

**Online brand communities' contribution to digital business models:
social drivers and mediators**

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Online brand communities' contribution to digital business models: social drivers and mediators

Abstract

Purpose: There is limited research examining social drivers and mediators of online brand community identification in the context of business models development. This study aims to identify them behind the social mechanisms and present essential factors which should be applied in business models to foster value co-creation.

Design: Data were collected from a convenience sample of 712 cases gathered among young European Facebook users via an electronic survey and analyzed using the structural equation modeling method.

Findings: Customer-other customers' identification is a pivotal factor in influencing brand community identification.

Practical implications: If companies want to implement online brand communities into business models effectively and co-create brand value they need deliver brand content useful for customer self-expression and social interaction to enhance consumer-brand identification and customer-customer social bonds which enable to transform the audience into a community. Focusing on the constant reinforcement of online brand community by supporting customer-customer relationships is critical for voluntary value co-creation.

Originality/Value: The main contribution of this study to the literature on online brand communities is the presentation and empirical verification of pivotal social mechanisms of online brand community identification considered as a starting point to potential co-creation and capturing value based on the social presence theory.

Keywords: online brand community, social presence theory, transfer of meaning theory, social identity theory, business models, social media, social interaction, self-expression, brand community identification, customer-customer relationships, consumer-brand identification, social network brand identification



1. Introduction

Digitalization opens new pathways for business development powered mainly by social and not exclusively by economic domains. Social networks are the dominating part of these new ecosystems. *Digital in 2017 Global Overview* (*wearesocial.com*) revealed that more than half of the global population uses the internet and 37% of them are social network users who generated advertising revenue of USD 41 billion \$ in 2017, a steep increase from 17.85 billion \$ in 2014 (*statista.com**). It is becoming increasingly noticeable that social media marketing affects long-term value creation (Joshi and Hanssens, 2010). It is also worth highlighting that unpaid content sharing generated by 2.789 billion active users worldwide is a prominent process in social networks (*wearesocial.com*), and only digital media among all media types notes the growth in daily consumption (*statista.com***). That is why social networks are not only communication platforms but also instruments related to the creation of business models.

A sustainable business model enables to create, analyze, manage, deliver, and communicate the company's value proposition to its customers and other stakeholders and to capture economic value by employing the social capital of customers and other stakeholders (Neumeyer and Santos, 2018; Piyathasanan *et al.*, 2015, Schaltegger *et al.*, 2016;). It perfectly reflects the ideas of the "sharing economy" and the "wisdom of the crowd" by which value is shared and co-created (Heinrichs, 2013). Thus, companies are interested in establishing and sustaining a close "digital relationship" with customers (Phillips, 2015). The concept of online communities provides a beneficial opportunity in this regard.

The contribution of online brand communities to digital business models is an interesting issue from a practical viewpoint. Virtual brand communities enable enterprises to attract customers in the increasingly dominant virtual world. Thanks to the comprehension of fellowship mechanisms, marketers can manage this group more effectively. Thus, the understanding of how community identification evolves in the virtual world is crucial to business theory and practice. Business models and online communities are closely related.

Online communities are groups of internet users who interact regularly and maintain their relationships via computer-mediated communication technologies such as online discussion boards, web blogs, and social media (Alhaj and Rokne, 2014). According to the classification by Porter *et al.* (2013), customer-initiated and firm-initiated communities are perceived in terms of community initiation and management. As a result, these two sources offer different benefits. As regards firm-hosted communities, Iskoujina *et al.* (2017) pointed out that online

communities can offer tangible and intangible values to the business. The first ones are primarily financial and relate to the sales of products and services. The latter may include positive word-of-mouth, the creation of more effective market segments, increasing website traffic, or providing better product support and service delivery (Porter, 2004; Spaulding, 2010). It can also involve sustaining stakeholders' relationships by trust building or in other ways, including increasing brand awareness and commitment and adding value by sharing the company's content (Macaulay *et al.*, 2007). Chu and Chan (2009) highlighted that consumers could improve the innovation process significantly by sharing information and know-how, offering the skills needed to solve problems, and acting not only as sources of ideas and their co-creators but also as testers and, finally, buyers. Cummins *et al.* (2013) pointed out that online communities' studies require deep consumer behaviour investigations.

Iskoujina *et al.* (2017) stressed that a limited number of studies had focused on the commercial opportunities that online communities provide, and the ways by which to integrate them into a coherent business model. According to Haggège *et al.* (2017), coherent business model performance depends on a carefully crafted understanding of what a company offers to its customers and how it engages in customer relationships. Customer engagement, according to Hollebeek (2011, 2012) and Hollebeek *et al.* (2014), might be a key driver of customer value. Hajli *et al.* (2017) highlighted that social media could effectively contribute to the development of the whole digital strategy if both managers and consumers are involved. Coelho *et al.* (2018) pointed out that the key challenge for social media managers today is transforming consumer-community interactions into relationships which will be remunerative for the company. Black and Veloutsou (2017) used participant ethnography method to identify brand-individual-community identities triangle and noticed that when consumers interact with brands, they co-create brand production, i.e., brand identity and reputation. Consumers' interaction with brand generally strengthens and supports it.

Inspired by the researchers quoted above, using the quantitative methods, the Author aims to respond to the problem of a limited number of studies focused on the commercial opportunities that online communities can provide. Namely, the research problem tackled in this study is the lack of the listed key factors important for thriving online brand communities' identification tied directly to practical tips on how and why these elements should be considered when designing business models. The main research questions related to filling this gap are:



1. What factors drive and mediate desired consumers' online brand community identification?
2. Why and practically how these elements should be considered when designing business models?

Hence, the aim of this study is first, to identify social drivers and mediators behind the social mechanisms of brand community identification (as a starting point for co-creation); next, to present which of them are essential and should be applied in business models.

The purpose of conducting this study was to integrate the theory and practice of online brand contribution. Bridging the theory and praxis is vital for achieving academic rigor and practical relevance, as was pointed out by Nenonen *et al.* (2017). Moreover, Perea and Brady (2017) stressed that the way to make scientific research more valuable for business is to make it less complicated and more comfortable to implement. Summarizing, the study aims to provide an answer to the research question and next responding to the research problem explaining how to translate findings to practice. Table 1 below presents the study overview.

Place Table 1 about here

The structure of this study paper starts with the literature review and goes to developing the conceptual framework and formulating the research model. Next, the structural equation modeling (SEM) method is employed to analyze the structure of the influence of community social drivers and mediators. Then, findings from the model are simplified and transformed into practice by practical managerial guidelines formulation on how to implement the SEM model's findings into praxis to sustain new value creation and implementation in new business models. Finally, all results: the empirical model and practical guidelines, are presented and discussed. Based on that, conclusion and limitations of the study are elaborated.

2. Conceptual framework

2.1 Virtual brand community identification as a source of brand value

With the overall aim of the study in mind, it is important to start by explaining the theory behind the idea that co-creation of brand value contributes to the identification with a brand community. Brand, as one of the key intangible assets of a company (Barwise *et al.*, 1990), is a source of long-term value for the business to customer (B2C) and business to business

(B2B) markets (Baumgarth, 2010). The digital era has changed the way of creating brand value. As Rowley (2009) stressed, online, and multichannel branding supportive to brand value creation. An excellent example of it is collaboration. Merz *et al.* (2009) presented a new idea of collaborative branding, “Marketing managers might benefit from investing resources in building strong brand relationships with all of their stakeholders, and a service-dominant firm philosophy built around brand value co-creation” (p. 328). The concept of brand co-creation was next broadly developed within the context of online brand communities. (Anker *et al.*, 2015; Ellahi and Bokhari, 2013; Hshieh and Wei, 2017; Hutter *et al.* 2013; Laroche *et al.*, 2012; Loureiro *et al.*, 2015; Muñiz and O’Guinn, 2001; Payne *et al.*, 2009; Sparks *et al.*, 2015). Virtual brand communities extend beyond geographical boundaries, are characterized by an online social presence on a particular platform and involvement because of a common interest in a particular brand (Kim *et al.*, 2011 and Iskoujina *et al.*, 2017). To enables co-creation, brands use relational brand engagement platforms to connect customers with other customers and stakeholders via modern mobile devices to create brand value through social experiences, and accelerate their involvement in innovation production (Prahalad and Ramaswamy, 2004; Ramaswamy, 2008, 2009, 2011; Ramaswamy and Ozcan, 2014, 2016).

The concept of “working consumers” best reflects the idea of brand co-creation by active users (Pongsakornrunsilp and Schroeder, 2011). Working consumers are the group of users who volunteer their time and talent in different ways to create value for the brand (Bauer and Gegenhuber, 2015). They are snappy, creative, and constructive (Cova *et al.*, 2011). They cooperate by donating their immaterial contribution, such as innovative ideas, information, or experiences. Working consumers strongly support the brand (Hu, Zhao, and Cheng, 2012; Zwick *et al.*, 2008) and work for companies through their participation in online brand communities (Cova and Paraque, 2010).

Companies sometimes invite consumer groups to co-create a brand's ideology, use, and persona (Cova and Pace, 2006) by producing material that looks as if the brand originates from the company (Muñiz and Schau, 2007). When consumers perceive brands as shared cultural property (Cova and Dalli, 2009), they may re-appropriate the brands without company involvement (Cova and Pace, 2006). Brand communities are increasing consumer empowerment (Quinton, 2013; Veloutsou, 2009) by enabling them to interact with each other and organize themselves. Some communities’ members sometimes even believe that they own the brands, rather than the companies (Cova and White, 2010). Such kind of perception of “brand possession” may be very problematic. Muñiz and Schau (2007) stressed that



companies might even view them as dangerous due to the risk of losing the control of brand creation (Cova and White, 2010). Hence, the identification matters when it comes to co-creation and is worth to be deeper investigated in the virtual brand community context and expected voluntary value co-creation.

