

# LATENT COMMUNITIES OF DIGITAL PUBLICATIONS: THE ROLE OF EDITORS, FOLLOWERS, AND ADVERTISERS

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**Acknowledgment.** This work was supported by the Junta de Castilla y León (Spain) and the European Regional Development Fund (ERDF) [projects reference VA001B10-1 and VA112P17].

*This is the accepted version of the manuscript: Camarero, C., Rodríguez-Pinto, J. R., & San José-Cabezudo, R. (2018). "Latent communities of digital publications: The role of editors, followers, and advertisers". Telematics and Informatics, 35(5), 1176-1189.*

*The final publication is available at <https://doi.org/10.1016/j.tele.2018.02.001> and <https://doi.org/10.1016/j.tele.2019.05.004>*

## **ABSTRACT**

This research explores how digital publications may be turned into something more than just a meeting point for people who are seeking information and may become a latent community. The paper proposes that the network of editors, followers, and advertisers of digital publications determine the user sense of community towards the publication. While the pattern of connections among editors and followers reinforces the sense of community, advertisers act as intruders who weaken the feasibility of building a community. Data were collected from followers of digital publications. The dynamics of the sense of community is described as a process in which informational value and identification are essential to nurturing readers' soft or hard commitment. Findings indicate that the strong ties between editors and followers as well as the diversity positively impacts on informational value and identification, whereas advertising intrusiveness diminishes the informational value.

**Keywords** – Digital Publications, Sense of Community, Social Networks, Identification, Informational value, Commitment.

## **1. Introduction**

Nowadays, many digital publications and online magazines offer information to consumers concerning several subjects of interest: fashion (fashionista.com), automobiles (motortrend.com), technology (gizmodo.com), food and drink (oola.com), games (gamespot.com), etc. In these publications, we can observe a network of relationships among the three parties: publishers and their editorial team, readers or followers, and advertisers or sponsors. Each contribute to and benefit from the resources embedded within, available through, and derived from said network.

The publication's editors offer information in line with readers' interests, thereby enabling advertisers to reach a large and/or high profile audience of potential consumers for their brands and products. Readers and followers can not only read the contents but can also share and comment on them, and can even have forums for interaction. A sense of community thus emerges among individuals who feel attached to these publications. Individuals who read these digital publications can evolve from being mere readers to becoming engaged supporters displaying a sense of identity and can eventually turn into content providers who complete the information by voting and commenting on posts and by interacting with other users, thus contributing to a richer experience with the publication. Consequently, the latent communities that spontaneously and naturally stem from these digital publications (hereafter, publications' online communities, POCs) are not the core service of the digital publication (the main content is provided by the publisher and its editorial team), but rather a manifestation of its success.

Although, online communities are hosted by publishers who are independent of the brands, they seek profit through brand advertising. Readers are also expected to pay attention to the publication's ads and sponsored content and to display a preference and a buying behavior favorable to the advertisers, which in turn provides the revenues required to sustain the

publication's business. Paradoxically, the presence of advertisers in the digital publication might be perceived as intrusiveness and so spoil community building.

Despite the abundant research on knowledge and information exchange in online communities applied to professional community settings (Chiu *et al.*, 2006; Lin *et al.*, 2009) and to communities of consumers (Chan and Li, 2010; Lu *et al.*, 2010; Thomas *et al.*, 2013; Breitsohl *et al.*, 2015), to the best of our knowledge, research has thus failed to focus on online communities that support digital publications. Given such a context, we attempt to address the following research questions: What are the dynamics of the sense of community among the followers of digital publications? What nurtures followers' sense of community? To what extent does advertising impact on identification with the community and on follower commitment?

To address these questions, the current research proposes, on the basis of the sense of community theory (McMillan and Chavis, 1986), that the sense of community in digital publications is grounded on three pillars: the primary functional benefit they provide (i.e., informational value), the feeling of membership and emotional connection (i.e., the identification), and the intention to invest time or effort in the long run (i.e., commitment). We examine three actors who determine the sense of community: the editors, the followers, and the advertisers. Based on the network theory (Granovetter, 1973, 1983) we maintain that the structure of connections among followers and editors (strong ties and diversity) is a driver of identification and perceived informational value, while the perceived intrusiveness of advertising (banners and sponsored content) acts as an inhibitor of individuals' identification and value perception. To test our proposed hypotheses, we chose a firm specializing in digital publications and collected data from the users of different publications in order to encompass different thematic areas (technology, lifestyle, automobiles, leisure, and economy).

This research makes a number of contributions. First, we examine the extent to which the

three participants in a publication –editors, followers and advertisers– impact on the sense of community. Although previous works have studied the influence of bloggers’ credibility as a determinant of success (Lu *et al.*, 2014), together with social capital as a determinant of consumer participation and commitment in online communities (Chang and Chuang, 2011; Chiu *et al.*, 2006), there is little research investigating the effect of advertising in online communities (Becker-Olsen, 2003; Andreini *et al.*, 2014). Second, extending the Breitsohl *et al.* (2015) classification, which distinguishes two types of community-host (consumers and firms), the current paper identifies a third kind of host: a publisher, that has its own profit goals and revenue sources (as a firm) and is neutral with regard to content focus (as consumers). Third, while most prior literature explores the drivers of consumer participation and information-sharing, we consider that the element defining these latent communities is not only participation (since readers and followers are not supposed to be the main content generators), but the perceived informational value and identification with the community.

## **2. Sense of community in digital publications**

### *2.1. Publications’ online communities*

Breitsohl *et al.* (2015) propose a typology of online consumption communities based on their content focus (brand vs. activity communities) and type of host (consumer-hosted vs. firm-hosted communities). Including POCs in this typology is not clear since there are certain differences with other online consumption communities. There is some ambiguity about the content focus and about the host. As regards content, the focus of these digital publications is usually an activity or a common interest (i.e., fashion, technology, sports, cooking...), not a brand, although the community identity does eventually tend to be built around the publication brand, as with brand communities. As for the type of community host, POCs cannot be categorized as either company- or consumer-hosted. Although they are actually

hosted by companies the objective is not to promote the brand or activity itself (publishing) but to offer information about other subjects from a neutral point of view. Therefore, POCs represent a blurred category of online consumption communities.

