather than a mere commercial purpose has the greatest influence on its members' opinions and purchase intentions. Similarly, the exchanges that linked between the consumers both usual and potential users become deeper towards a given brand (Gong, 2018; Skog, 2005). By doing so, the owner of a brand or the online community has the tendency of creating a brand promise and trust in the online community members' domain. Also, this constant and persistent engagement of consumers of a particular brand has the tendency of establishing customer brand loyalty which is a key marketing instrument for business growth (Akrout & Nagy, 2018). Based on this review we state the hypotheses that;

H3a: Online based-brand community positively predicts consumer-brand engagement.
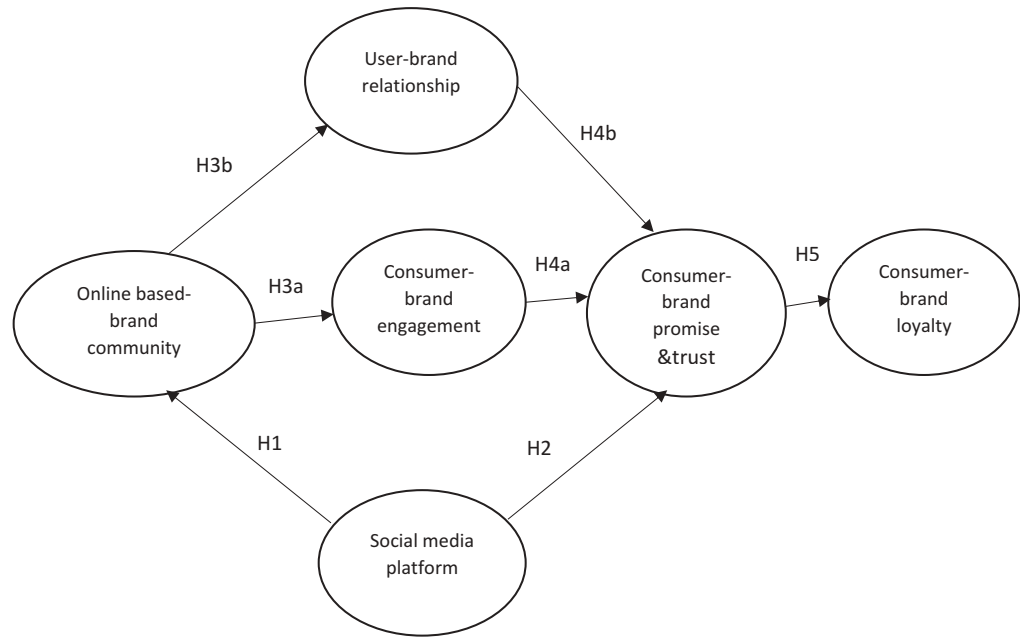
H3b: Online based-brand community positively strengthen the user-brand relationship.

2.4. Consumer's brand promise and trust, and loyalty on the social media platform

Consumers' purchasing attitude is in no doubt a vital measure of the progress of every business organization. This attitudinal feature could be traced from the theory of planned behavior (TPA) (Ajzen, 1985). With this, consumers' purchase intentions, for that matter attitudes of customers are mainly intrinsic factors that shape the behavior of a consumer in the marketing domain. These so-called behaviours could be detected from both traditional and social media marketing which ranges across business-to-business (B2B), business-to-customers (B2C) and even customers-to-customers (C2C) market (Islam, Rahman, & Hollebeek, 2018). Social media space represents a paradigm shift aimed at reaching a larger number of the audience (such as customers) in order to tabulate their views for the marketing decision-making process. Yet again, social media marketing involves a broader space to engage in mass communication that facilitates brand connection with customers on a personal level and also individual groups. The recent research work of Tafesse and Wien (2018) buttress the argument that social media platform has a tendency of influencing consumers mainly due to the brand image and the degree of interaction. Also, this trend of advertising and marketing is rapidly corresponding to the large volume of content been produced by social media platform; hence has a degree to motivate consumer purchase intention (Johnen & Schnittka, 2019). However, brand image has a positive influence on brand promise and brand trust mainly attributed to the consistent and persistent engagement of both customer and brand in the social media space (Zhang & Benyoucef, 2016). This ultimately converts the online based-brand community into consumer brand loyalty which is always considered as an output of a "good brand" (Goh et al., 2013).