Identification with a virtual brand community is an issue that has engaged the attention of marketers and scientists for more than a decade. The interest stems not only from the ability of a community to influence crowds or because it provides a relatively cheap peer-to-peer communication (Bagozzi and Dholakia, 2006; Dholakia *et al.*, 2004; Iskoujina *et al.*, 2017; Tsimonis and Dimitriadis, 2014). It comes from the fact that a community enables enterprises to co-create and capture value resulting from an advanced customer–customer and consumer–brand relationship (Schau *et al.*, 2009). These high-level relationships are essential for creating valuable business models, as noted by Phillips (2015) and supported by Kannan and Li (2017). To summarize, the system of brand value co-creation is connected with the identification of a person with a particular community. The critical element of community identification is the concept of the self (Mackenzie, 2008) because the self-concept, identity, and attitude functions have provided clear evidence that identity often drives behavior (Reed II *et al.*, 2012). Black and Veloutsou (2017) stressed that when consumers identify with other users of brands, they interact with them and co-create brand value. Community identity, according to Jung and Kang (2010), can be driven by social relations.

2.2 Social media presence benefits: expected drivers

Social presence theory

The social presence theory (Short *et al.*, 1976) claims that communication with the most popular media leads to a higher degree of social presence, which makes interactions more positive and tight. In other words, a more frequently used communication tool leads to increased social life engagement. Present day social media prove this idea to be true. Kamboj *et al.* (2018) stated that the concepts of brand community and social media make socialness a focal component. According to Algharabata *et al.* (2018), social presence is next to telepresence and involvement a key antecedent of consumer brand engagement in social media. Osei-Frimpong and McLeanb (2018) also confirmed that it influences social media brand engagement. Davis *et al.* (2014) identified self-oriented, social, and relational factors next to functional and emotional factors as key drivers of brand consumption in a social media community. Thus, brand managers need to understand the motivations and priorities of brand-

network actors to involve them in the creation process (Gyrd-Jones and Kornum, 2013). Thus, the social presence theory opens the investigation aimed to first, to identify the motives and mechanisms behind the identification with a virtual brand community to determine key drivers and mediators in light of social identity theory and transfer of meaning theory; and next, better understand the structure of relations between them to apply this knowledge to business models.

Social identity theory

Based on Tajfel and Turner (1986) also developed by Turner and Oakes' social identity theory (1986), which was later expanded by Hogg and Abrams (1990), Ashforth and Mael pointed out that a consumer's first, define and next, express themselves in the context of a particular reference group. Therefore, self-expression and social interaction are always combined and may influence one another. Social interaction and self-expression benefits are primary functions of social media (Heinonen, 2011). Keng *et al.* (2015) proved that various combinations of virtual interpersonal experience would indicate a different attitude of members of the virtual community. According to Short *et al.* (1976), the community perception refers first of all to the degree of prominence of a particular person in the communication interactions and next to the salience of the resulting relationship. Thus, based on the studies referred to earlier on, expected social interaction benefit and self-expressive benefit seem to be critical social integrative antecedents of identification with brand and other social media consumers of this brand (Kamboj and Sarmah, 2018; Kim *et al.*, 2010; Kozinets, 2002; Kozinets *et al.*, 2010; Tonteri *et al.*, 2011). Self-expression is a form of affirmation of one's self and always takes place in a social context (Ashforth and Mael, 1989). Whereas social interaction is, in the present study context, an effect of an active social co-existence in a virtual space. Hence, expected self-expression and social-interaction benefits are linked, and the correlation between them is anticipated. If it proves to be accurate, it means that community managers should support social interaction within a community by supporting self-expression of its members and vice versa. To draw conclusions, from these assumptions, the following hypothesis must be verified:

H1. The social interaction and self-expression benefits perceived by a particular social media user are correlated.

Social connections with friends and other users who share interest or tastes in brands foster community building (Hennig-Thurau *et al.*, 2010; Jung *et al.* 2014; Saboo *et al.*, 2016) and



social capital creation (Phua *et al.*, 2017). Hudson *et al.* (2016) confirmed that social media interaction affects the consumer-brand relationship. In line with Stokburger-Sauer *et al.* (2012), consumer-brand identification is defined as a perceived feeling of oneness with a brand and is supported by social interactions. Keeping in mind the study aim, it is important to find out how social interactions influence the identification with brands in social networks. Based on previous studies, the following hypothesis is proposed:

H2. High level of social interaction of a particular consumer has a direct positive influence on identification with a brand.

As emphasized above, social interaction, next to self-expression benefit, is one of the most essential social integrative sources influencing relationships with other brand community users (Kamboj and Sarmah, 2018; Kim *et al.*, 2010; Kozinets, 2002; Kozinets *et al.*, 2010; Tonteri *et al.*, 2011). Moreover, Achen (2018) proved that higher levels of interaction on Facebook lead to a more excellent quality of the relationship. As the two parties interact, links, involving, and the relationship of both sides is growing (Ferrand and McCarthy, 2009). Hence, similarly to H2, H3 has been developed as follows:

H3. The highest level of perceived social interaction benefit, the more positive direct influence on the relationships with other customers is observed.

Transfer of meaning theory

Identification with a particular fan page of a brand by a person can result from the anticipated influence this involvement may have on that user's image. According to McCracken's (1990) theory of meaning transfer, individuals can achieve "self-expression" by transfer of meaning from the more influential individual, group, or symbol to themselves to gain desired importance. With the reference to social media by the brand identification by e.g. the access to fan page and usage content produced by brands (Saboo *et al.*, 2016; Kucharska, 2017), and transfer brands meaning to themselves through their visible identification with brands (Bagozzi *et al.*, 2012, Kelley and Alden, 2016). In line with all above, the following hypothesis is presented:

H4. The highest level of perceived self-expression benefit is the more positive influence on the identification with the brand.

Moreover, social media generally facilitate self-expression and self-promotion (Lee and Ma, 2012) and help ‘narcissists’ in self-image creation (Leung *et al.*, 2013), important to gain social presence and recognition for start and retain relations. Summarizing, expected self-expression benefit of brand meaning usage fosters the opportunity of interactions with other customers of this brand, which is a starting point for making relationships. Bearing in mind the study aims the following hypothesis has been formulated:

H5. The highest level of perceived self-expression benefit the more positive influence on the relationships with other customers.

All above hypotheses are essential due to the assumed correlation between social interaction and self-expression. To understand brand community social mechanisms, it is helpful, to know how identified drivers: self-identification and self-expression are related to mentioned earlier relationships with other customers and identifications with brands.

2.3 Online brand community identification: expected mediators

“Rituals and symbols are vital social processes by which the meaning of the brand community is reproduced and transmitted within and beyond the community” (Muñiz and O’Guinn, 2001, p. 421). Interactions between members are essential to creating social bonds. Social media allows community members to interact freely (Habibi *et al.*, 2014; McAlexander *et al.*, 2002). Luo *et al.* (2016) stressed that both consumer-brand relationships and consumer-other consumers’ relationships have a positive impact on the identification of the consumer within the online social community. For this reason, maintaining harmonious relationships among social media users is an important success factor of brand community platforms (Carlson *et al.*, 2008; Luo *et al.*, 2016; Schau *et al.* 2009; Schouten *et al.*, 2007; Veloutsou and Arvaniti, 2016; Wu and Fang, 2010). Kang *et al.* (2016) pointed out that customer-to-customer interaction leads to brand community engagement. Hung and Lin (2015) and Hsieh and Wei (2017) also pointed out that interpersonal interactions and social relationships are positively associated with online brand community commitment. Whereas Loureiro *et al.* (2015) stressed that customer-brand identification lead to a stronger brand community identification. The all above prompts hypothesis 6:

H6. The highest level of customer-other customers’ relationships of a particular brand the most substantial influence on this brand community identification is observed.

Following the identification of social media user with other users (customers) and particular brand consumers, is worth to mention Martinez-Lopez *et al.* (2017) study which supported the findings of Carlson *et al.* (2008) and Abfalter *et al.* (2012), namely, that brand identification is a crucial element of community brand identification. Keng *et al.* (2015) stressed that socially oriented motivations to join a virtual community significantly affect the social behavior of consumers. The qualitative study of Coelho *et al.* (2018) stressed that perceived similarities with other community members and brand values contribute to community engagement and loyalty. Based on these findings, hypothesis 7 is presented:

H7. High level of customer-brand identification has a direct positive influence on brand community identification.

The identity and identification influence on value co-creation (Skålén *et al.*, 2015). Also, Hinson *et al.* (2019) noted, that value co-creation is an engagement effect preceded by identification processes. So, engagement is active participation, but there is no engagement without identification. That is why this study focusing first, on online brand community identification mechanisms to next, point out why and how these mechanisms should be considered when designing business models. Hence, verification of hypotheses H6, H7, and H8 is essential to understand how identification with the brand and with other customers is related and how they influence brand community identification which is assumed to be a starting point to voluntary value co-creation. Verification of these hypotheses will provide knowledge important to formulate practical guidelines, useful for the implementation of further business models based on online brand communities.

The important point for the last hypothesis development is that common interests integrate users, after Balmaceda *et al.* (2014), Hennig-Thurau *et al.* (2010), and Saboo *et al.* (2016). Therefore, logically, the identification with the brand may positively impact on relations with other users who evaluate positively the same brand. The positive impact of brand identification on interpersonal interactions has also been pointed out by Wang *et al.* (2012). The all above prompts hypothesis 8:

H8. The highest level of consumer-brand relationship the more positive influence on the relationships with other customers' of this brand.

The theoretical model developed on the basis of all these hypotheses is presented in Figure 1.

Place Figure 1 about here

Based on Figure 1, it has been assumed that some of the above relationships (identified by all the hypotheses suggesting direct relationships) can also support indirect influences. Namely, that they can be mediated (Kline, 2016). Based on H3 which assumes that the high level of social interaction (SI) of a particular consumer has a direct influence on the identification with other consumers, it is also possible that this direct relationship can be supported by consumer-brand identification (CBI). Similarly, based on the presented in Figure 1 structure of relationships it is worth verifying if the CBI also mediates the hypothesized (H5) direct relationship between such variables as self-expression (SE) and customer-other customer identification (CC). These expected mediations are in line with Transfer of Meaning Theory (Ashforth and Mael, 1989). Namely, the transferred through the act of identification meaning of the brand to customer influence positively on identification with other customers.

What is more, Belk (2013), Doster (2013), and Ruane and Wallace (2015) stressed that self-expressive brand identification (self-expression via transferring brand meaning) rewards consumers with certain social benefits of self-concept presentation to others. Namely, it is easier to present self-concept to others when using content delivered by easy-recognized brand. Additionally, for the thorough investigation of all the social mechanisms of online brand communities, there is a hypothesized causal effect that brand identification impact on online brand community identification is stronger when supported by consumer-other consumers' relations. Bearing in mind study aims, it is essential to verify if the customer-other customer relationships mediates the consumer-brand identification's positive (H7) influence on brand community identification (CI).