In addition, most of the literature addressing online communities (Breitsohl *et al.*, 2015; Wang *et al.*, 2015; Pai and Tsai, 2016) focuses on the exchange of user-generated content, where consumers post comments and opinions about brands and activities. In many cases, consumer or user-generated content is the *raison d'être* of the online consumption community. Although the behaviors that characterize online consumption communities are consumer interaction (Lin *et al.*, 2015) and content posting (Breitsohl *et al.*, 2015; Malinen, 2015; Teichmann *et al.*, 2015), these behaviors are not indispensable when it comes to building a POC. What is unique in POCs is that a proactive consumer role in creating content is not necessarily expected because information is basically provided by the publication's editors. Followers can participate by commenting on and sharing information, but the degree of interaction and active participation is lower than in other communities. In this sense, some authors agree that participation should not only be viewed through content sharing, and claim that passive participation has been overlooked (Hu *et al.*, 2016; Malinen, 2015). This passive participation refers to simply watching and reading information, known as lurking. In these cases, the perception of activity and social presence is made visible through displays of site usage (Malinen, 2015), such as the number of likes, number of visits, etc. Therefore, a sense of belonging to a virtual community may exist among followers who do not post content and who are mere spectators, and who read and spend time in the community (Malinen, 2015). Even if they do not know each other, they are aware of the existence of a group of followers they belong to.

## *2.2. The pillars of the sense of community in digital publications: informational value, identification and commitment*

According to the theory of sense of community (McMillan and Chavis, 1986), the sense of community is defined by four elements: membership, influence, fulfillment of needs, and shared emotional connection. Membership is the feeling of belonging or being a part of the community and it means that there are boundaries (people who belong and people who do not). Influence refers to both, the group's ability to influence its members and the member influence over what the group does. Fulfillment of needs or reinforcement refers to the rewards or benefits obtained by the members. Finally, shared emotional connection, which can be based on contact, interaction, shared events, spiritual bonds, or investments.

The concept of sense of community and its dimensions have been adapted to the context of virtual communities (Koh and Kim, 2003; Blanchard and Markus, 2004; Blanchard (2007). Authors seem to agree that the dimensions and the dynamics among them depend on the type of community. Therefore, taking into account these insights, as well as the unique features of digital publications, we propose three pillars that characterize the sense of community in digital publications: identification, informational value and commitment.

First, in line with Koh and Kim (2003) we maintain that membership in virtual communities is related with the shared emotional connection, and the identification with something own in common and can be based on contact, interaction, shared events, spiritual bonds, or investments. In the context of POCs, we propose that membership and emotional connection are reflected in the *identification* with the community of readers. Identification reflects the maximum expression of an individual's attachment with a brand, firm or group (Bhattacharya and Sen, 2003). In the case of virtual communities, the sense of belonging and identification may emerge among subjects who do not know one another personally (Brown *et al.*, 2007). Individuals can thus develop a sense of identification with other individuals in POCs even if

most of them are passive participants.

Second, as refers to the fulfillment of needs or rewards obtained by the members, we assume that the digital publication community must provide value to its members, specifically, *informational value*. Lee *et al.* (2014) define the informational value of online communities as “the users’ sense of expectation to obtain knowledge, information, or resources shared by other members”. Likewise, Pai and Tsai (2016) refer to informativeness as “the degree to which a community offers information that members perceive as useful”. In digital publications, information is mainly provided by the editors, but also by other followers, through comments or conversations. The value of the information consumers receive from these digital publications lies precisely in the fact that it extends and enriches the information consumers receive, aids the evaluation and decision-making process (Chan and Li 2010; Huang *et al.* 2010), and helps consumers in the purchase process. Moreover, the opinions, whether positive or negative, expressed by the editors or by past, current or potential consumers concerning a product or firm, may be accessed by a vast number of individuals through networks or links established among them.

Finally, influence is a bidirectional concept. Although Koh and Kim (2003) limit it to the influence over the group and Blanchard and Markus (2004) neglect the existence of influence on virtual communities, we consider the two directions of the concept. The group member believes that through participation he or she may be influential. In this idea, we propose that the long term sustainability of the community will depend on the followers’ participation and *commitment*, that is, the desire to forge greater links with the community (Wang *et al.*, 2015). Since commitment refers to individuals’ expected behavior, commitment to online communities is usually associated to members’ active participation behavior, that is, *hard commitment* (Malinen, 2015; Wang *et al.*, 2015; Jin *et al.*, 2015, Lai and Chen, 2014, among others). However, influence also involves the community’s ability to influence its members,

and readers of digital publication are influenced when they decide to act as lurkers, reading and following the publication, that is, revealing a *soft commitment*. Yang *et al.* (2017) recognize that lurking is a significant form of member participation behavior because it allows online content to spread to a wide audience. This passive participation can also provide benefits in the form of reputation and prestige (Hu *et al.*, 2016). Therefore, in the context of POCs, where participation is mainly passive, non-visible forms of commitment can be expected. Followers will manifest commitment in behavior intentions that go beyond their current activity, i.e., the intention to spend more time in the digital publication, to read it more frequently, to recommend it, or to share content.

### *2.3. The dynamics of the sense of community in digital publications*

In their theoretical proposal, McMillan and Chavis (1986) state that the elements of sense of community “work dynamically together to create and maintain sense of community”. Similarly, prior research in the field of virtual communities (Mathwick *et al.* 2008) suggests two routes through which individuals develop a commitment to online social groups, particularly communities: the value of the information obtained by interacting with the group, and the social value of such interaction. The current research therefore assumes that the primary functional benefit provided by digital publications (i.e. informational value) as well as the social and emotional benefit of POCs (i.e. the identification) result in follower soft and hard commitment.