Conversely, traditional media-based brand communities have limitations in that, individuals only consume content information passively. This makes it impossible in the traditional media to share and exchange frequent information and ideas for better consumer-brand relationship (Rotman & Preece, 2010). A survey showed that the persistent engagement and exchanging of ideas among individuals in these communities make it necessary for marketers and researchers to tap a pool of knowledge for decision making (Bagozzi & Dholakia, 2002). Going forward, we explore the moderating role of the social media platform and the effect of connectivity of social media based-brand community in relation to the consumers' purchasing attitude, brand trust and loyalty (Kasemsap, 2018). This further explains the fact that online based-brand community brings together the user and the brand in question for a successful engagement and interaction so far as selling and buying are concerned. Therefore, we build on this argument to propose these hypotheses that;

Figure 1. A network of online based-brand community impact on consumer-brand loyalty.

H4a: Consumer-brand engagement on social media directly affects brand promise and trust to consumers.

H4b: User-brand relationship on social media directly affects brand promise and trust to consumers.

H5: consumer-brand promise and trust (CBPT) positively create consumer-brand loyalty (CBL).

2.5. Conceptual framework and hypotheses development

The proposed conceptual model aims at investigating the magnitude of social media impact on the creation and establishment of an online social media based-brand community and its influence on consumers purchasing attitudes in a target market. Figure 1 below illustrates the direct and potential transmission of online social media platforms through a number of empirical constructs towards consumer-brand loyalty given the interplay and mediating role of online based-brand community. Hence the visual representations and the network of the proposed constructs are given in Figure 1. Also see Table 2 for definition of measurement items with respect to their research constructs and literature sourced.

3. Methodology

The paper adopted a quantitative research approach to gain a deeper understanding of consumer engagement in the social media space so far as the online based-brand community is concerned. For the purpose of achieving the aforementioned hypotheses, we first visited web pages of several SME's which had social media plugins connecting the brand on social media. The motivation behind this was to explore the conformity and the existence of online based-brand community as a marketing and adverting tool (Kasemsap, 2018). In view of this, several OBBC's were observed with varied brand community descriptions depending on the product or brand affiliate by both firms and consumers. However, the scope of this study is geared towards the consumers' purchasing attitude given that the OBBC has previously been established in literature. It means that the direction of our empirical study has taken into consideration the holistic viewpoint from the consumer; hence we position consumer behavior in the centre of the study.

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Table 1. Demographic profile of respondents		
Demography	**Frequency**	**Percentage (%)**
Gender	66	53.9
Male	56	46.1
Female		
Age	42	33.7
18–22	29	24.1
23–26	51	41.6
27+		
Education Level	63	51.7
Bachelor	39	31.5
Master's	8	6.7
PhD	12	10.1
Others		
Social media platform engaged	78	64.0
Instagram	113	93.3
Facebook	28	22.5
Twitter	42	33.7
Linked-in	34	38.2
Others		
Average hours spent	19	15.7
Less than 1 hour per day	40	32.6
Between 1 to 3 hours per day	41	33.7
Between 3 to 5 hours per day	22	18.0
5 hours and more		

n = 122, Sources: Authors' survey.

3.1. Survey and data

Regarding the sampling design for this survey, a non-probability sampling technique was employed, specifically the snowball sampling method. It is a type of non-random sampling where research participants recruit other participants for a test or study. It is used where the required participants are difficult to find. In the case of online customers, snowball sampling was deemed fit for this study. According to Etikan, Musa, and Alkassim (2016), these criteria include among others—accessibility, geographical proximity, willingness to participate, participants' accessibility to the researcher, and affordability in terms of cost. In line with these reasons, the survey took place in the Czech Republic, specifically in the South-Eastern Region (Zlin). As a matter of fact, and based on the snowball sampling technique adopted for the present study, the questionnaire was sent to students at the Tomas Bata university who later sent it to other people to participate in the research. To this end, and with respect to data collection and analysis technique, structured self-administered questionnaire design and online survey were employed to execute the overall goal of this study. Out of 150 questionnaires were distributed to the aforementioned university's students, 122 cases were validly geared toward the analysis, hence representing eighty-one percent response rate. These students formed the consumers who belong to at least an online social media platform. Table 1 below depicts a demographic profile of respondents for this study. We must emphasize that this research relies on the dataset collected from a larger survey which targeted students of Tomas Bata University in Zlin, Czech Republic and excerpts of the data was also used in a paper presented at the European conference of social media (Jibril, Kwarteng, Chovancova, & Vykydalova, 2019) at the University of Brighton, United Kingdom.