Summarising, the following mediations are expected:

- SI -> CBI -> CC
- SE -> CBI -> CC
- CBI -> CC -> CI

The analysis methods applied in this study are presented in the next section.

3. Method

The social media platform selected for the study was Facebook, the leader in its category. Data on young Facebook platform users were collected through a questionnaire started with a

brief introduction to state the purpose of the survey. Next, respondents qualified if affiliated to any brand's fan page or online brand community on Facebook. Literature referring to online brands' communities, also exploit interchangeably such appellations as a virtual community or a fan page depending on contexts (Vohra and Bhardway, 2019). In the questionnaire 'fan page' has been used in statements referring to users' benefits and brand identification, whereas 'brand community' in statements relating to social factors. Only positively responding users has been selected to participate in the survey.

After the qualification phase, selected participants responded using 7-point Likert scale declaring agreeing (7) or disagreeing (1) with the study statements. Statements has been adapted from original, validated scales which sources are presented in Appendix 1. For example, adopted from Jahn and Kunz, (2012, p. 360) social interaction scale enables originally to measure this construct using four statements (constructs' loadings). The one of these statements has been eliminated during validity assessment process to keep accepted level of Cronbach Alpha coefficient - used to assess internal consistency of the scale, CR coefficient - used to assess composite reliability and, AVE - used to assess discriminant validity (DeVellis, 2017). This procedure has been repeated for all adopted scales (Appendix 1). Community identification scale and customer-other customers identification scales comes from Luo *et al.* (2016, p. 683), who adapted it from two different sources to make statements clear. This research study was preceded by a pilot test conducted with 38 users to make it possible to eliminate or improve any statements that respondents perceived as unclear (Hair *et al.* 2010). This step of research is critical. Study context sometimes requires to reformulate some of the original statements slightly, to ensure the quality of the measures. For example, CBI construct scale (Stokburger-Sauer *et al.*, (2012, p. 417) composed of five statements has been adopted and reformulated to social network environment by Kucharska (2017, p.17) who introduced CsnBI as an adaptation from CBI, and stated than online brand identification differs from the offline. Namely, the act of brand identification in social media does not require spending any many and to make it visible, requires easy access to a fan page by one 'click'. Whereas offline consumer making his identification visible must spend money and buy a branded product. So, asking only for identification without clarifying the essence of this acting in a particular context may lead to low-quality answers.

Therefore, pretesting is a critical step in quantitative studies (Babbie, 2013). Respondents, when understanding clearly the essence of statements, deliver better quality data. Another adaptation has been made for self-expressive benefit adapted from Kim *et al.* (2001, p. 202).

Statements have been reformulated to precisely measure the perceived self-expressive benefit of particular brand personality (meaning) via this brand fan page access. Data collection was performed electronically, mainly through the social networking portal Facebook (FB). The convenient method of sampling enabled to reduce the risk of small sample size. The data were collected from November 2016 to March 2017. The final sample size after the elimination of invalid or incomplete questionnaires was 712 cases (see Appendix 2). The data, after positive normality sampling assessment, were analyzed through structural equation modeling.

The Kaiser–Meyer–Olkin (KMO) test and Bartlett’s test of sphericity were performed before running exploratory factor analysis. The KMO measure of sampling adequacy was 0.933, and the significance of Bartlett’s test of sphericity was less than 0.001 - these results are assessed as very good (Kaiser, 1974). The cumulative percentage of total variances extracted by factors was 81%, which is also positive (Hair *et al.*, 2010).

Based on the theoretical model displayed in Figure 1, a measurement and a structural confirmatory factor analysis model were developed to ensure that the used measurement scales performed correctly. The evaluation of model quality started from consistency tests, such as an average of variance extracted (AVE), composite reliability (CR), and Cronbach’s Alpha. Appendix 1 presents detailed information on scales used and reliabilities achieved. For satisfactory discriminant validity, the square root of each construct’s AVE exceeded the correction between any pair of distinct constructs. The results supported the discriminant validity of the measurement model. Table 2 presents details on the reliability measurement.

Place Table 2 about here

The model estimation then proceeded through employing the maximum-likelihood method. The evaluation of the model quality was conducted based on a set of tests, such as Root Mean Error of Approximation (RMSEA) introduced by Stieger and Lind (1980) with the reference value ≤ 0.08 , CMIN/DF (Wheaton, 1977) with the reference ≤ 5 , CFI - Comparative Fit Index (McDonald and Marsh, 1990) with the reference value close to 1, and Hoelter’s (Hoelter, 1983) with the reference $H.05 \geq 200$, using SPSS AMOS 23 software. The empirical model achieved Chi-square = 276,175 and number of degrees of freedom = 82. Table 3 presents the results of the model’s goodness of fit test.

Place Table 3 about here

Based on these results, the model was considered a good fit in relation to the used data. Model reliability level of $Cmin/df=3.37$ can be viewed as positive, with the reference ≤ 5 . Based on the approximation average error RMSEA, the model fit to the data, at 0.058, also met the reference values. Measurements of the goodness of fit were close to 1, which confirmed that the model was of the expected quality. Hoelter's coefficient exceeded 200, which also corroborated the above statements. AVE exceeded 0.77 for all constructs, which was acceptable. Hair *et al.* (2010) suggested that an AVE of 0.5 or higher indicates adequate convergence of the used scales. Cronbach's Alpha test was used to confirm the consistency of the constructs measurement model. The alpha coefficient was higher than 0.91 for all constructs, which was correct (Francis, 2001). The CR was higher than 0.91 for all loadings, which was more than the required minimum of 0.7 (Hair *et al.*, 2010), indicating internal consistency. After achieving a positive model evaluation, the results are presented in the next section.

4. Results

The results prove that *social interaction* and *self-expression*, the highly anticipated benefits of social presence, have a strong influence on the relationships with other customers as well as on brand identification. What is more, customer–other customers relationships and customer–brand identification significantly affect brand community identification, which is perceived as a starting point to voluntary brand value co-creation. The results support all the hypotheses other than the hypothesis five about the positive direct effect of expected self-expression benefit on a customer–other customers relationships. Figure 2 illustrates the results. Table 4 presents details related to verification of the hypotheses.

Place Figure 2 about here

notes: Chi-square(82)=276.175, n=712 $p<0.001$, ML, standardised results, RMSEA =0.058 (90%CI=0.05-0.058), CFI=0.982, TLI=0.976, ns (non-significant result)

Place Table 4 about here

Detected mediations are the most significant aspect of the results. Mentioned direct effect of expected self-expression benefit on a customer–other customers' relationships has not been noted, but the indirect effect, mediated by consumer brand identification is strong. Understanding the mediations in the structure of the presented relationships is crucial for implementing the expected social presence benefits in business models. According to Hair *et*



al. (2017), mediation can be defined as a third variable supporting the relationship between two other variables, thus causing an indirect effect between them. When the direct relationship is insignificant, the observed mediation is full (as it was described above). When both direct and indirect relationships are significant, partial mediation can be observed. Table 5 presents details and characteristics of detected mediations.

Place Table 5 about here

The results indicate that customer–customer relationships and customer–brand identification are key mediators between the expected social media presence benefits and online brand community identification. Study finding makes it possible to identify key social drivers (self-expression and social interaction) and key mediators (brand identification and customer–customer relationships) as principal, starting factors potentially contributing to voluntary value co-creation. In fact, there is not a better theoretical and methodological alternative to mediation to demonstrate the proposed conceptual relationships. To achieve the aim of the study, i.e., to understand social drivers and mediators of brand community and implement them in business models, a path of action has been created. As showed in Table 6, to translate the study’s survey results to practice, survey steps were analyzed, business aims were formulated, and a frame of action was proposed. STEP 1: resulting from the identification of social drivers, it presents a recommendation which says that generating brand content useful for customer self-expression and social interaction helps attract a brand’s audience. STEP 2: resulting from the mediation analysis, it presents a recommendation for customer engagement which says that enhancing consumer –brand identification and deep customer –customer relationships enhance social bonds and transform an audience into a community. STEP 3: resulting from the analysis of online community identification antecedents, it presents a recommendation for the convergence of identities and values in the social media triangle of key online brand community actors, namely, the brand–consumer–community (BCC) triangle. Enhancing online brand community identification is fundamental, starting point for potential voluntary value co-creation.

Place Table 6 about here

Based on the “theory–practice” bridge created in Table 6, the BCC-triangle model presented in Figure 3 was developed.

Place Figure 3 about here

Source: author's study based on the described results and Kozinets *et al.*, (2010), McCarthy *et al.* (2014), Lamberton and Stephen (2016), Kannan and Li, (2017), Black and Velotsou (2017).

This model illustrates the value convergence/extension between customer, community, and brand. These three actors, concerning the study's results, constitute a frame for the co-creation of value. The results contribute to the understanding of the meaning of online recommendation systems and their use in the under-researched context of business models in which commercial transactions can happen if recommended by other trusted consumers (Lepkowska-White, 2013). The results enabled to formulate guidelines presented in Table 6 and the BCC-triangle model (Figure 3) and, accomplish the aim of the study, namely, understanding social mechanisms of brand community identification which constitute the starting point for desired co-creation and capturing value. Expected social presence benefits are essential to enable the circulation of value between the customer, brand, and community to gain the brand value co-creation benefits desired by companies.

5. Discussion and implications

The aim of this study was first to identify social drivers and mediators to understand social mechanisms of identification with a brand community as a starting point for co-creation and capturing value, and next to present how these social mechanisms can be effectively employed in business models in order to make consumers' relationship with the community stronger and profitable.

Digital brand experience based on various interactions generated by the business connected with a particular brand (Forudi *et al.*, 2018; Oh *et al.*, 2007; Verhoef *et al.*, 2009) leads to a financial value (Ramaswamy and Ozcan, 2016). As Bharti *et al.* (2014, p. 416) stressed: "since the customer is the axis around which the entire value co-creation process revolves and it is the marketer who facilitates this process." Thus, understanding the drivers and mediations in the structure of social media brand relations is crucial for facilitating value co-creation and implementing its social mechanisms in business models. The expected social presence benefits in the business model can provide potential clients with a positive brand experience through interactions with other customers and with the brand.