The perception of value facilitates the relationship with a community (Pai and Tsai, 2016). When individuals perceive value in the information received, they are predisposed to repay the community. Useful information encourages members to stay (Wang *et al.*, 2015) and increases their motivation to reciprocate (Lin *et al.*, 2015; Pai and Tsai, 2016; Hu *et al.*, 2016). In the case of digital publications, the informational value will foster the intention to continue using the publication as a source of information as well as the predisposition to

recommend the content to other potential users. In this sense, Wang and Lin's (2011) findings support the positive association between perceived information quality in a blog and usage intention. When the information is provided by other followers, perceived usefulness in the received information encourages consumers to help those who have helped them, thereby following the reciprocity norm that governs communities. A feeling that one has been helped in a purchase decision creates a debt of gratitude in a consumer and a feeling of responsibility toward other members of the website, forum, blog or social network (Chan and Li 2010; Lin *et al.* 2009; Wu *et al.* 2010). Thus, we propose the following hypothesis:

***H1.*** *The greater the perceived informational value obtained in a POC, the greater the individual's commitment to the community.*

Marketing research has drawn on social identity theory to explore brand communities, revealing that members of brand communities who identify with a group are more willing to take an active part in the group's activities and to engage in collective behavior (Bagozzi and Dholakia, 2002, 2006; Bagozzi and Lee, 2002), to disseminate the virtues of the brand and to guide other brand followers (Bagozzi and Dholakia, 2002, 2006; McAlexander *et al.*, 2002; Muniz and O'Guinn, 2001). Subjects who identify with the community feel the need to participate, to share their knowledge with others and to help other members (Chiu *et al.*, 2006; Chang and Chuang, 2011; Tsai and Pai, 2014; Chung *et al.*, 2016). When affection increases, individuals feel prone to give something of themselves in order to promote the group's well-being (Tsai and Pai, 2014). In this sense, the feeling of identification creates a commitment which is reflected through behavior that supports the group (Ahearne, *et al.*, 2005).

Thus, we assume that identifying with the POC determines follower commitment. Identifying with the community encourages individuals' motivation and an emotional state that increases their willingness to preserve the community, to act in the group's best interest, and to assume the groups' goals as their own (Lin *et al.*, 2015). Identification with a group also provides a

basis for giving and for offering support to other members (Lin *et al.*, 2015). When followers identify with the POC they will be ready to manifest a commitment to stay and to spend time in the digital publication, to recommend and to share content. Thus, we propose that:

**H2.** *The greater an individual's identification with a POC, the greater the individual's commitment to the community.*

Since informational value and identification represent the two routes towards follower commitment to the POC, we study the factors that determine both the perceived informational value and the degree of identification.

### **3. Drivers of the sense of community in digital publication**

Another uniqueness of POCs is the influence of the participating actors in the digital publications: the editors, the followers, and the advertisers.

The mechanisms by which these actors influence the sense of community are supported on the network theory and the social capital theory. Network theory explains that the configuration of a network of actors is based on the features of the ties connecting the actors (Granovetter, 1973; 1983). In the current paper, we distinguish two main sources of social capital in digital publications: the connection with editors and the connection among followers. These ties allow the information flow among individuals and the access to social capital, defined as “the sum of present and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or a social unit” (Nahapiet and Ghoshal, 1998, p. 243). Research into online communities (e.g., Brodie *et al.*, 2013; Chiu *et al.*, 2006; Huang *et al.*, 2009; Mathwick *et al.*, 2008) has highlighted social capital as the main determinant of community success measured in terms of participation, knowledge-sharing, long-term sustainability, etc.

The advertisers are the third actor required, since digital publications and magazines generate most of their revenue through advertising, in particular with online display advertising (i.e.,

banners) and sponsored content (posts with a commercial purpose). However, advertisers can be perceived as intruders in the network, and the intrusiveness of advertising can prove counter-productive vis-à-vis attracting visitors and fostering a community of followers.

### *3.1. Network structure: bonding social capital and diversity*

Network structure has been associated to two types of network connections: bonding or strong ties, and bridging or weak ties (Granovetter, 1973; Lee, 2009; Putman, 2000).

Network bonding or strong ties refers to close links and relationships between people who know one another (i.e., family members and close friends). Bonding social capital is reflected on the level of relational embeddedness, that is, on trust and reciprocal behaviors or norms and the expectation that an effort made by one part of the relationship will be rewarded by the other part (Nahapiet and Ghoshal, 1998; Williams, 2006). Bonding social capital is expected to discourage opportunistic behavior and favors the circulation and transfer of information among network members (Coleman, 1990; Granovetter, 1973; Levin and Cross, 2004). Furthermore, strong and close links among network members enhance the credibility and value of the information received and impact on the creation of consumer attitudes and behavior (Brown *et al.*, 2007).

In digital publications, followers can perceive strong ties or bonding social capital in their relationship with the editors and with other followers. With regard to the editors, when individuals trust the editors and feel that they respond to their questions, they will have faith in the POC's ability to provide them with valuable information. Reader reliance on the editor determines how much people will use the information contained in these publications (Uribe *et al.*, 2016). In fact, editor credibility refers to individuals' perception that the former are an unbiased, believable, true, or factual source of information (Lu *et al.*, 2014). The information they provide will thus be deemed more useful.

As for the publication's followers, there are individuals who actively participate in the

community (comments, forums, etc.). This disclosure by certain individuals allows bonding social capital to be evaluated as the degree of trust and perceived reciprocity in the publication's followers. An atmosphere of trust paves the way to access to knowledge (Hatzakis *et al.*, 2005), and exchange of information in virtual communities (Ridings *et al.*, 2002). In the area of professional virtual communities, Chiu *et al.* (2006) conclude that trust improves the quality of shared information, whilst reciprocity boosts quantity. In sum, the existence of trust and reciprocity norms among followers enriches the flow of shared information and, thus, the value of the information that subjects obtain. We thus propose that:

**H3.** *The greater the perceived bonding social capital from the editors (H3a) and from other followers (H3b), the greater the perceived informational value obtained in the POC.*

The perceived bonding social capital is also expected to favor identification with the POC. Studies into organizational identification have conditioned identification to a prior evaluation concerning the firm's reputation or the trust placed therein (Ahearne *et al.*, 2005; Bhattacharya and Sen, 2003). According to Ahearne *et al.* (2005), when individuals have a favorable perception of a company's characteristics they will find that company to be an attractive target for identification. Moreover, some individuals in a company with whom the customer has regular contact (in our case, the editors), can impact the sense of identification the customer might have with the organization. Therefore, when the editorial team is perceived as trustworthy, individuals will be more inclined to identify with the digital publication and will be proud of belonging to the POC.

In the case of the other members of the community, once members learn and accept group norms, they will identify more with the community (Dholakia *et al.*, 2004). It should therefore be expected that trust and reciprocity norms lead to a feeling of identification among readers and followers: trust reduces the perception of risk in others' behavior, whilst reciprocity, conceived as the degree to which individuals expect to receive feedback from other

community members, engenders positive expectations, thus strengthening the desire to belong. Therefore,

**H4.** *The greater the bonding relational social capital from the editors (H4a) and from other followers (H4b), the greater the individual's identification with the POC.*

Network bridging refers to horizontal ties shaping more diverse groups of people with different backgrounds. Bridging social capital refers to open networks characterized by extra-community linkages with dissimilar actors. It thus implies that network heterogeneity and diversity is a relevant feature of groups and networks (Burt, 1992; Lee, 2009). A network will prove to be more varied the more diverse its members in socio-economic, cultural, and ethnical terms, etc. (Batjargal, 2003; Lin, 1999; Stone and Hughes, 2002).