3.2. Measures

With the exception of the demographic profile, all the remaining measures and operations used in the study were adapted from previous studies. To this, the measures (see Table 2) of social media platform(SMP), online based-brand community(OBCC), and consumer-brand engagement(CBE), User-brand relationship(UBR), Consumer brand promise and trust(BPT,) and Consumer-brand loyalty(CBL) were taken from the literature. It is important to remind readers that the measurement

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Construct	Definition	Measured items	Literature sourced
Table 2. Definition and summary of research constructs and their measured items			
Social media platform (SMP)	A marketing communication channel uses to promote a product or service over the internet. Example, Facebook, Twitter, LinkedIn, Instagram, Pinterest, YouTube, etc.	SMP_1: Social media an easy platform where I can engage in. SMP_2: Social media influence you to join an online group connected to a brand or product. SMP_3: Social media based-brand community has led to the creation of a virtual community (interaction over the internet)	Goh et al. (2013), Hutter et al. (2013), Laroche et al., 2012), McAlexander et al., 2002); Muniz and O'guinn (2001), Ul Islam, Rahman, & Hollebeek, (2017), and Gong (2018)
Online based-brand community(OBCC)	A brand community is a specialized, non-geographically bound community, based on a structured set of social relations among admirers of a brand" and it represents a form of association embedded in the consumption context positioned around product/brand or even a company	$OBBC_1$: Joining online based-brand community makes you feel a sense of belongingness $OBBC_2$: Online based-brand community leads to brand posts by the brand owner $OBCC_3$: Brand community accessibility and familiarity in social media can influence your purchasing attitude towards brand	(Muniz & O'Guinn, 2001,) Goh et al. (2013), Hutter et al. (2013), Laroche et al., 2012), McAlexander et al. (2002), Ul Islam, Rahman, & Hollebeek, (2017), and Gong (2018)
Consumer-brand engagement(CBE)	It's a form of relationship marketing where the bond between consumers and brands strengthens as the level of engagement heightens.	CBE_1: Consumer brand engagement has the power to transform consumer behavior CBE_2: Consumer-brand engagement leads to brand consistent engagement brand owner and consumer	Goh et al. (2013), Hutter et al. (2013), Laroche et al., 2012), McAlexander, Schouten, & Koenig, 2002); Muniz and O'guinn (2001), Ul Islam, Rahman, & Hollebeek, (2017), and Gong (2018)
User-brand relationship (UBR)	The forming of an intimate relationship between brand and customer (or user of a brand) is often completed in a series of stages of increasing intimacy .It also refers to the relationship that consumers, think, feel, and have a product or company brand.	UBR_1: User brand relationship on social media platform makes brand(product) identification easier. UBR_2: User-brand relationship in social media platforms makes product descriptions more understanding. UBR_3: User-brand relationship on a social media platform makes seller-buyer interaction more friendly.	Tuškej, Golob, and Podnar (2013), Hsieh and Wei (2017), and Gong (2018)
Consumer brand promise and trust(BPT)	A brand promise is a statement made by an organization to its customers stating what customers can expect from their product and services. For example, by being the brand that communicates honestly, transparently, and consistently delivers on its promises, it could become your industry's trusted choice.	$CBPT_1$: Constant engagement on social media based-brand community leads to brand promise and trust $CBPT_2$: Social media based-brand community offers the needed services to its members' satisfaction.	Bigne, Andreu, Hernandez, and Ruiz (2018), Esch, Langner, Schmitt, and Geus (2006), Adjei et al. (2010), Mahrous and Abdelmaaboud (2017), Hennig-Thurau et al. (2010), Adjei et al. (2010)
Consumer-brand loyalty (CBL)	Brand loyalty is a pattern of consumer behavior through which consumers tend to get committed to a specific brand or product and make repeat purchases over time.	CBL_1: User-brand relationship in the online social media-based brand community leads to brand affection (love) CBL_2: Feature content in social media based-brand community influence your purchasing attitude towards a brand	Bigne et al. (2018), Esch et al. (2006), Adjei et al. (2010), Mahrous and Abdelmaaboud (2017), Hennig-Thurau et al. (2010), Adjei et al. (2010)

items were viewed through a five-point Likert scale with 1- being "*extremely disagree*" and 5-beings "*extremely agree*".