A question was asked in the introduction section of this paper that is significant to many marketers, namely, "What drives and mediates consumer-community interactions?" This

study helped formulate the answer: online brand communities contribute to the business model by generating social presence benefits that drive these communities. According to Holliman and Rowley (2014), the example of such benefits is meaningful content which is valuable and useful to the audience and which helps its users to complete a task or solve a problem. As this study shows, it is the content which enables the users to express their personality and provides interaction. For instance, one of the most favorite kinds of postings which serve as a tool for personal branding is a selfie. (Lowe-Calverley and Grieve, 2018). Digital business models need to satisfy the need for social presence. Namely, business models need to establish a value for the customer not only based on the utility of the offer, which is fundamental, but also by including social presence benefits which are tremendous in social media as customers do not need to spend any money to transfer meaning from brands. They can use their image as they wish without incurring any expenditure, which is impossible in the real world. Based on the above, it is possible to differentiate between a community and an audience. The group that was persuaded through a social campaign to like/follow the brand on social media without any earlier bond with the brand (neither attitudinal nor behavioral) can be considered an audience. The group of the brand's followers interested in the brand but who are not yet customers, or are (but not very) attitudinally loyal, or view the brand as aspirational and would like to become customers eventually can be considered part of the community of real fans and loyal buyers. Thus, social presence benefits can help transform an audience into a community, engage, and create the value. This simplified answer for the second question asked in the introduction: how social media presence benefits and mediators should be considered when designing business models?" comes from study findings analysis described in Table 6.

The all general managerial guidelines were presented in Table 6 and described in the results section. But is worth to highlight that the detailed managerial implications depend on the industry, the particular brand's position, and the level of community maturity, size, demography, and psychography of community members, their interests, lifestyles, ethnic orientation, social class, and extent of shared history, among other factors (Dessart *et al.*, 2015; Kozinets, *et al.*, 2010). Moreover, it can be the subject of further studies regarding social media strategies. Crucial is the fact scientifically proved earlier by other studies (Anker *et al.*, 2015; Ellahi and Bokhari, 2013; Hshieh and Wei, 2017; Laroche *et al.*, 2012; Muñiz and O'Guinn, 2001; Payne *et al.*, 2009) that brand community enables to create value. Detailed answers to questions: "what is the value?" and "how to deliver it?" must be given by

managers after a thorough analysis of the BCC-triangle rules based on their business context. The importance of factors, such as locating a business—virtually or really, or B2B or B2C—is considerable. The mission of virtual brand community value co-creation varies in view of not only digital marketing strategy or even general marketing strategy but also the strategy of the business as a whole. Context, competitors, collaborators, and culture, according to Kannan and Li (2017), determine the details.

The main contribution of this study to the literature on online brand communities is the presentation and empirical verification of pivotal social mechanisms of brand community identification considered as a starting point to potential voluntary co-creation and capturing value based on the social presence theory. Algharabata *et al.* (2018), Mirkovski *et al.* (2018), and Osei-Frimpong and McLeanb (2018) stressed that social presence influences media brand engagement, which is essential for the success of brands' social media strategies (Kabadayi and Price, 2014). The findings of the present study explain the mechanism of social presence motives for community identification. What is more, the discovery that consumer-consumer bond, as a mediator, is the pivotal point of consumer-brand and brand community identification constitutes a paradox when we compare it with the conclusions of Muñiz and Schau (2007) and Cova and White (2010) who stressed that companies consider strong communities dangerous because of the risk of losing control over brand creation. On the one hand, active communities with strong relationships between members are the way to create brand value, on the other hand, they are dangerous by giving customers much more power over brands than organizations are ready to share. Based on the presented findings, and findings of Cova and Pace, (2006), Cova and Dalli, (2009), Cova and Paraque, (2010), Cova and White (2010) and Cova, Dalli, and Zwick, (2011) - community brand identification leads to brand value co-creation there is no other way to create the value via community than include customer-customer relationships into business models. To summarize, the new knowledge of these findings deals with ways to implement social presence benefits in business models.

Another interesting point for the discussion is that, based on the descriptive statistics presented in Appendix 1, all of the independent measures are around the midpoint of 7-point Likert scale, but the dependent measure of community identification has a mean of 2.60 and the median of 3, which is dramatically below the midpoint. This result suggests that there is little community identification among our survey respondents. It is worthy of a further discussion. As it was pointed out by Reed II *et al.* (2012), identification is the first step to



community engagement and commitment (that is why community brand identification is considered as fundamental point to co-creation). In light of all the above – it is not easy to implement online brand communities into business models because social media users are passive and not as committed as they are in reality. They do not feel to be a part of a community and do not identify with it (as it is proved by low mean and median of CI), so there is a low chance on engagement and voluntary value co-creation through this passive group. Morrison *et al.* (2013) highlighted that a majority of online brand community users are passive “lurkers.” According to the findings of this study, if companies want to implement online brand communities into business models and co-create brand value effectively, they need to support and include customer-customer relationships in business models. These relationships are essential, to transform the particular audience into the community: to enhance online brand community identification, which is vital for engagement in value co-creation.

6. Limitations and future research

This research is not without limitations. As regards the sample, the convenience method gathered participants at the ages of 18 to 34, which means that the sample represents a certain generation and not an entire population. Mainstream representation is crucial for effective online community management. However, a complete picture of the perception of all users regarding benefits from social presence is important for competent management. For example, Morrison *et al.* (2013) highlighted that a majority of online brand community users are passive “lurkers.” When examining motives for being active, the present study focused on active users who obviously form a minority. A similar situation is when it comes to restricting the selection of the study's respondents to users who had joined any brand page on social media to achieve the assessment of the meaning of social presence motives by brand community members. The convenience method seemed to be the best tool for an effective gathering of data, beneficial in gaining understanding in terms of this particular subject. Thus, to expand knowledge regarding the whole population, further research should include an extended age range of respondents. Cross-population social media studies are very interesting. However, this area is still not sufficiently explored. When elaborate the mentioned limitation, of dominating (87%) representation of Millennials, is worth to highlight based on statista.com*** that young users aged 18-34 is a group which is more likely to use Facebook (that is why the sampling process focused on people at this age). It is a serious limitation when we think about a general population, but not as significant when we think about the



population of social media users. Facebook is a leading social media platform worldwide (statista.com ***). In addition, this study does not include any control variables or moderators, which would make for an interesting area for further research. Age, ethnicity, social class, and gender, as well as brand industry and `brand community maturity and size, may play important roles and should be tested in the future in the presented context.

7. General conclusion

Prior results and the discussion included in this paper have led to the conclusion that the key social drivers (self-expression and social interaction) and the key mediators (brand identification and customer-other customers identification with a brand community) constitute a BCC-triangle framework for co-creation of value using brand community identification as a proxy. Customer, brand, and community are the main actors, thanks to which value can be created and shared. Thus, successful digital business models need to respect the indissolubility of these three and treat them as a complete "body of value." Black and Veloutsou (2017) used participant ethnography method to identify brand-individual-community identities triangle and pointed out that, when consumers interact with brands, they co-create brand production. The current study developed this idea and proved that customer-customer relationships is significant for community identification and further approximated co-creation. This research integrated theory and practice on social mechanisms and contribution of online brand communities which are essential for creating effective business models. Bridging the theory-praxis gap by offering clear guidelines is important for achieving academic rigor and practical utility (Nenonen *et al.*, 2017; Perea and Brady, 2017). The principal contribution to the science is presenting the identified mediation in the structure of dependencies in one model. The main scientific value of this study is in painting a complete picture of the mediated relationships between the all mentioned variables.

References

- Abfalter, D., Zaglia, M.E. and Mueller, J. (2012), "Sense of virtual community: a follow up on its measurement", *Computer in Human Behavior*, Vol. 28 No. 2, pp. 400–404.
- Achen, R. (2018), "Re-examining a model for measuring Facebook interaction and relationship quality", *Sport, Business and Management: An International Journal*, Vol. 9 No. 3, pp. 255-272.

Algharabata, R., Ranab, N.P, Dwivedib, Y.K, Alalwanc, A.A. and Qasema, Z. (2018), “The effect of telepresence, social presence and involvement on consumer brand engagement: An empirical study of non-profit organizations”, *Journal of Retailing and Consumer Services*, Vol. 40, pp. 139–149.

Alhaj, R. and Rokne, J. (2014), *Encyclopedia of Social Network Analysis and Mining*, Springer, New York.

Anker, T.B., Sparks, L., Moutinho, L. and Grönroos, C. (2015), “Consumer dominant value creation: A theoretical response to the recent call for a consumer dominant logic for marketing”, *European Journal of Marketing*, Vol. 49 No. 3/4, pp. 532–560.

Ashforth, B.E. and Mael, F. (1989), “Social identity theory and the organization”, *Academy of Management Review*, Vol. 14 No. 1, pp. 20-39.

Babbie, E.R. (2013), *The basics of social research*, Wadsworth, Canada.

Bagozzi, R.P. and Dholakia, U.M. (2006), “Antecedents and purchase consequences of customer participation in small group brand communities”, *International Journal of Research in Marketing*, Vol. 23, pp. 45 -61.

Bagozzi, R.P., Bergami, M., Marzocchi, G.L. and Morandin, G. (2012), “Customer-organization relationships: Development and test of a theory of extended identities”, *Journal of Applied Psychology*, Vol. 97, pp. 63-76.

Balmaceda, J.M., Schiaffino S. and Godoy D. (2014), “How Do Personality Traits Affect Communication Among Users in Online Social Networks?”, *Online Information Review*, Vol. 38 No. 1, pp. 136-153.

Barwise, P., Higson, C., Likierman, A. and Marsh P. (1990), “Brands as Separable Assets”, *Business Strategy Review*, Vol. 1 No. 2, pp. 43-59.

Bauer, R. and Gegenhuber, T. (2015), “Crowdsourcing: Global search and the twisted roles of consumers and producers”, *Organization*, Vol. 22 No. 5, pp. 661–681.

Baumgarth, C. (2010), “Living the brand: brand orientation in the business-to-business sector”, *European Journal of Marketing*, Vol. 44, pp. 653–671.

Belk, R.W. (2013), “Extended self in a digital world”, *Journal of Consumer Research*, Vol. 40 No. 3, pp. 477-500.