Following this approach, we refer to diversity as a measure of network bridging in POCs. Diversity of editors and followers is expected to result in information value for the publication's followers. Social capital literature (Granovetter, 1973; Nahapiet and Ghoshal, 1998) suggests that intellectual capital is created when knowledge from a range of areas merges, said diversity proving necessary in order to experience new sources of information and thus achieve greater richness of knowledge. Editors and followers' diversity within a POC leads to securing ideas and information from a wider range of perspectives which are therefore more varied and original compared to networks comprising over-homogenous users, who provide redundant and less innovative information. Thomas *et al.* (2013) maintain that the heterogeneity of consumption communities (participants with diverse backgrounds, wide range of expertise) provides benefits derived from resource dependence and motivates actors to collaborate and overcome heterogeneity-related tensions. Moreover, diverse groups are likely to generate and evaluate more alternatives when solving problems (Almeida *et al.*, 2014).

**H5.** *The greater the diversity of editors (H5a) and followers (H5b), the greater the perceived*

*informational value obtained in the POC.*

In contrast to informational value, which is likely to be fostered by diversity, greater diversity among network users is likely to make the identification with a group more difficult for individuals. To sense a feeling of membership and to develop an affective investment will be harder if there is a great variety of editors and strong differences among followers. According to Almeida *et al.* (2014), group member diversity and separation make the emotional attachment required to form a social identity more difficult to secure. We thus propose that:

**H6.** *The greater the diversity of editors (H6a) and followers (H6b), the less the identification with the POC.*

### *3.2. Advertising intrusiveness*

The third actor of digital publication, advertisers, is considered as an intruder in the network, an actor out of the community boundaries (McMillan and Chavis, 1986), who may influence individuals' perceptions about the community.

Even if the aim of digital publications is to provide readers with neutral and impartial information, their business model depends on paid advertising. Hence, there is also content of a commercial nature which is generated with an advertising goal: banners and sponsored posts. Banner ads are advertising messages which are displayed and which may be clicked on for additional information (Becker-Olsen, 2003). Sponsored content, also called native advertising (Wojdyski and Evans, 2016), is paid advertising that takes the specific form and appearance of editorial content from the publishers themselves. Specifically, in the context of digital publications, sponsored posts are posts that are produced based on sponsorship and which contain messages related to the sponsored brand (Lu *et al.*, 2014; Hwang and Jeong, 2016). While banners are short-term promotions and are displayed on websites for a limited time, sponsored posts refer to a long-term promotional agreement between sponsor and website (Andreini *et al.*, 2014).

The main concern when inserting advertising in digital publications and blogs involves the perceived intrusiveness and negative consequences in terms of credibility. Li *et al.* (2002) define intrusiveness as a psychological reaction to ads that interfere with a consumer's ongoing cognitive processes. Advertising intrusiveness will be greater when perceived as goal-impeding (it interrupts tasks and causes irritation), when the individual perceives ad clutter (the perception that the advertising in a medium is excessive), or when prior experiences are negative (Cho and Cheon, 2004).

One consequence of advertising intrusiveness is skepticism. Banners and sponsored recommendations disclose the connection between the digital publication and the sponsor company (Lu *et al.*, 2014). Recognizing content as advertising increases the feeling of skepticism and defensiveness and sparks a negative reaction toward the company (Wojdyski and Evan, 2016). In the context of blogs, Uribe *et al.* (2016) indicate that blogs are perceived as credible sources of information, but that sponsored information may have a negative effect on persuasion because the commercial intention is exposed. Therefore, the greater the presence of advertising in the digital publication, the less the credibility of the information and, consequently, the lower the perceived informational value.

*H7. The greater the perceived advertising intrusiveness, the lower the perceived informational value.*

As explained, intrusiveness interrupts the flow of an editorial unit and triggers a negative emotional reaction such as ad avoidance and irritation (Li *et al.*, 2002). It can be expected that the greater the perceived ad intrusiveness in digital publications, the greater the irritation and the intention to avoid it. Therefore, the perceived intrusiveness will interrupt the relationship with the rest of the content provided by the community (followers and editors), will reduce the time individuals devote to the publication and, eventually, their attachment to it as well as individuals' identification and membership feeling.

*H8. The greater the perceived advertising intrusiveness, the lower the individual's identification.*

Figure 1 provides a global representation of the relationships we seek to explore.

*Insert here Figure 1*

## **4. Methodology**

### *4.1. Information gathering and characteristics of the sample*

To test our proposed hypotheses, we selected a firm specializing in digital publications: Weblogs, S.L. This is a company specializing in digital publications in Spanish with more than 40 publications on different topics (technology, lifestyle, automobiles, leisure and economy) and which is present in Spain and Latin-America. Some of these publications are managing to consolidate user communities around them. Moreover, in order to attract brands and advertisers, these publications allow brands to connect to their natural audiences and, as well as banners, also offer spaces for sponsored content (native advertising).

A survey method was used to gather information from followers of this company's digital publications, which helped us distribute the survey by posting banners in some of their most representative publications with a link to the online questionnaire. In these banners, followers were invited to answer a questionnaire aimed at improving the publication. Subjects were asked to answer several questions concerning the digital publication they were visiting. The publications in which the banners were inserted involve diverse thematic areas: technology (*xataka.com*), fashion and beauty (*trendencias.com*), food and cuisine (*directoalpaladar.com*), family and children (*bebesymas.com*), leisure, spare time and a healthy life (*vitonica.com*), automobiles and motorbikes (*motorpasion.com*) and economics and financing (*elblogsalmon.com*). Table 1 summarizes the main characteristic of each publication.

*Insert here Table 1*

Banners were posted for four weeks between September and October 2016. Despite the large

number of banner impressions (around three millions), we only received 730 responses (individuals who clicked on the banner and started the questionnaire). The number of valid responses (i.e., complete questionnaires) was 354. Although the click-through rate (percentage of the total number of impressions that induce a surfer to actually click on a banner) was really low (.025%), it is a common rate of effectiveness in banners (Smartinsights, 2016). Table 2 details the characteristics of the sample. The percentage of respondents from *Xataka* and *Motorpasión* was higher than it could be expected according to the audience of these publications at the time of data gathering, while a relatively low percentage of responses were received from publications with large audiences such as *Bebés y Más*. This may denote that some publications have more active readers than others, which is consistent with the growth/decline in the audience figures observed during last year.