3.3. Selection of the analytical tool

A partial least square and structural equation modelling (PL-SEM) was applied to analyse responses obtained from the survey. This technique was employed mainly due to a lack of coherent explanation for the aforementioned constructs situated in this research theme. Adding to this is the consistency of this model which has generally been used widely in this field of study and can be found in eminent researchers like Hair Jr, Sarstedt, Hopkins, & G. Kuppelwieser, (2014), hence it remains one of the appropriate techniques for empirical research which cannot be underestimated especially when testing consumers feeling and perception. Again, PLS is viewed critically by several methodological researchers. However, PLS-SEM is still considered preferable (over CB-SEM) when it is unknown whether the data's nature is a common factor- or composite-based. However, PLS-SEM under this approach focuses on maximizing the explained variance of the endogenous constructs unlike covariance-based SEM (CB-SEM).

4. Empirical results

To evaluate the mediating effects of the social media based-brand community on consumer-brand loyalty, preliminary data analysis was conducted to discover items that were correlated and regressed. To evaluate the performance of the measurement model, PLS-SEM test was conducted to make and confirm assumptions about the parameters of the population distribution from which the sample is drawn. The estimation was done using Partial least square and structural equation modelling (PLS-SEM) and the method assumes multi-normality of the distribution of the observed data (Bolin, 2014; Hair, Hollingsworth, Randolph, & Chong, 2017). However, more importantly, this technique is used in predicting and explaining some complex questions pertaining to this present study, such as modelling mediated or moderated relationships or even modelling of moderated-mediation analyses.

4.1. Reliability test and cronbach alpha

The output that emerged from the reliability test using the coefficient of Cronbach Alpha showed that the 15 multiple-scale items (with a minimum of 2 items per each construct) fulfilled the threshold value of 0.5 for a further study of this phenomena. The Cronbach Alpha value of the social media platform (SMP) was 0.617, the online based-brand community was 0.534, consumer-brand engagement was 0.584 while user-brand engagement was 0.653. Therefore, this is an indication of the internal consistency of the measuring scale (or items) of our constructs and reflected sufficient convergent reliability. Also, it is important to note that consumer-brand loyalty (CBL) and consumer-brand trust and promise were near the threshold of 0.5 with 0.483 and 0.466 respectively. Also, it worth understand that the composite reliability of all items loaded to the respective construct met the threshold requirement of 0.7 which ranges from 0.76 to 0.83 (see Table 4).

4.2. Exploratory factor analysis

With regards to the result (see Table 3) of the Kaiser-Meyer-Olkin (KMO) Measure Sampling of Adequacy (0.811) and Bartlett's Test of Sphericity (statistically significant at P = 0.000 with an approximate chi-Square value of 565 and a degree of freedom of 105. Considering the Kaiser criterion of the eigenvalue (eigenvalue > 1 rule), the cumulative percent of variance extracted were noted. In determining the factor extraction, the aim was to reduce a large number of items into factors or components. Therefore, the Kaiser eigenvalue rule served as a benchmark for dimensions or variables that were retained. Again, reflecting on the fundamental principles of the EFA and consistent with prior research (Hollebeek et al, 2014; Hair Jr, et al, 2016), the evaluative measure of SMP and CBE to test the dimensionality of other constructs used for the present study was further subjected into the principal component analysis (PCA), using the varimax rotation technique. The attributes or components shown from (Table 3) in the initial eigenvalue computation stimulated a cumulative percentage of (58%) of the total variance associated with the

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Table 3. Result of the PCA of the study constructs	Components			
	1	2	3	4
CBPT1	0.836			
CBL2	0.682			
CBE2	0.675			
CBL1	0.654			
UBR3	0.52			
SMP3		0.886		
SMP1		0.85		
OBBC1		0.612		
UBR2			0.705	
OBBC3			0.688	
CBPT2			0.672	
UBR1			0.504	
OBBC2				
SMP2				0.868
CBE1				0.583
Initial eigenvalues	4.853	1.504	1.230	1.112
% of Variance Explained	32.354	10.029	8.198	7.414
Cumulative % of Variance Explained -> 57.994				
Extraction Method: Principal Component Analysis.				
ª Rotation converged in 5 iterations.				
Kaiser-Meyer-Olkin (KMO) Measure Sampling of Adequacy -> (0.811)				
Bartlett's Test of Sphericity:				
Approximate chi-Square value -> 565				
df -> 105				
Sig. -> 0.000				