Bharti, K., Agrawal, R. and Sharma, V. (2014), “What drives the customer of world’s largest market to participate in value co-creation?”, *Marketing Intelligence and Planning*, Vol. 32 No. 4, pp. 413-435.

Black, I. and Veloutsou, C. (2017), “Working consumers: Co-creation of brand identity, consumer identity and brand community identity”, *Journal of Business Research*, Vol. 70, pp. 416–429.

Carlson, B.D., Suter, T.A. and Brown, T.J. (2008), “Social versus psychological brand community: The role of psychological sense of brand community”, *Journal of Business Research*, Vol. 61, pp. 284–291.



Chu, K-M. and Chan, H-Ch. (2009), "Community based innovation: its antecedents and its impact on innovation success", *Internet Research*, Vol. 19 Issue: 5, pp. 496-516.

Coelho, P.S., Rita, P. and Santos, Z.R. (2018), "On the relationship between consumer-brand identification, brand community, and brand loyalty", *Journal of Retailing and Consumer Service*, Vol. 43, pp. 101-110.

Cova, B. and Dalli, D. (2009), "Working consumers: The next step in marketing theory?", *Marketing Theory*, Vol. 9 No. 3, pp. 315-339.

Cova, B. and Pace, S. (2006), "Brand community of convenience products: New forms of customer empowerment – The case 'my Nutella is community'", *European Journal of Marketing*, Vol. 40 No. 9/10, pp. 1087-1105.

Cova, B. and Paraque, B. (2010), *When brand community and brand valuation collide: A case study*, Proceedings of the 6th international conference thought leaders in Brand Management, Lugano, April 18-20.

Cova, B. and White, T. (2010), "Counter-brand and alter-brand communities: The impact of Web 2.0 on tribal marketing approaches", *Journal of Marketing Management*, Vol. 26 No. 3/4, pp. 256-270.

Cova, B., Dalli, D. and Zwick, D. (2011), "Critical perspectives on consumers' role as 'producers': Broadening the debate on value co-creation in marketing processes", *Marketing Theory*, Vol. 11 No. 3, pp. 231-241.

Cummins, S., Peltier, J.W., Schibrowsky, J.A. and Nill, A. (2013), "Consumer behavior in the online context", *Journal of Research in Interactive Marketing*, Vol. 8 No. 3, pp. 169-202.

Davis, R., Piven, I. and Breazeale, M. (2014), "Conceptualizing the brand in social media community: The five sources model", *Journal of Retailing and Consumer Services*, Vol. 21, pp. 468-481.

Dessart, L., Veloutsou, C. and Morgan-Thomas, A. (2015), "Consumer engagement in online brand communities: a social media perspective", *Journal of Product & Brand Management*, Vol. 24 Issue: 1, pp. 28-42.

DeVellis, R. (2017), *Scale development. Theory and Applications*, Sage.

Dholakia, U.M., Bagozzi, R.P. and Klein Pearob, L. (2004), "A social influence model of consumer participation in network- and small-group-based virtual communities", *International Journal of Research in Marketing*, Vol. 21, pp. 241-263.

Doster, L. (2013), "Millennial teens design and redesign themselves in online social networks", *Journal of Consumer Behaviour*, Vol. 12 No. 4, pp. 267-279.

Ellahi, A. and Bokhari, R.H. (2013), "Key quality factors affecting users' perception of social networking websites", *Journal of Retail and Consumer Service*, Vol. 20 No. 1, pp. 120-129.

Ferrand, A. and McCarthy, S. (2009), *Marketing the Sports Organisation: Building Networks and Relationships*, Routledge, New York, NY.

Forudi, P., Gupta, S., Sivarajah, U. and Broderick, A. (2018), "Investigating the effects of smart technology on customer dynamics and customer experience", *Computers in Human Behavior*, Vol. 80, pp. 271-282.

Francis, G. (2001), *Introduction to SPSS for Windows*, 3rd ed., Pearson Education Australia, Sydney.

Gyrd-Jones, R.I. and Kornum, N. (2013), "Managing the co-created brand: Value and cultural complementarity in online and offline multi-stakeholder ecosystems", *Journal of Business Research*, Vol. 66, pp. 1484-1493.

Habibi, M.R., Laroche, M. and Richard, M.O. (2014), "The roles of brand community and community engagement in building brand trust on social media", *Computers in Human Behavior*, Vol. 37, pp. 152-161.

Haggège, M., Gauthier, C. and Rüling, Ch.C. (2017), "Business model performance: five key drivers", *Journal of Business Strategy*, Vol. 38 No. 2, pp. 6-15.

Hair, J.F, Hult, G.T.M., Ringle, Ch.M. and Sarstedt, M. (2017), *A primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Sage Publications, Inc., Los Angeles.

Hair, J.F., Anderson, R.E., Babin, B.J. and Black, W.C. (2010), *Multivariate data analysis: A global perspective*, Upper Saddle River, NJ, Pearson.

Hajli, N., Shanmugam, M., Papagiannidis, S., Zahay, D. and Richard, M-O. (2017), "Branding co-creation with members of online brand communities", *Journal of Business Research*, Vol. 70, pp. 136-144.

Hansen, E.G., Grosse-Dunker, F. and Reichwald, R. (2009), "Sustainability innovation cube - a framework to evaluate sustainability-oriented innovations", *International Journal of Innovation Management*, Vol. 13 No. 04, pp. 683-713.

Heinonen, K. (2011), "Consumer activity in social media: Managerial approaches to consumers' social media behaviour", *Journal of Consumer Behaviour*, Vol. 10 No. 6, pp. 356-364.

Heinrichs, H. (2013), "Sharing Economy: A Potential New Pathway to Sustainability", *GAIA - Ecological Perspectives for Science and Society*, Vol. 22 No. 4, pp. 228-231.

Hennig-Thurau, T., Malhotra, E.C., Frieger, C., Gensler, S., Lobschat, L., Rangaswamy, A. and Skiera, B. (2010), "The impact of new media on customer relationships", *Journal of Service Research*, Vol. 13 No. 3, pp. 311-330.

Hinson, R., Boateng, H., Renner, A. and Kosiba, J.P.B. (2019), "Antecedents and consequences of customer engagement on Facebook. An attachment theory perspective", *Journal of Research in Interactive Marketing*, Vol. 13 No. 2, pp. 204-226.

Hoelter, J.W. (1983), "The analysis of covariance structures goodness-of-fit indices", *Sociological Methods & Research*, Vol. 11 No. 3, pp. 325-344.

Hogg, M.A. and Abrams, D. (1990), *Social Motivation, Self-Esteem and Social Identity*, in Abrams, D. and Hogg, M.A. (Eds.), *Social Identity Theory: Constructive and Critical Advances*, London: Harvester Wheatsheaf, pp. 28-47.

Hollebeek, L.D. (2011), "Exploring Customer Brand Engagement: Definition and Themes", *Journal of Strategic Marketing*, Vol. 19 No. 7, pp. 555–73.

Hollebeek, L.D. (2012), "The Customer Engagement/Value Interface: An Exploratory Investigation", *Australasian Marketing Journal*, Vol. 21 No. 1, pp. 17–24.

Hollebeek, L.D., Glynn, M.S. and Brodie, R.J. (2014), "Consumer brand engagement in social media: Conceptualization, scale development and validation", *Journal of Interactive Marketing*, Vol. 28, pp. 149–165.

Holliman, G. and Rowley, J. (2014), "Business to business digital content marketing: marketers' perceptions of best practice", *Journal of Research in Interactive Marketing*, Vol. 8 Issue: 4, pp. 269-293.

Hsieh, P.L. and Wei, S.L. (2017), "Relationship formation within online brand communities: Bridging the virtual and the real", *Asia Pacific Management Review*, Vol. 22, pp. 2-9.

Hu, D., Zhao, J.L. and Cheng, J. (2012), "Reputation management in an open source developer social network: An empirical study on determinants of positive evaluations", *Decision Support Systems*, Vol. 53 No. 3, pp. 526–533.

Hudson, S., Huang, L., Roth, M.S. and Madden, T.J. (2016), "The influence of social media interactions on consumer–brand relationships: A three-country study of brand perceptions and marketing behaviors", *International Journal of Research in Marketing*, Vol. 33, pp. 27–41.

Hung, H.-Y., F. and Lin, T.-L. (2015), "A moderated mediation model of consumers' role behaviors in brand communities", *Asia Pacific Management Review*, Vol. 20, pp. 191-200.

Hutter, K., Hautz, J., Dennhardt, S. and Füller, J. (2013), "The impact of user interactions in social media on brand awareness and purchase intention: the case of MINI on Facebook", *Journal of Product & Brand Management*, Vol. 22 Issue: 5/6, pp. 342-351.

Iskoujina, Z., Ciesielska, M., Roberts, J. and Li, F. (2017), "Grasping the business value of online communities", *Journal of Organizational Change Management*, Vol. 30 No. 3, pp. 396-416.

Jahn, B. and Kunz, W. (2012), "How to transform consumers into fans of your brand", *Journal of Service Management*, Vol. 23 No. 3, pp. 344–361.

Joshi, A. and Hanssens, D.M. (2010), "The Direct and Indirect Effects of Advertising Spending on Firm Value", *Journal of Marketing*, Vol. 74 No. 1, pp. 20-33.

Jung, N.Y., Kim, S. and Kim S. (2014), "Influence of consumer attitude toward online brand community on revisit intention and brand trust", *Journal of Retailing and Consumer Services*, Vol. 21, pp. 581–589.

Jung, Y. and Kang, H. (2010), "User goals in social virtual worlds: a means-end chain approach", *Computers in Human Behavior*, Vol. 26 No. 2, pp. 218-225.

Kabadayi, S. and Price, K. (2014), "Consumer – brand engagement on Facebook: liking and commenting behaviors", *Journal of Research in Interactive Marketing*, Vol. 8 No. 3, pp. 203-223.



Kaiser, H.F. (1974), "An index of factorial simplicity", *Psychometrika*, Vol. 39 No. 1, pp. 31–36.

Kamboj, S. and Sarmah, B. (2018b), "Construction and validation of the customer social participation in brand communities scale", *Internet Research*, Vol. 28 Issue: 1, pp. 46-73.