*Insert here Table 2*

Since an online questionnaire was used and respondents were auto-selected, we tested non-response bias (Armstrong and Overton, 1977). Firstly, respondents who started the questionnaire but who failed to complete it were considered as a sample of non-respondents. Although they did not complete the questionnaire, most did answer the first few questions (i.e., those concerning their degree of current active and passive participation in the POC). Thus, through a mean test we assessed whether respondents and non-respondents answered this part of the questionnaire differently. Differences were significant for several items (read some posts completely, read comments, write comments), but non-significant for others (answer comments, rate comments, ask questions, and answer questions). Since there were no incentives or rewards to participate in the questionnaire, the individuals who answered it were expected to be those who showed greater participation in the digital publication. For the rest of the questionnaire, we followed the classical approach and compared early respondents (first quartile) with late respondents (fourth quartile), observing no significant differences.

Furthermore, considerable variability for the model constructs was observed in our valid sample. Thus, although some bias was found between respondents (i.e., valid responses) and non-respondents (i.e., incomplete responses), we concluded that non-response bias is not a major concern in our study and that our sample was representative of the population.

#### *4.2. Construct measurement*

To measure the variables proposed in the study, in most cases we employed scales used and validated in previous studies. Table 3 shows the indicators and their respective descriptive statistics. *Commitment* to the POC was operationalized with two constructs, each reflecting two levels of commitment. The first construct refers to the individuals' intention to spend more time and recommend the online community, that is, the intention to make a soft investment (*soft commitment*) in the online community, which is compatible with those users who only act as lurkers. It is measured with two items based on the indicators proposed by Wu *et al.* (2010) to measure individuals' stickiness towards a virtual community. The second construct refers to individuals' intention to actively participate in the community and share knowledge. That is, it reflects the intention to make a hard investment (*hard commitment*) in the online community and to engage more actively (i.e., becoming a poster or posting more frequently). It was measured with the scale of knowledge-sharing intention used by Lai and Chen (2014). *Informational value* was measured as a second-order construct reflected in two dimensions (first-order constructs reflectively measured through their corresponding items). The first refers to the degree to which information is a valuable and reliable resource (i.e., the informativeness or relevance of the information accessed via the publication). It was measured with the scale of informativeness used by Pai and Tsai (2016). The second dimension refers to the value for purchasing (information usefulness for consumption). Given our research context, we created a four-item scale to measure the extent to which the information which users receive from the POC actually influences their buying behavior and

facilitates purchase decision-making. *Identification* was measured using Chiu *et al.*'s (2006) scale, adapted from the work by Bagozzi and Dholakia (2002). To measure *bonding social capital*, we created two scales, one measuring the relationship with the editors and another measuring the relationship with other followers of the community. The two scales are conceptualized to include both trust and reciprocity norm. We drew on Williams (2006), on the trust in the community scale used by Chiu *et al.* (2006) and Yang *et al.* (2017) and the perceived reciprocity scale proposed by Wasko and Faraj (2005), although they were adapted to the specific case of the relationship with editors and other followers. *Diversity of followers* was measured with a semantic differential scale that measures the degree of diversity in the publication's online community perceived by the respondents (from 1: "I think that there is acquiescence and scarce plurality" to 5: "I think there is diversity and plurality of views and opinions"). The *diversity of editors* was measured as the actual number of editors and collaborators participating in the publication. *Advertising intrusiveness* was measured as a second-order construct comprising two first-order components: the perceived intrusiveness of banners and the perceived intrusiveness of sponsored posts. Based on Li *et al.*'s scale (2002), two reflective items were considered to operationalize each component.

Finally, two control variables were introduced: current level of participation in the online community and the motivation to participate. Level of *current participation* was measured using five indicators that indicate whether the respondent plays an active part in the online community (writing comments, asking questions, answering questions and comments, or evaluating the comments). It reflects whether the individual currently acts as a poster and plays an active role (Munzel and Kunz, 2014). Furthermore, we introduced the individual's *motivation to participate*. Motivation was measured with a three-item scale that represents the main factors motivating members to contribute to online communities (Lai and Chen, 2014; Teichmann *et al.*, 2015): altruism, enjoyment and knowledge self-efficacy.

*Insert here Table 3*

Most researchers agree that common method variance (CMV) is a potentially serious biasing threat in behavioral research, especially with single informant surveys. Following Podsakoff *et al.*'s (2003) recommendations, when designing and administering the questionnaire several procedural remedies were addressed in order to minimize potential CMV. In particular, item wording was carefully revised so as to avoid ambiguous or unfamiliar terms; different response formats were used (Likert and semantic differential scale items; ten-point and five-point scales); question order did not match the sequence of predictor and criterion variables considered in the model; and respondent anonymity was protected. The online questionnaire was split over different pages so as avoid introducing related concepts on the same page and the order in which the pages appeared was altered in some questionnaires. In addition, and as a means of gauging the possible impact of CMV, exploratory and confirmatory factor-analytic approaches to Harman's single-factor test were performed. Fuller *et al.* (2016) concluded that this test can detect biasing levels of CMV in survey-based marketing research. Exploratory factor analysis with all the indicators resulted in a solution in which eight factors were extracted with an Eigenvalue greater than one accounting for less than 72% of explained variance, and with a first factor explaining only 29% of variance. In sum, the procedural remedies applied and the findings of the above-mentioned tests suggest CMV is not a major concern in this study.

## **5. Analysis and results**

Hypotheses were tested using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS computer software. This analytical technique was chosen since it allows for estimations with a modest sample size and complex structural equation models (i.e., with multiple dependent and independent variables measured with several indicators), and because it can handle formative measurement models (in our case, advertising intrusiveness was

modeled as formative construct) without specification problems.

Table 3 shows the values of composite reliability and average variance extracted (AVE) of all the reflective scales as well as the corresponding standardized factor loadings, which are all well above the recommended thresholds (CR>.7, AVE>.5, and loadings>.7), allowing us to conclude that these scales exhibit sufficient convergent validity. For the formative index, the first-order components of ad-intrusiveness are all significant. Moreover, variance inflation factors (VIF) are below 5, indicating that multicollinearity is not a problem with these measurement instrument.