Source: Authors' Elaboration extracted from SPSS

measured items. As a result, the new dimensions (components) indicated the following estimation of squared loadings (variance extracted or explained). Thus, Component 1 accounted for 32.35%, Component 2 accounted for 10.03%, 8.20% and 7.41% accounted for Component 3 and Component 4 respectively. As a matter of urgency, all valued measurement items below the eigenvalue of 1 were discarded. The few items that were cross-loaded were eliminated and items with insignificant loadings less than 0.50 were simultaneously dropped (see Table 2 in appendices). Readers are reminded that Principal component analysis (PCA) with manipulation of Kaiser varimax rotation (see Table2) was extracted. The essence of this table was to show higher correlated items (strong loadings) to the new components. Considering the convergent and discriminant validity, we can argue that our seven-dimensional constructs satisfied all initial requirements in that all the factor loadings exceed 0.50. Cross loading was eventually eliminated when varimax rotation was performed and ultimately five iterations were converged. Hence, Table 2 shows a clear reduction of fifteen (15) measured variables into four factors or components.

4.3. Hypotheses testing using partial least square structural equation modelling (PLS-SEM)

To begin with, the authors performed the outer reflective model using PLS-SEM (see Table 4) so as to validate the research model in terms of internal consistency reliability, convergent validity, and while discriminant validity is shown using Fornell-Lacker's Criterion (see Table 5). From the output in Table 4, it was noted that the traditional Cronbach alpha in PLS-SEM is less robust when equated

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Table 4. Quality criteria for outer reflective model

Latent variable	Indicators	Loadings	Bootstrapped T-value (loadings)	Composite Reliability	AVE	Cronbach Alpha
	CBE1	0.820381	13.017	0.827322	0.705608	0.583843
CBE	CBE2	0.859181	19.134			
	CBL1	0.780906	11.869	0.793907	0.658556	0.483472
CBL	CBL2	0.84101	17.352			
	CBPT1	0.895374	30.053	0.780276	0.643284	0.466096
CBPT	CBPT2	0.696329	7.207			
	OBBC1	0.790293	16.204	0.761193	0.517301	0.533592
OBBC	OBBC2	0.729387	9.149			
	OBBC3	0.628757	4.977			
	SMP1	0.908032	27.056	0.808463	0.607539	0.617132
SMP	SMP2	0.410361	2.662			
	SMP3	0.910878	25.888			
	UBR1	0.794711	16.72	0.797714	0.569894	0.625377
UBR	UBR2	0.656993	5.224			
	UBR3	0.804038	16.194			

Source: Authors' Elaboration extracted from SmartPLS

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Construct	Mean (SD)	CBE	CBL	CBPT	OBBC	SMP	UBR
CBE	3.855 (0.916)	**0.840***					
CBL	3.690 (0.861)	0.466501	**0.748***				
CBPT	3.885 (0.791)	0.482721	0.62051	**0.796***			
OBBC	3.810 (0.886)	0.392336	0.409952	0.369227	**0.716***		
SMP	3.787 (0.894)	0.3392	0.328171	0.318678	0.540908	**0.909***	
UBR	3.997 (0.856)	0.366573	0.506779	0.461701	0.574545	0.432491	**0.752***

Table 5. Test of discriminant validity (Fornell-Lacker's Criterion), R2, Mean and SD

N = 122 users of social media associated with the brand community.

*The highlighted diagonal values indicated the square root of average variance extracted (AVE) for each construct, the other values represent the correlation among constructs.

Sources: Authors' Elaboration extracted from SmartPLS.

to composite reliability (Wong, 2013). Nevertheless, it has been noticed that all the outer loadings (see Table 4) exceeded the baseline of 0.5. Meanwhile the composite reliability according to Wong 2013, should exceed 0.6 for research constructs internal consistency to be seen as highly considered. By virtue of this benchmark, the composite reliability of all the six constructs (latent variables) in the model exceeded 0.6. however, with regard to the Cronbach alpha values, four constructs (CBE, OBBC, SMP, and UBR) exceeded the minimum acceptable level of 0.5 with exception of CBPT (0.47) and CBL (0.48) which was marginally below the benchmark of 0.5.