Kamboj, S., Sarmah, B., Gupta, S. and Dwivedi, Y. (2018a). Examining branding co-creation in brand communities on social media: Applying the paradigm of Stimulus-Organism-Response, *International Journal of Information Management*, Vol. 39, pp. 169-185.

Kang, M., Shin, D-H. and Gong, T. (2016), "The role of personalization, engagement, and trust in online communities", *Information Technology & People*, Vol. 29 Issue: 3, pp. 580-596.

Kannan, P.K. and Li, H. (2017), "Digital marketing: A framework, review and research agenda", *International Journal of Research in Marketing*, Vol. 34, pp. 22–45.

Kelley, J.B. and Alden, D.L. (2016), "Online brand community: through the eyes of Self Determination Theory", *Internet Research*, Vol. 26 Issue: 4, pp. 790-808.

Keng, C.J., Pao, C.H., Ting, H.Y. and Chang, N.Y. (2015), "Impact of machine and interpersonal virtual experience combinations on sense of virtual community: the moderating roles of optimum stimulation level and motives for reading customer articulations", *Journal of Electronic Commerce Research*, Vol. 16 No. 1, pp. 34–55.

Kim, C.K., Han, D. and Park, S.B. (2001), "The effect of brand personality and brand identification on brand loyalty: Applying the theory of social identification", *Japanese Psychological Research*, Vol. 43 No. 4, pp. 195–206.

Kim, H., Jin, B. and Park, J.Y. (2011), "Motivations of market mavens for participating in online communities", *International Journal of Electronic Marketing and Retailing*, Vol. 4 No. 1, pp. 62-79.

Kim, W., Jeong, O. and Lee, S. (2010), "On social web sites", *Information Systems*, Vol. 35, pp. 215–236.

Kline, R.B. (2016), *Principles and Practice of Structural Equation Modeling*, The Guilford Press, NY-L.

Kozinets, R.V. (2002), "The Field Behind the Screen: Using Netnography for Marketing Research in Online Communities", *Journal of Marketing Research*, Vol. 39, pp. 61–72.

Kozinets, R.V., Wojnicki, A.C., Wilner, S.J.S. and De Valck K. (2010), "Networked Narratives: Understanding Word-of Mouth Marketing in Online Communities", *Journal of Marketing*, Vol. 74, pp. 71–89.

Kucharska, W. (2017), "Consumer social network brand identification and personal branding. How do social network users choose among brand sites?", *Cogent Business & Management*, Vol. 4, 1315879. <http://dx.doi.org/10.1080/23311975.2017.1315879>

Lamberton, C. and Stephen, A.T. (2016), "A thematic exploration of digital, social media, and mobile marketing Research's evolution from 2000 to 2015 and an agenda for future research", *Journal of Marketing*, Vol. 80 No. 6, pp. 146–172.



Laroche, M., Habibi, M.R., Richard, M.-O. and Sankaranarayanan, R., (2012), "The effects of social media based brand communities on brand community markers, value creation practices, brand trust and brand loyalty", *Computer in Human Behavior*, Vol. 28 No. 5, pp. 1755–1767.

Lee, C.S. and Ma, L. (2012), "News sharing in social media: The effect of gratifications and prior experience", *Computers in Human Behavior*, Vol. 28 No. 2, pp. 331–339.

Lepkowska-White. E. (2013), "Are they listening? Designing online recommendations for today's consumers", *Journal of Research in Interactive Marketing*, Vol. 7 No. 3, pp. 182 – 200.

Leung, D., Law, R., van Hoof, H. and Buhalis, D. (2013), "Social Media in Tourism and Hospitality: A Literature Review", *Journal of Travel and Tourism Hospitality*, Vol. 30 No. 1-2, pp. 3-22.

López, M., Sicilia, M. and Moyeda-Carabaza, A.A. (2017), "Creating identification with brand communities on Twitter: The balance between need for affiliation and need for uniqueness", *Internet Research*, Vol. 27 Issue: 1, pp. 21-51.

Loureiro, S.M.S., Pires, A.R. and Kaufmann, H.R. (2015), "Creating value for customers through engagement and participation in brand communities", *International Journal of Business Performance Management*, Vol. 16 No. 2-3, pp. 114-132.

Luo, N., Zhang, M., Hu, M. and Wang, Y. (2016), "How community interactions contribute to harmonious community relationships and consumers' identification in online brand community", *International Journal of Information Management*, Vol. 36 No. 5, pp. 673–685.

Macaulay, L.A., Keeling, K., Mcgoldrick, P., Dafoulas, G., Kalaitzakis, E. and Keeling, D. (2007), "Co-evolving e-tail and on-line communities: conceptual framework", *International Journal of Electronic Commerce*, Vol. 11 No. 4, pp. 53-77.

Mackenzie, C. (2008), *Introduction: Practical identity and narrative agency*, in: Mackenzie, C. and Atkins K. (Eds.), *Practical identity and narrative agency*, New York: Routledge, pp. 1–28.

Martinez-Lopez, F.J., Anaya-Sanchez, R., Molinillo, S., Aquilar-Illescas, R. and Esteban-Millat, I. (2017), "Consumer engagement in an online brand community", *Electronic Commerce Research and Applications*, Vol. 23, pp. 24–37.

McAlexander, J.H., Schouten, J.W. and Koenig, H.F. (2002), "Building Brand Community", *Journal of Marketing*, Vol. 66 No. 1, pp. 38-54.

McCarthy, J., Rowley, J., Ashworth, C.J. and Pioch, E. (2014), "Managing brand presence through social media: the case of UK football clubs", *Internet Research*, Vol. 24 Issue: 2, pp. 181-204.

McCracken, G.D. (1990), *Culture and consumption: New approaches to the symbolic character of consumer goods and activities*, Indiana University Press.

McDonald, R.P. and Marsh, H.W. (1990), "Choosing a multivariate model: Noncentrality and goodness of fit", *Psychological Bulletin*, Vol. 107 No. 2, pp. 247-255.

Merriam-Webster Dictionary, (2018), <https://www.merriam-webster.com/dictionary/identification> (accessed 31 December 2018).

Merz, M.A., He, Y. and Vargo, S.L. (2009), "The evolving brand logic: A service-dominant logic perspective", *Journal of the Academy of Marketing Science*, Vol. 37, pp. 328–344.

Mirkovski, K., Jia, Y., Liu, L. and Chen, K. (2018), "Understanding microblogging continuance intention: The directed social network perspective", *Information Technology & People*, Vol. 31 Issue: 1, pp. 215-238.

Morrison, M.A., Cheong, H.J. and McMillan, S.J. (2013), "Posting, Lurking, and Networking: Behaviors and Characteristics of Consumers in the Context of User-Generated Content", *Journal of Interactive Advertising*, Vol. 13 Issue: 2, pp. 97-108.

Muñiz, A. and Schau, H.J. (2007), "Vigilante marketing and consumer-created communications", *Journal of Advertising*, Vol. 36 No. 3, pp. 35–50.

Muñiz, A.M. and O'Guinn, T.C. (2001), "Brand communities", *Journal of Consumer Research*, Vol. 27 No. 4, pp. 412–432.

Nenonen, S., Brodie, R.J., Storbacka, K. and Peters, L.D. (2017), "Theorizing with managers: how to achieve both academic rigor and practical relevance?", *European Journal of Marketing*, Vol. 51 Issue: 7/8, pp. 1130-1152.

Neumeyer, X. and Santos, S.C. (2018), "Sustainable business models, venture typologies, and entrepreneurial ecosystems: A social network perspective", *Journal of Cleaner Production*, Vol. 172, pp. 4565-4579.

Oh, H., Fiore, A.M. and Jeoung, M. (2007), "Measuring experience economy concepts: Tourism applications", *Journal of Travel Research*, Vol. 46 No. 2, pp. 119-32.

Osei-Frimpong, K. and McLeanb, G. (2018), "Examining online social brand engagement: A social presence theory perspective", *Technological Forecasting & Social Change* – in press <https://doi.org/10.1016/j.techfore.2017.10.010>

Pagani, M., Hofacker, C.F. and Goldsmith, R.E. (2011), "The influence of personality on active and passive use of social networking sites", *Psychology and Marketing*, Vol. 28 No. 5, pp. 441-456.

Payne, A., Storbacka, K., Frow, P. and Knox, S. (2009), "Co-creating brands: Diagnosing and designing the relationship experience", *Journal of Business Research*, Vol. 62, pp. 379–389.

Perea, E. and Brady, M. (2017), "Research rigor and the gap between academic journals and business practitioners", *Journal of Management Development*, Vol. 36 No. 8, pp. 1052-1062.

Phillips, E. (2015), "Retailers scale up online sales distribution networks", *The Wall Street Journal*, November 17, available at: <http://www.wsj.com/articles/retailers-scale-up-online-sales-distribution-networks-1447792869> (accessed 1 February 2018).

Phua, J., Jin, S.V. and Kim, J.J. (2017), "Gratifications of using Facebook, Twitter, Instagram, or Snapchat to follow brands: The moderating effect of social comparison, trust, tie strength, and network homophily on brand identification, brand engagement, brand commitment, and membership intention", *Telematics and Informatics*, Vol. 34 No. 1, pp. 412–424.

Piyathasanan, B., Mathies, Ch., Wetzels, M., Patterson, P.G. and de Ruyter, K. (2015), "A Hierarchical Model of Virtual Experience and Its Influences on the Perceived Value and Loyalty of Customers", *International Journal of Electronic Commerce*, Vol. 19 No. 2, pp. 126-158.

Pongsakornrungsilp, S. and Schroeder, J. (2011), "Understanding value co-creation in a consuming brand community", *Marketing Theory*, Vol. 11 No. 3, pp. 303–324.

Porter, C.E. (2004), "A typology of virtual communities: a multi-disciplinary foundation for future research", *Journal of Computer-Mediated Communication*, Vol. 10 No. 1.

Porter, C.E., Devaraj, S. and Sun, D. (2013), "A test of two models of value creation in virtual communities", *Journal of Management Information Systems*, Vol. 30 No. 1, pp. 261-292.

Prahalad, C.K. and Ramaswamy, V. (2004), "Co-creation experiences: The next practice in value creation", *Journal of Interactive Marketing*, Vol. 18 No. 3, pp. 5–14.