Table 4 shows correlations among the constructs for all the variables included in our study. In line with MacKenzie *et al.* (2005), we verified that all the construct intercorrelations are below .71, meaning that all the constructs have less than half their variance in common. We also followed conventional procedures to establish the discriminant validity of the reflective scales, i.e., cross-loadings were examined, and each reflective construct was checked to ensure that the square root of its AVE was greater than its correlation with the remaining constructs. In addition, we applied the approach recently proposed by Henseler *et al.* (2015) and confirmed that the heterotrait-monotrait ratio of correlations (HTMT criterion) is below .9 for all the reflective constructs. Therefore, we can conclude that the measurement instruments used in the present research demonstrate sufficient discriminant validity.

*Insert here Table 4*

As can be seen in Table 5, the results of PLS analysis show that the perceived informational value is related to the individual's commitment to the publication's online community. In support of H1, the effect of informational value on both soft and hard commitment is positive and statistically significant, although its influence on hard commitment is much lower than that on soft commitment. Likewise, in line with H2, we observe that individuals' identification with the POC has a strong effect on both soft and hard commitment. It is

noticeable that the effect of identification on hard commitment is almost three times stronger than the effect of informational value.

Bonding social capital emerges as a more influential driver of informational value and level of identification. In line with H3, the empirical results indicate that greater informational value is derived from a greater bonding social capital from the editors and from other followers, although it is noticeable that the magnitude of this latter effect is only just over a third of the former. The findings also provide support for H4, as a positive effect of bonding social capital from both editors and other followers on identification is observed, with these two effects being of very similar magnitude.

Turning our attention to the perceived diversity in the digital publication, we find support for H5, as a positive and significant effect on informational value is observed for diversity of editors and diversity of followers, but do not find support for H6, diversity of editors has not influence on identification, and diversity of followers, contrary to what was hypothesized, is positively associated with identification.

As predicted in H7, a negative effect of advertising intrusiveness on informational value is found. In contrast, data do not provide support for H8.

Regarding the control variables, hard commitment, i.e., individuals' intention to actively participate in the community and share knowledge, is found to be positively related to their current participation, as well as to their inherent motivation to participate.

*Insert here Table 5*

## **5. Discussion**

This paper advances in the literature addressing online communities and provides support concerning which factors determine the consolidation of communities of followers around digital publications. Digital publications could be considered, a priori, as an unfavorable context for developing online consumer communities since most participants are basically

lurkers, content is mainly provided by specialized editors, and brands are present in a commercial manner through banners and sponsored content.

There are three major sets of results in this study that offer new theoretical and practical insights for the development of a sense of community among the followers of digital publications.

Since the followers of digital publications are mostly lurkers, our first research question was to identify the dynamics of the sense of community among the followers of these publications. Two factors are required to motivate individuals to commit to a POC: perceived informational value and identification with the community of followers. As regards informational value, individuals' commitment to the community is strengthened by the perception that it enables access to information which is valuable, i.e., generally relevant and useful for making better purchase decisions. The effect is mild in the case of hard commitment. Informational value is the main driver of individuals' intention to make soft investments in the community (time and recommendation), while the influence on hard commitment (intention to participate) is lower, a finding which concurs with that of Wang and Lin (2011). With regard to identifying with the POC, we show that the more subjects identify with the community of followers, the greater will be both their soft and hard commitment, that is, their intention to invest time and effort thereto. We can affirm that identification is a key ingredient if a network of individuals following a digital publication is to acquire the status of a true online community. When individuals experience a sense of belonging and a positive feeling towards the community of followers, they will manifest proactive and loyal behavior towards it.

Our second research question was to identify what nurtures the sense of community among the followers of these publications. Taking into account that the editors are the main content generators in digital publications, this research question involved ascertaining whether the

work of the editor proves more relevant vis-à-vis fostering a POC than the social capital perceived from other followers and supporters.

Our empirical results confirm previous research vis-à-vis the key role played by bonding social capital when building online communities (Lee *et al.*, 2014; Hsu, 2015). As expected, information proves more useful and valuable when individuals perceive strong bonding social capital. Moreover, in order to achieve identification with the community, and hence foster commitment, we find that perceiving strong bonding social capital of participants can have a positive impact on individuals' identification with the POC.

As expected, information proves more useful and valuable for buying when it stems from trustworthy editors and, to a less extent, from trustworthy users. Although reciprocity and trust in followers should not be ignored, informational value mainly comes from the relationship with the editors. However, we have found that the feeling of identification with the POC depends on the perception of trust and reciprocity in both editors and other followers of the publication. While previous works have only explored the relational social capital provided by the members of a community (Lee *et al.*, 2014; Hsu, 2015), in the current research we differentiate editors and followers as two sources of bonding social capital required to create a community, and we highlight the key role played by editors when it comes to sustaining the online community through providing followers with valuable information.

Moreover, departing from previous research (Chung *et al.*, 2016; Lee *et al.*, 2014), which has focused on only one aspect of structural social capital (strong ties), we also consider the degree of diversity and find that diversity of editors and followers in digital publications may lead to more useful and relevant information. Surprisingly, and contrary to our proposal, the existence of diversity of followers also fosters identification, while the diversity of editors does not weaken the identification with the community. Digital publications are places where

people from a range of different origins and backgrounds can “live together” because plurality and diversity of ideas and standpoints is viewed positively and can engender the sense of identification. In line with Thomas *et al.* (2013), who highlight the positive effect of heterogeneity when preserving and maintaining communities, our findings show that diversity does not hinder identification but is perceived positively as a valuable source of information that fosters a feeling of affinity or membership, which eventually brings about a greater commitment to the POC.

Finally, the third research question dealt with the third agent in the digital publication: the advertisers and commercial sponsors. In this case, we questioned to what extent the diffusion of display advertising and sponsored content is perceived as an intrusion that may undermine building an online community. Our results show that the presence of advertisers and sponsors in the digital publication damages the perceived informational value, even though it does not significantly affect identification. Brand sponsored banners and content reduce the credibility and usefulness of the information. Consequently, these forms of advertising curb individuals’ commitment to the POC. Although previous literature has neglected the role of advertising in online communities, we evidence that advertisers are seen as intruders or outsiders in the online community, and that their presence, even though inevitable, may be a handicap to building an online community. In this sense, our research contributes to the conceptualization of POCs as online sites in which the three agents involved (followers, editors, and advertisers) are responsible for the sustainability of an online community.