Nevertheless, the rigorous analyses of this study showed the estimated path coefficients regarding construct dependencies or variable relationship and its significance in the above structural model. See Table 6 for the outcome of the path regression model.

As earlier mentioned, we assessed the model through the structural equation modeling (SEM) algorithm with PLS by the bootstrap re-iterating sampling procedure. Table 6 shows the estimated path coefficients and associated t-statistics of each path in the research model of the present study. As can be seen from Table 6, all path coefficients were statistically supported as hypothesized with the exception of Hypothetical path (SMP—> CBPT) which was not supported, yet recorded a positive and moderately direct relationship with a coefficient of 0.069. We must emphasize that the PLS revealed that all extraneous variables explain 29 percent of OBBC, 33 percent of the variance in UBBR, 33 and 38 percent in both CPT and CBL respectively. All variables predicting CBL and mediating OBBC were found to be statistically significant. Thus, SMP—> OBBC and SMP—> CBPT with path coefficient at 0.54 and 0.06(moderately weak). The impacts of both OBBC—> CBE; OBBC—> UBR with path coefficients of 0.39 and 0.57 respectively. Again, the two consequences of CBE—> CBPT and UBR—> CBPT were statistically significant and stood at the path

hypothesis	Hypothetical path	Coefficient	S.E	T-Statistics	Test outcome
H1	SMP—> OBBC	0.541	0.083	8.433	Supported
H2	SMP—> CBPT	0.069	0.098	0.769	Not supported
H3a	OBBC—> CBE	0.392	0.096	3.963	Supported
H3b	OBBC—> UBR	0.575	0.077	8.574	Supported
H4a	CBE—> CBPT	0.348	0.090	3.750	Supported
H4b	UBR—> CBPT	0.304	0.103	2.894	Supported
H5	CBPT—> CBL	0.621	0.074	8.408	Supported

Table 6. Estimate of the hypothesized structural path model significance

Source: Authors' Elaboration extracted from SmartPLS

coefficient 0.34 and 0.30 respectively. Finally, the impact of CBPT—> CBL recorded a stronger path coefficient of 0.62. A theoretical model was tested with a sample of 122 students who are by virtue aligned with online brand community engagement, specifically social networking sites. Following the previous works of Van Deursen, Bolle, Hegner, and Kommers 2015; and Goh et al. (2013), it can be ascertained that the mediating role of the social media-based brand community regarding the present research conceptual model has been validated. Therefore, the visual estimation of the aforementioned constructs in the model has been indicated in (Figure A1) precisely.

5. Discussion and implication for theory and practice

Social media has become a driving force for many businesses to thrive. In view of this, the trending issue in a marketing environment is the application of ICT which has virtually subjected business organizations to harness the usefulness or practical benefits accompanied by the new technology (Social media platforms). However, building on the literature of brand management and relationship marketing, we modelled online based-brand community (OBBC) as mediator and brand loyalty (BL) as the final outcome of our research model (Hansen et al., 2018).

Findings from the analysis showed that the establishment of online based-brand communities on the various social media platforms support and strengthen the consumer-brand relationship and/or consumer brand engagement. This corroborates the works of Muniz and O'guinn (2001). This study adds up to the existing body of knowledge elaborating how social media channels trigger online interaction through the online based-brand community that affects consumer-brand promise/trust and subsequently brand loyalty. Our results indicate that social media platform serves as a predictor for creating a group page or a community geared toward a company's product or brand, and this has supported the earlier work of Hollebeek, Glynn, and Brodie (2014).

Interestingly, finding also suggests that the average time spent on social media sites has a higher tendency of strengthening the consumer-brand relationship. This could occur when a customer either by visiting the website or spent much time during a particular visit.

Practically, it can be deduced that having a group page or site that is frequently visited and used at length has several positive implications for the user and the brand owner. From our data, it was shown that persistence usage of the social media sites regarding engagement and interaction within the online community leads to an exchange of product/brand information which subsequently leads to a buyer decision making process or consumer purchase intention. This thereby supported the research of Coelho et al. (2018).