Quinton, S. (2013), "The community brand paradigm: A response to brand management's dilemma in the digital era", *Journal of Marketing Management*, Vol. 29 No. 7/8, pp. 912–923.

Ramaswamy, V. (2008), "Co-creating value through customers' experiences: the Nike case", *Strategy & Leadership*, Vol. 36, pp. 9–14.

Ramaswamy, V. (2009), "Co-creation of value – towards an expanded paradigm of value creation", *Marketing Review St. Gallen*, Vol. 26, pp. 11–17.

Ramaswamy, V. (2011), "It's about human experiences... and beyond, to co-creation", *Industrial Marketing Management*, Vol. 40, pp. 195–196.

Ramaswamy, V. and Ozcan, K. (2014), *The co-creation paradigm*, Stanford, CA, Stanford University Press.

Ramaswamy, V. and Ozcan, K. (2016), "Brand value co-creation in a digitalized world: An integrative framework and research implications", *International Journal of Research in Marketing*, Vol. 33, pp. 93-106.

Reed II, A., Forehand, M.R., Puntoni, S. and Warlop, L. (2012), "Identity-based consumer behavior", *International Journal of Research in Marketing*, Vol. 29, pp. 310-321.

Rowley, J. (2009), "Online branding strategies of UK fashion retailers", *Internet Research*, Vol. 19 Issue: 3, pp. 348-369.

Ruane, L. and Wallace, E. (2015), "Brand tribalism and self-expressive brands: social influences and brand outcomes", *Journal of Product & Brand Management*, Vol. 24 No. 4, pp. 333-348.

Saboo, A.R, Kumar, V. and Ramani, G. (2016), "Evaluating the impact of social media activities on human brand sales", *International Journal of Research in Marketing*, Vol. 33 No. 3, pp. 524-541.

Schaltegger, S., Lüdeke-Freund, F. and Hansen, E.G. (2016), "Business models for sustainability: a co-evolutionary analysis of sustainable entrepreneurship, innovation, and transformation", *Organisation & Environment*, Vol. 29 No. 3, pp. 264-289.



Schau, H.J., Muñiz Jr, A.M. and Arnould, E.J. (2009), “How brand community practices create value”, *Journal of Marketing*, Vol. 73 No. 5, pp. 30-51.

Short, J., Williams, E. and Christie, B. (1976), *The social psychology of telecommunications*, London, John Wiley and Sons.

Skålén, P., Pace, S. and Cova, B. (2015), "Firm-brand community value co-creation as alignment of practices", *European Journal of Marketing*, Vol. 49 Issue: 3/4, pp. 596-620.

Spaulding, T.J. (2010), “How can virtual communities create value for business?”, *Electronic Commerce Research and Applications*, Vol. 9 No. 1, pp. 38-49.

Statista, (2018), “Distribution of facebook users worldwide as of April 2018, by age and gender”, available at: <https://www.statista.com/statistics/376128/facebook-global-user-age-distribution/>, (accessed 23 April 2018).

Statista.com (2017), *Social network advertising revenue from 2014 to 2017*, available at: <https://www.statista.com/statistics/271406/advertising-revenue-of-social-networks-worldwide/> <https://www.statista.com/chart/2169/growth-of-average-time-spent-per-day-with-major-media/> (accessed 1 February 2018).

Steiger, J.H. and Lind, J.C. (1980), “Statistically based tests for the number of common factors”, *Annual Meeting of the Psychometric Society*, Iowa City, IA, 758.

Stokburger-Sauer, N., Ratneshwar, S. and Sen, S. (2012), “Drivers of consumer–brand identification”, *International Journal of Research in Marketing*, Vol. 29 No. 4, pp. 406–418.

Tajfel, H. and Turner, J.C. (1986), “The social identity theory of intergroup behavior”, in Worchel, S. and Austin, W.G. (Eds), *Psychology of Intergroup Relations*, Nelson-Hall, Chicago, IL, pp. 7-24.

Tonteri, L., Kosonen, M. Ellonen, H-K. and Tarkiainen, A. (2011), “Antecedents of an experienced sense of virtual community”, *Computers in Human Behavior*, Vol. 27, pp. 2215–2223.

Tsimonis, G. and Dimitriadis, S. (2014), “Brand strategies in social media”, *Marketing Intelligence & Planning*, Vol. 32 No. 3, pp. 328-344.

Turner, J.C. and Oakes, P.J. (1986), “The significance of the social identity concept for social psychology with reference to individualism, interactionism and social influence”, *British Journal of Social Psychology*, Vol. 25, pp. 237–252.

Veloutsou, C. (2009), “Brands as relationship facilitators in consumer markets”, *Journal of Marketing Theory*, Vol. 9 No. 1, pp. 127–130.

Veloutsou, C. and Arvaniti, G.M. (2016), The Role of Online Social Interaction in the Recommendation of a Brand Community, in: Obal, M., Krey N., Bushardt, C. (Eds.), *Let's Get Engaged! Crossing the Threshold of Marketing's Engagement Era, Developments in Marketing Science*, Proceedings of the Academy of Marketing Science. Springer, Cham.

Verhoef, P.C., Lemon, K.N., Parasuraman, A., Roggeveen, A., Tsiros, M. and Schlesinger, L.A. (2009), “Customer experience creation: Determinants, dynamics and management strategies”, *Journal of Retailing*, Vol. 85 No. 1, pp. 31-41.



Vohra, A. and Bhardway, N. (2019), “Customer engagement in an e-commerce brand community. An empirical comparison of alternate models”, *Journal of Research in Interactive Marketing*, Vol. 13 No. 1, pp. 2-25.

Wang, Y., Shi, J., Ma, S., Shi, G. and Yan, L. (2012), “Customer Interactions in Virtual Brand Communities: Evidence from China”, *Journal of Global Information Technology Management*, Vol. 15 No. 2, pp. 46-69.

Wearesocial.com (2017), *Digital in 2017 Global Overview Report 2017*, available at: <https://wearesocial.com/special-reports/digital-in-2017-global-overview> (accessed 31 January 2018).

Wheaton, D.E. (1977), *Assessing reliability and stability in panel models*, Sociological methodology, San Francisco, Jossey-Bass.

Wilcox, K. and Stephen, A.T. (2013), “Are close friends the enemy? Online social networks, self-esteem, and self-control”, *Journal of Consumer Research*, Vol. 40 No. 1, pp. 90-103.

Wu, S.Ch. and Fang W.Ch., (2010), “The effect of consumer-to-consumer interactions on idea generation in virtual brand community relationships”, *Technovation*, Vol. 30, pp. 570–581.

Yoo, S. and Pauwels, K. (2007), “The generalized long-term impact of marketing”, Working Paper, Korea University.

Zhang, J.J., Lichtenstein, Y. and Grander, J. (2015), *Designing Scalable Digital Business Models*, in: Baden-Fuller, Ch., Mangematin, V. (Ed.), *Business Models and Modelling Advances in Strategic Management*, Vol. 33, Emerald Group Publishing Limited, pp. 241 – 277.

Zwick, D., Bonsu, S.K. and Darmody, A. (2008), “Putting consumers to work: “Co-creation” and new marketing govern-mentality”, *Journal of Consumer Culture*, Vol. 8 No. 2, pp. 163–196.

Appendix 1: Scales of Measurement, With Their Sources.

Constructs	Items	Factor loading	Mean and median	SD	Constructs measurement validity
Social interaction benefit (adapted from Jahn and Kunz, 2012, p. 360)	I can meet people like me on Brand X fan page	.902	Median=4 Mean=3.94	1,81	AVE=0.80 CR=0.91 Cronbach α =0.92
	I can meet new people like me on this fan page	.928			
	I can interact with people like me on Brand X fan page	.858			
Self-expressive benefit (adapted from Kim <i>et al.</i> , 2001)	Brand X on fan page helps me to express myself	.919	Median=4 Mean=3.91	1,82	AVE=0.81 CR=0.91 Cronbach α =0.93
	Brand X on fan page reflects my personality	.922			
	Brand X on fan page enhances my “self”	.855			
Consumer-other-consumers relationship (adapted from Luo <i>et al.</i> , 2016, p. 683)	I have met wonderful people in the community of Brand X	.853	Median=4 Mean=3.5	1,71	AVE=0.82 CR=0.92 Cronbach α =0.93
	I have a feeling of kinship with the others	.943			
	I have an interest in the community because of the other members	.919			
CBI/CsnBI (adapted from Stokburger-Sauer <i>et al.</i> , 2012, p. 417; Kucharska, 2017, p. 15)	I identify strongly with Brand X on fan page	.867	Median=4 Mean=4.24	1.75	AVE=0.77 CR=0.88 Cronbach α =0.91
	Brand X on fan page embodies what I believe in	.894			
	Brand X on fan page is a part of me	.865			
Community identification (adapted from Luo <i>et al.</i> , 2016, p. 683)	I see myself as a part of the online community	.914	Median=3 Mean=2.6	1,94	AVE=0.86 CR=0.94 Cronbach α =0.95
	If community members planned something, I’d think of it as something “we” would do rather than something “they” do	.937			
	When someone praises this community, it feels like a personal compliment	.93			

Appendix 2: Sample Characteristics

Gender		
Female	403	57%
Male	309	43%
	712	100%

Age		
18–24	375	53%
25–34	245	34%
35–44	34	5%
45–54	54	8%
55–64	2	0%
>65	2	0%
	712	100%