### *5.1 Managerial implications*

Analyzing consumer behavior in digital publications proves particularly useful to firms which act as promoters and managers of digital publications and blogs that generate most of their content, but which allow and encourage consumer interest and participation (through comments, forums, or post-sharing), and which also include information provided by

advertisers.

Our study brings to light some of the key antecedents on which publishers should focus their efforts if they wish to foster a greater sense of community. Firms should thus focus on community dynamics and how it works in order to encourage participants and visitors to perceive trust and reciprocity. Organizing events and meetings related to certain topics may help to reinforce bonding among participants, which might subsequently lead to greater identification with the POC. Actions related to experiential marketing or engagement marketing (e.g. tryvertising, advergaming, etc.) may also prove effective when forging ties between reader and publication and, by extension, with the online community. In addition, followers should be always offered content and answers in a way consistent with their needs and expectations. In this sense, the publication's style of communication could change and might distance itself from the conventional impersonal one-way approach. Shifting from the "me" to the "we" and from "interruption" to "conversation" with the user are the new maxims when conceiving communication through such channels. Digital publications should seek empathy and try to become a "friend of your friends" so as to generate a perception of reciprocity and, above all, trust.

Diversity in digital publications is perceived as both a source of informational value and is also appreciated in terms of identification. Contrary to other contexts, such as certain webpages and firm profiles in social networks which are becoming so large and diverse that users barely identify with them, in the context of online publication (and, by extension, blogs), diversity and heterogeneity are welcomed. Since the number of active participants is relatively low, the plurality of opinions does not saturate the reader but, rather, becomes a source of value. To achieve this, useful tools include incorporating an adequate number of expert editors, with different points of view, and the existence of community managers charged with fostering communication and dynamism so as to ensure a constant flow of plural

information.

Finally, although advertising do not damage the sense of identification, it reduces the perceived information value. Since the presence of advertisers is inevitable in digital publications given that it is the major source of revenue, it is crucial to find an optimal level of banner impressions that neither annoy nor disturb the reader, to accurately display the right ads to the right segments, and to develop sponsored content which is as neutral and relevant to the reader as possible.

### *5.2 Limitations and future research directions*

Many questions arise in the present study regarding the variables which might need to be addressed in future research. In the present work, we explore whether individuals' commitment, their identification or the value of the information obtained might change depending on the publications' characteristics. Yet it seems necessary to examine in greater detail the idiosyncrasies of different kinds of digital publications (for instance, publications with online and offline formats versus online-only publications).

The different effect of banners and sponsored content in the attachment to the POCs might be analyzed in greater detail, also considering product reviews, a kind of content which, even though it is supposedly objective and independently elaborated by editors, might be perceived by readers as paid advertising and as a further source of intrusiveness. Moreover, a topic for further research is to analyse the main and interaction effects that the type of news content (hard vs. soft news), the advertising format (display vs. sponsored content) and the kind of branded content (more explicit vs more subtle branded content) may produce on the perceptions about advertising intrusiveness and informational value.

Finally, we recommend exploring in depth the real impact of POCs on consumer purchase decisions compared to other sources of information they may consult. How POCs affect the kind of products and brands acquired, purchase frequency or the amount of money spent are

just some of the questions we shall be seeking to find an answer to in future research.

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Table 1  
**Characteristics of the online publications**

	<b>Start year</b>	<b>Audience Oct-17</b>	<b>Audience Oct-16</b>	<b>Growth %</b>	<b>No. editors</b>
Xataka	2004	9,331,808	6,346,052	47%	39
Bebés y más	2005	9,014,546	9,128,845	-1%	8
Directo al paladar	2005	5,052,538	5,204,439	-3%	8
Vitónica	2007	4,290,713	4,891,369	-12%	10
Tendencias	2006	2,829,737	2,168,235	31%	22
Motorpasion	2006	2,622,093	1,888,117	39%	9
Blog Salmón	2005	809,204	865,750	-7%	16

Source: <https://www.weblogssl.com/datos-audiencia-wsl-octubre-2017>

Table 2  
**Sample characteristics**

<b>Online publication</b>		<b>Education</b>		<b>Gender</b>		<b>Age</b>	
Xataka.com	47.2%	Primary education	2.4%	Female	22.3%	Under 24	22.3%
Motorpasion.com	26.6%	Secondary education	24.8%	Male	77.7%	Between 25 and 34	28.7%
Directoalpaladar.com	12.4%	University	58.0%			Between 35 and 44	28.4%
Tendencias.com	4.8%	Master or doctoral degree	14.9%			Between 45 and 54	11.3%
Bebesymas.com	3.7%					Between 55 and 64	7.8%
Vitonica.com	3.1%					Over 64	1.4%
Elblogsalmon.com	2.3%						

Table 3  
**Constructs, descriptive statistics and reliability and validity tests**