Additionally, a study by Bagozzi and Dholakia (2002) also validated our present research that the consistent engagement of social media-based community has an influential role to play in terms of relationship marketing which consequently has a positive impact on the brand promise and/trust as well as brand loyalty. In their study, they indicated that the relationship market becomes successful when brand owners and customers interact on a fair level ground especially giving the avenue for customers to vent their sentiments regarding a particular product or brand management. Adding to the present discourse is that, relationship marketing entails an aspect of customer relationship management (CRM) that focuses on customer loyalty and long-term customer engagement rather than shorter-term goals like customer acquisition and individual sales. For instance, this long-term and short-term customer engagement could be manifested through contemporary marketing and advertisement of the company's product and service especially via social media channels. In practice, it means that the effectiveness of brand communities is carved from the establishment of relationships with like-minded customers in terms of persuading customers or users to use the brand and to link with it. To augment this debate, Bagozzi and Dholakia emphasize that the end result of relationship marketing is to deepening brand loyalty between the customer and the brand owner. Nevertheless, we also found that participating in a brand-hosted virtual community has a positive impact on brand relationship towards consumer-brand promise/trust (CBPT) and consumer-brand-loyalty (CBL) as shown in Figure 1. However, we

realized that online based-brand communities should be managed and integrated into a company's branding strategy. According to Algesheimer al., (2005) companies should try to incorporate some physical activities into the virtual community with the goal of growing the social interaction and subsequently the value of the community from the company's perspective.

In this study, it is imperative to understand that in the online based-brand community positively influence consumers' trust and/promise among participants and consequently influence brand owners that could have a direct and indirect effect on the consumer-brand relationship. We, therefore, suggest to practitioners or brand managers to pay attention to the swift growth of virtual communities in the marketing sphere and consider how this development could be managed for the benefit of a company's brand loyalty.

Having this in mind, the managerial implication of this research will help practitioners and industry players to harness the usefulness of social media platforms in their quest to increase market share in the medium to long-term goals. The study further broadens the insight into the social media marketing sphere. In theory, the present study broadens the scope of the concept of brand management and social media marketing by offering empirical evidence that highlights some major constructs which explain the relationships in the context of social media-based brand community. More so, practitioners or social media marketers must recognize what interactive digital advertising and virtual brand communities can do, not only for a brand but for users and potential consumers. Considering this as marketing and advertising venues in social media, advertising and brand community provide different communication platforms for users who create and maintain social networks online. Though advertising could be seen as one-way communication, a brand community, especially online based-brand community establishes for two-way communications among users. Therefore, users may perceive and use the content each platform provides differently, for their own gratification. In addition, users are more willing to trust, like, and participate in a brand community on social media.

Additionally, user motivations that drive social networking online employ significant effects on user reactions to advertising and brand communities in social media regarding the enhancement of a product or company's image. However, the integration of online marketing and advertisement via social media channels also creates various needs for online social capital and psychological well-being, and users of this new development behave strangely toward product advertisements which ultimately affect brand loyalty positively through the creation of online based-brand community. Studies have shown that need for bonding social capital relates to positive responses to advertising which thereby translate to a positive intention to accept or affiliate to a brand and consequently, actual purchase of such product. The need for connecting instead relates to positive responses to brand community, with no effect on advertising responses (Chi, 2011).

Managers or practitioners of social media marketing should understand that the establishment of the online based-brand community create content specific to each marketing communication platform, as well as relevant to what users or leads of social media are interested in. Moreover, it is quite interesting for business and non-business organizations to note that Social media are personalized, user-generated media, in which users exercise great control overuse and content creation (Tsimonis & Dimitriadis, 2014). The growing utilisation of social media marketing channels has become more personalized, for that matter, users of social media especially the millennia (see Table 1 "Age category") are more reluctant to accept advertiser-generated, as well as pushed messages. Hence is it being imperative to understand that the extent of user control over advertising via online brand community establishment can provide a significant outcome in developing brand communication towards consumer-brand loyalty.

6. Conclusion, limitation, and future research direction

To sum up, the main objective of the present study was to investigate the mediating role of the social media based-brand community by taking into consideration, especially, the effects of online

based-brand community on consumer's purchase attitude toward brand loyalty. The paper explores the strength of the relationship between the constructs (predictors and outcome) captured in the proposed model.

Further insights from the research model reveal that the constructs SMP, OBBC, CBE, UBR, BT/P, and BL are all positively influencing consumer's purchasing attitude and intention in the social media context. This has been shown in the Spearman's correlation table above with its respective construct coefficients. Also, social media as a moderating factor has a tendency of influencing the perception and attitude regarding consumer's buying decisions and intentions. These findings, though were not part of the initial hypotheses, indicated that marketers and brand managers should dwell more on enrolling and making maximum use of the online platform for marketing and advertisement, which in turn has a tendency for business growth and sustainability.