Figure 1

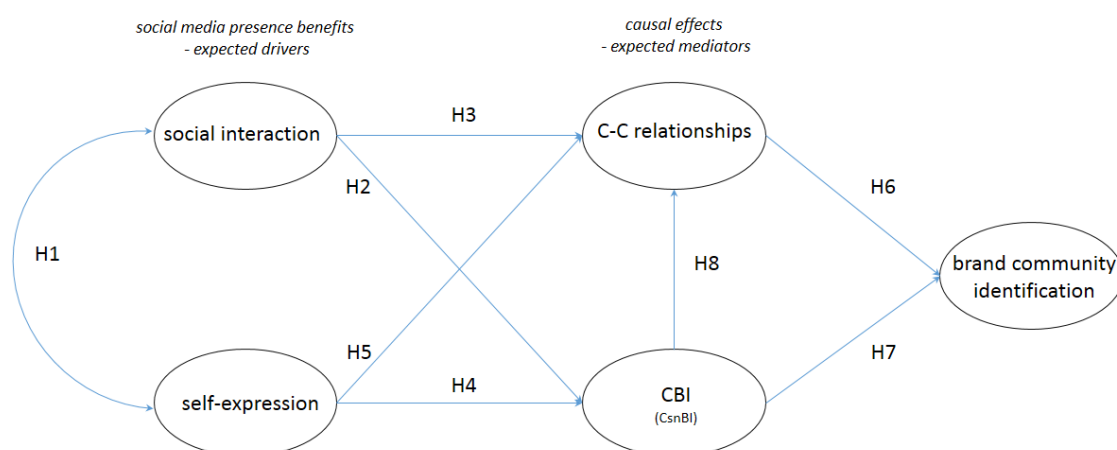


Figure 2

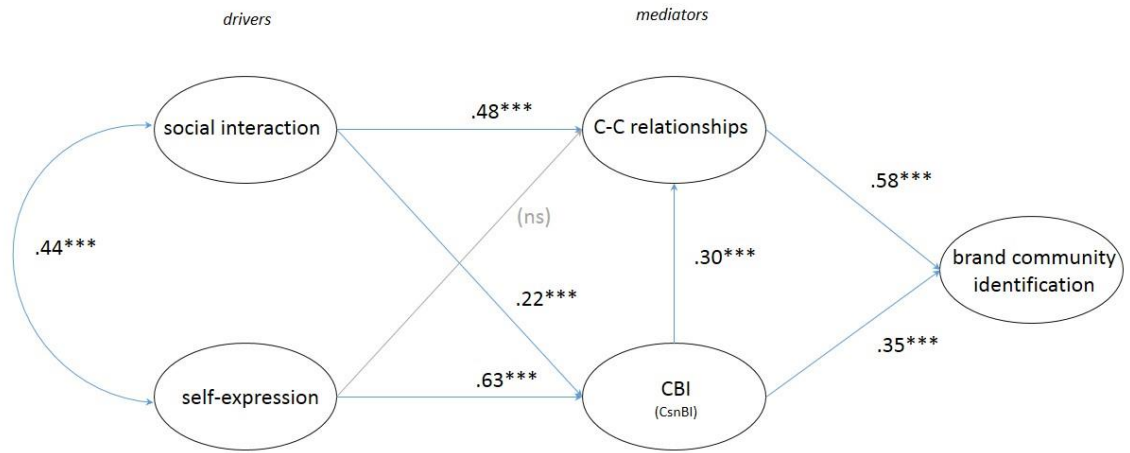


Figure 3

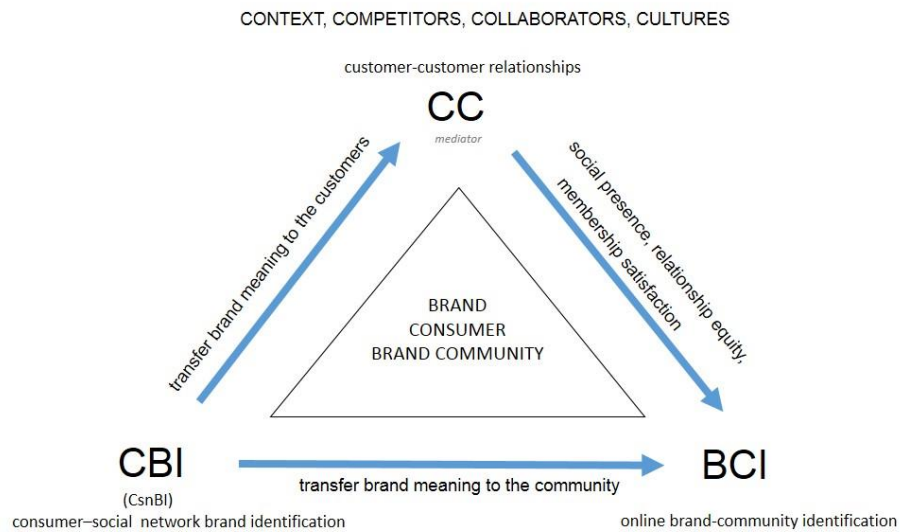


Table 1 Study overview

<p>Theoretical Background</p> <ol style="list-style-type: none"> 1. Digital marketing has more and more influence on long-term value creation in a company (Joshi and Hanssens, 2010). 2. Online communities can offer tangible and intangible values to the business (Iskoujina <i>et al.</i> 2017). Tangible benefits are primarily financial and are related to the sales of products and services. Intangible benefits include those such as positive word-of-mouth, creation of more effective market segments, increasing website traffic, providing better product support and service delivery (Porter, 2004; Spaulding, 2010) or sustaining stakeholder relationships by building trust and in other ways, including increasing brand awareness and commitment, and adding value by sharing the company’s content (Macaulay <i>et al.</i>, 2007). 3. A limited number of studies have focused on commercial opportunities that online communities provide and the ways by which to integrate these opportunities into a coherent business model (Iskoujina <i>et al.</i>, 2017). 4. Consumer identity and brand identification affect brand value co-creation (Skålén <i>et al.</i>, 2015). 5. When consumers interact with brands they co-create brand production: brand identity, reputation and generally support their offer (Black and Veloutsou, 2017). 6. The key challenge for social media managers today is transforming consumer-community interactions into relations remunerative for the company (Coelho <i>et al.</i>, 2018). <p>GAP: a limited number of studies focused on the commercial opportunities that online communities can provide.</p>	
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<p>Research problem</p>	<p>RP: the lack of the listed key factors important for thriving online brand communities’ identification tied directly to practical tips on how and why these elements should be considered when designing business models.</p> <p>Key assumption:</p> <ul style="list-style-type: none"> • Online brand community identification is a starting point for potential voluntary value co-creation. • Pivotal social mechanisms leading to this identification should be taken into account when design business models.
<p>Research questions</p>	<p>RQ1: What factors drive and which mediate online brand community identification?</p> <ul style="list-style-type: none"> • Hypothesized drivers: self-expression and social interaction. • Hypothesized mediators: customer–customer identification and consumer-brand identification. <p>RQ2: Why and, practically how these elements should be considered when designing business models?</p>

Table 2 Factor correlation matrix with square root of the AVE on the diagonal

Construct	AVE	CR	Cronbach α	SI	SE	CBI	CC	CI
<i>social-interaction (SI)</i>	0.80	0.91	0.92	0.90				
<i>self-expression (SE)</i>	0.81	0.91	0.93	0.44	0.90			
<i>consumer-brand identification (CBI)</i>	0.77	0.88	0.91	0.50	0.73	0.88		
<i>customer-other customers (CC)</i>	0.82	0.92	0.93	0.64	0.46	0.56	0.91	
<i>community identification (CI)</i>	0.86	0.94	0.95	0.55	0.52	0.68	0.78	0.93

Table 3 Test results of the model's goodness of fit.

CMIN/DF	RMSEA	CFI	NFI	RFI	IFI	TLI	HOELTER 0.5
3.368	0.058	0.982	0.974	0.967	0.982	0.976	269

Table 4 Hypotheses verification

Hypothesis	β	C.R	p-value	verification
H1. The social interaction and self-expression of a particular social media user are correlated.	0.442	9.869	**	accepted
H2. The high level of social interaction of the particular consumer influence positively on identification with the brand.	0.217	6.454	**	accepted
H3. The highest level of perceived social interaction benefit, the more positive direct influence on the relationships with other customers is observed.	0.483	2.684	**	accepted
H4. The highest level of perceived self-expression benefit is the more positive influence on the identification with the brand	0.629	7.213	**	accepted
H5. The highest level of perceived self-expression benefit the more positive influence on the relationships with other customers.	0.031	0.646	.518	rejected
H6. The highest level of customer-other customers' relationships of a particular brand the strongest influence on this brand community identification is observed.	0.584	7.410	**	accepted
H7. The high level of consumer brand identification, influence positively on the online brand community identification.	0.349	0.932	**	accepted
H8. The highest level of consumer-brand relationship the more positive influence on the relationships with other customers' of this brand.	0.298	.824	**	accepted

Note: ML (maximum likelihood), standardised estimates; * $p < 0.05$ ** $p < 0.01$; *** $p < 0.001$

Table 5 Mediation analysis

Mediation analysed	Total effect	Direct effect	Indirect effect	Mediation type observed
SI -> CBI -> CC	0.548 (0.001)	0.483 (0.001)	0.065 (0.001)	partial
SE -> CBI -> CC	0.219 (0.001)	0.031 (0.525)	0.188 (0.001)	full
CBI -> CC -> CI	0.523 (0.001)	0.349 (0.001)	0.174 (0.001)	partial

Table 6 Steps of action

ANALYSING STEPS		AIMS	HOW TO DO
STEP 1	Social drivers identification	<p>AIM 1:</p> <p>attract audience by giving users opportunity for self-expression and interaction</p>	<p>Generate brand content useful for customers</p> <p>a) self-expression b) social interaction</p> <p>General brand strategy and digital brand strategy must coincide with each another (Kannan and Li, 2017).</p> <p>Brand content should implement the brand's strategic goals and take into account the needs related to the social presence of users at the same time. It should give them a chance of auto-expression and social interactions. These goals must be implemented simultaneously.</p>
STEP 2	Mediaton analysis	<p>AIM 2:</p> <p>enhance brand-consumer and customer-customer social bonds</p>	<p>Generate identification</p> <p>a) brand identification mediation function</p> <p>Self-expression mediated by brand identification leads to stronger identification with others when brand values and personal values of customer coincide with one another and are reflected in the content. According to the theory of the transfer of meaning (McCracken, 1990).</p> <p>Social-interaction mediated by brand identification leads to stronger identification with others when customers share the same mindset, e.g. sense of humour, interest, lifestyle etc. Brand strongly exposes social values which are easy to identify by the audience. According to the theory of the transfer of meaning (McCracken,1990).</p>

			<p>b) customer –customer identification mediation function:</p> <p>Brand identification mediated by the relationship with other customers leads to stronger community identification according to the theory of reference groups (Ashforth and Mael, 1989).</p>
STEP 3	Online brand community identification	<p>AIM 3:</p> <p>transform audience into a community: enhance online brand community identification, which is vital for engagement in value co-creation</p>	<p>Co-create value</p> <p>Value is co-created when there is a convergence of consumer-community-brand identity and values (Black and Veloutsou, 2017).</p>