Constructs and indicators	Mean	Std. Dev.	Loadings*	Weights*
<b>Soft commitment</b> ( <i>CR</i> =.82; <i>AVE</i> =.69)				
I will devote longer time to XYZ in the future	3.19	1.20	.80	
Would you recommend XYZ to a relative or a friend? (where 1 means "Not at all" y 10 means "Yes, undoubtedly").	8.59	1.70	.86	
<b>Hard commitment</b> ( <i>CR</i> =.95; <i>AVE</i> =.91)				
In the future I will participate XYZ more actively	2.62	1.26	.95	
In the future I will share in XYZ my knowledge	2.71	1.28	.96	
<b>Informational value</b> (second-order construct with reflective first-order dimensions: <i>CR</i> =.87; <i>AVE</i> =.77)				
<i>Information relevance</i> ( <i>CR</i> =.89; <i>AVE</i> =.73)			.82	
I heavily trust on the information I find in XYZ	4.08	.92	.82	
The topics covered in XYZ are relevant to me	4.16	.89	.86	
The information offered in XYZ is useful to me	4.25	.90	.88	
<i>Information usefulness for consumption</i> ( <i>CR</i> =.95; <i>AVE</i> =.83)			.93	
I consult XYZ before buying certain kind of products	3.73	1.29	.86	
Since I follow XYZ I make better purchase decisions	3.45	1.23	.92	
Since I follow XYZ making a decision (e.g., buying a product) proves easier	3.53	1.20	.92	
Since I follow XYZ I feel more confident when a make a purchase	3.46	1.25	.94	
<b>Identification</b> ( <i>CR</i> =.97; <i>AVE</i> =.91)				
I have a sense of belonging towards this community	2.70	1.23	.95	
I have the feeling of togetherness or closeness in this community	2.66	1.26	.97	
I feel proud to be a member of this community	2.73	1.26	.94	
<b>Bonding social capital (editors)</b> ( <i>CR</i> =.88; <i>AVE</i> =.65)				
When I ask for help, I feel that the editors will help me	3.47	1.10	.80	
The editors behave in a consistent and honest manner	3.79	.98	.84	
I trust their criteria when assessing a product or a service even though sometimes I may disagree	3.83	1.07	.83	
I perceive them as close people to whom I may pose questions	3.47	1.17	.75	
<b>Bonding social capital (followers)</b> ( <i>CR</i> =.86; <i>AVE</i> =.66)				
When I ask for help, I feel other readers will help me	3.27	1.22	.87	
If I give my opinion about a topic, I like other readers give theirs	3.66	1.23	.76	
The other readers of XYZ are trustworthy	3.03	1.11	.80	
<b>Diversity of followers</b>				
Degree of diversity	3.78	1.10		
<b>Diversity of editors</b>				
Number of editors and collaborators	23.81	14.66		
<b>Advertising intrusiveness</b> (second-order construct with formative first-order components: max. <i>VIF</i> =1.13)				
<i>Sponsored advertising intrusiveness</i> ( <i>CR</i> =.98; <i>AVE</i> =.96)				.64
I believe sponsored contents damage the credibility of XYZ	2.65	1.36	.89	
Sponsored contents are intrusive and bothersome	2.20	1.25	.90	
<i>Banners' intrusiveness</i> ( <i>CR</i> =.88; <i>AVE</i> =.78)				.57
I believe banners damage the credibility of XYZ	2.23	1.28	.90	
Banners are intrusive and bothersome	2.91	1.47	.86	
<b>Current participation</b> ( <i>CR</i> =.94; <i>AVE</i> =.76)				
I write comments	1.70	.93	.86	
I respond to existing comments	1.56	.88	.92	
I rate comments	1.73	1.06	.85	
I ask questions in the forums for questions and answers	1.31	.67	.81	
I answer the questions from other followers	1.38	.77	.89	
<b>Motivation to participate</b> ( <i>CR</i> =.85; <i>AVE</i> =.65)				
I believe my opinions are relevant enough to be shared	3.43	1.22	.74	
I feel it is positive to answer to the queries from other readers and to help them to solve their problems	3.92	1.16	.77	
I feel funny to share my opinions and information with other people	3.20	1.36	.89	

CR- Composite reliability; AVE- Average variance extracted.

\* All factor loadings and weights are significant,  $p < .01$

Table 4  
Correlations matrix<sup>a</sup>

Constructs	1	2	3	4	5	6	7	8	9	10	11
1. Soft commitment	<i>.83</i>	.66	.83	.63	.77	.38	.09	.41	.35	.10	.24
2. Hard commitment	.45	<i>.95</i>	.39	.57	.39	.48	.01	.27	.18	.41	.52
3. Informational value	.59	.35	<i>.79</i>	.42	.54	.41	.17	.34	.31	.13	.37
4. Identification	.45	.53	.39	<i>.95</i>	.42	.45	.01	.31	.20	.32	.33
5. Relational social capital (editors)	.53	.34	.47	.37	<i>.81</i>	.42	.17	.36	.28	.07	.34
6. Relational social capital (followers)	.25	.40	.34	.38	.33	<i>.81</i>	.11	.19	.14	.36	.71
7. Diversity (editors)	-.06	-.00	.16	.01	-.15	.09	<i>n.a.</i>	-.04	.03	.03	.10
8. Diversity (followers)	.31	.26	.32	.30	.33	.17	.04	<i>n.a.</i>	.26	.07	.27
9. Advertising intrusiveness	-.22	-.14	-.24	-.15	-.21	-.10	-.00	-.21	.76	.07	.12
10. Current participation	.03	.37	.03	.30	.04	.30	-.01	.07	.03	.87	.43
11. Motivation to participate	.15	.45	.30	.29	.28	.53	.08	.24	-.04	.37	.80

<sup>a</sup> Elements below diagonal show construct intercorrelations, diagonal elements (in italics) show the square root of the AVE, elements above diagonal (in grey) show HTMT ratio of correlations according to Henseler et al.'s (2015) criterion for assessing discriminant validity.

n.a.- Not applicable

Table 5  
PLS results

Core research ideas	Hypothesized relationship	Path coefficients
<i>Sense of community dynamics</i>	Informational value → Soft commitment (H1 ✓)	.48**
	Informational value → Hard commitment (H1 ✓)	.13**
	Identification → Soft commitment (H2 ✓)	.29**
	Identification → Hard commitment (H2 ✓)	.35**
<i>Role of editors</i>	Bonding social capital (editors) → Informational value (H3a ✓)	.37**
	Bonding social capital (editors) → Identification (H4a ✓)	.21**
	Diversity (editors) → Informational value (H5a ✓)	.21**
	Diversity (editors) → Identification (H6a ✘)	.03
<i>Role of followers</i>	Bonding social capital (followers) → Informational value (H3b ✓)	.16*
	Bonding social capital (followers) → Identification (H4b ✓)	.28**
	Diversity (followers) → Informational value (H5b ✓)	.16**
	Diversity (followers) → Identification (H6b !)	.18**
<i>Role of advertisers</i>	Advertising intrusiveness → Informational value (H7 ✓)	-.12**
	Advertising intrusiveness → Identification (H8 ✘)	-.05
<i>Control relationships</i>	Current participation → Soft commitment	-.07
	Current participation → Hard commitment	.17**
	Motivation to participate → Hard commitment	.25**
	R <sup>2</sup> of Informational value	34.02%
	R <sup>2</sup> of Identification	24.62%
	R <sup>2</sup> of Soft commitment	41.24%
	R <sup>2</sup> of Hard commitment	41.16%

Level of significance: \*\* p <.01, \* p<.05, † p<.1 (one-tailed test for supported hypothesized relationships and two-tailed test for control relationships and for H6b, which shows a sign contrary to the one hypothesized).

✓ hypothesis supported by the data, ✘ rejected hypothesis, ! significant relationship but with a sign contrary to the one hypothesized.