Again, regarding the fitness of the model used for the analysis, it was statistically significant suggesting that the model was appropriately used for its intended purpose. However, like most empirical studies, our research is limited in several ways. Firstly, our study employs a non-probability sampling technique, particularly, the snowball sampling was deemed fit for this study (Etikan et al., 2016). For this reason, we could not have obtained a large sample size for this study. Another limitation of the present study is the scope of the investigation. It could not take into consideration other geographic jurisdiction since the study focus in only one city from the same country. Readers should note that the present study could be described as a pilot study regarding the unit of analysis, hence, the probability of having a similar or variations from several categories of participants of the same study. We hope that a relatively large sample size would make the results of interest to a larger audience and will also overcome the limitation of sampling. To this end, the results cannot be generalized as compared to the number of social media users worldwide.

We recommend future research direction on the cross-cultural impact on the online based-brand community on both consumer's buying decision and firm's selling decision. Even though this research is a pilot study, however, it is important to note that the study adds to scanty research in the social media marketing sphere. Future research direction should focus on generalizing the scope of the study considering the lens of coverage of social media users worldwide.

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Disclosure of interest
On behalf of all authors, the corresponding author states that there is no conflict of interest in whatsoever.
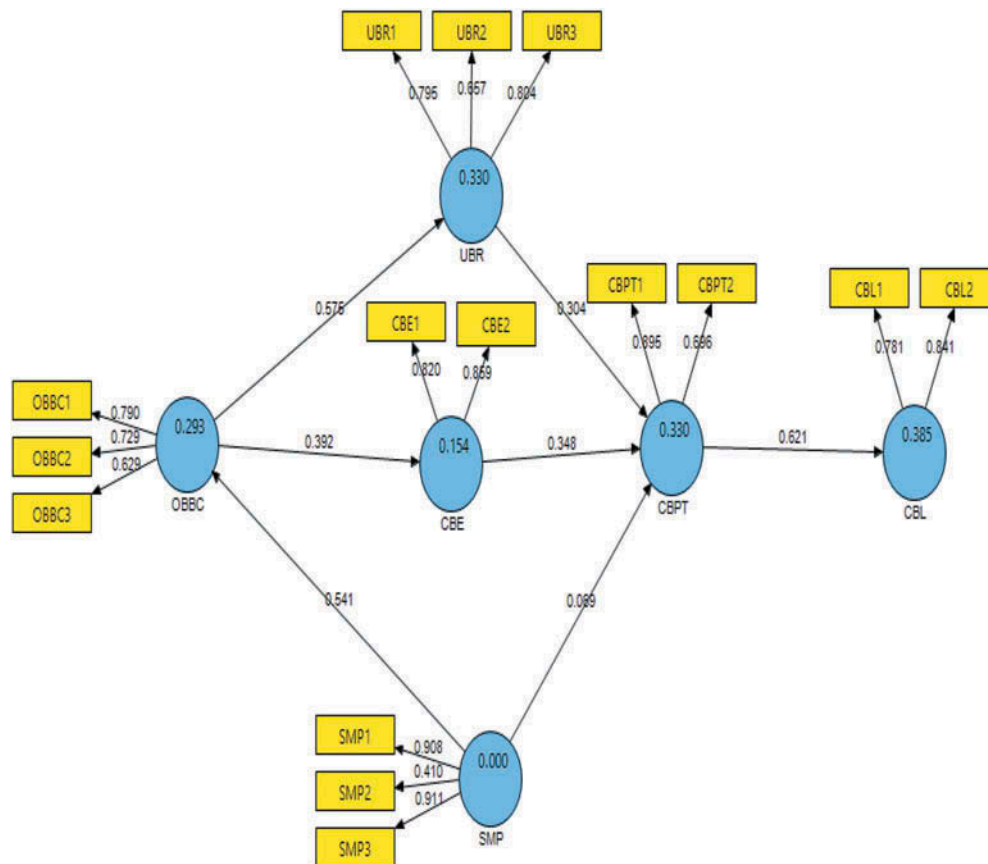
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Appendix A

Figure A1. Visual description of estimated structural model Source: Authors' Elaboration extracted from SmartPLS.

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