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Brand loyalty creation within online brand communities

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Executive summary

The purpose of the research is to understand how brand loyalty is created within online brand communities. Additionally, a comparison of the brand loyalty creation process between company-initiated and consumer-initiated online brand community is undertaken. Motivated by the lack of research regarding online brand communities and the common difficulties for companies to create a relationship with their consumers, this research considers online brand communities as a tool for companies to leverage consumers' brand loyalty.

Based on relevant previous literature, a conceptual framework is developed in order to understand the process of brand loyalty creation. Primary data is gathered through a self-administered online questionnaire in two online brand communities, one being a company-initiated online brand community (IKEA FAMILY hej Community) and the other being a consumer-initiated online brand community (IKEAFANS).

The analysis shows that online brand communities are able to build brand loyalty. The process of brand loyalty creation involves several variables amongst which are brand attachment and community commitment. Community members' commitment to the community results in additional attachment to the brand around which the community is centered and ultimately leads to repurchase intention and positive word of mouth. Another variable, identification with the community, is found to be a precursor of community commitment and further has an indirect effect on brand attachment through psychological sense of brand community.

A comparison of the two IKEA online communities reveals a significant influence of members' perceived degree of influence on their community commitment within the company-initiated online brand community, whereas such an effect is not detected for the consumer-initiated online brand community. Hence, this research suggests the importance of community member's power to control and influence the community in the creation of brand loyalty within company initiated brand communities. Moreover, relational bonds with other brand users (psychological sense of brand community, PSBC) in general are found to have a stronger influence on community members' attachment to the brand in the consumer-initiated than in the company-initiated online brand community. On the contrary, community members' commitment to the community in the company-initiated online brand community is more strongly related to brand attachment than for the consumer-initiated online brand community.

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1. Introduction

Brands enable consumers to distinguish between the great amount of products and services offered by the market. They help consumers to diminish the effort they put into choosing products by making them recognizable. Hence, they allow consumers to assign responsibility to a particular manufacturer or distributor and to repurchase the same brand over and over again if their previous experience has been successful and satisfactory. Therefore, nowadays, business executives recognize that one of the most valuable assets to a firm are the brands it has invested in and developed over time (Keller, 2008, p.5).

Over the years, several factors have strengthened the challenge for marketers to manage brands and also strengthen their importance for consumers (Keller, 2008). First of all, the increasing number of new brands and products has changed the branding environment, thus creating difficulty for consumers in choosing from a wide range of products. Secondly, customers have become savvy. Their knowledge of marketing has increased and they have become more demanding, more sceptical about which brand to choose from. Thirdly, media fragmentation and erosion of traditional advertising has forced marketers to find new alternatives to promote their brands. Furthermore, increasing use of social media, Internet and online videos makes companies reflect on their marketing strategies so as to adapt better to consumption changes in their environment. Finally, increased competition, globalization, the move from a goods dominant logic to a service dominant logic (Vargo & Lusch, 2004), and the increased cost of introducing a new product or a new brand in the market have made marketers reflect on the management of their brands and their branding strategies (Keller, 2008, p.35-36) .

To adapt to these changes, marketers have not only been forced to evolve in their branding and communication strategies to attract new customers, but they have also been obliged to create new and innovative ways of keeping their existing customers. As “acquiring new customers can cost five times more than satisfying and retaining current customers (Kottler, Keller, Bradey, Goodman, & Hansen, 2009, p.400)), companies are investing large amounts of money in developing customer retention programmes. According to a Datamonitor report, the market for customer relationship management (CRM) systems is expected to be worth

$6.6 billion at the end of 2012 in licence revenue alone.[1] Even though CRM systems have advanced in their efficiency and sophistication, companies still face implementation problems. A recent study of De Paul University stated that merely half of all companies with sales figures above one million dollars said that they practiced CRM to begin with, while only 55% of these companies acknowledged that their CRM programs were able to greatly improve relationships with customers (Soliman, 2011).

The promise of long term profitability and greater market shares further made business executives and marketers alike struggle to find the much sought-after "holy grail" of brand loyalty (McAlexander, Schouten, & Koenig, 2002, p.38). Some of them believe to have found it in the form of brand communities, first depicted in a study by Muniz & O'Guinn (2001). A brand community is formed by passionate consumers around a brand as the focal point of social interaction (Heding, Knudtzen, & Bjerre, 2009). Over the last decade, more and more companies have realized the potential of brand communities in building valuable consumer-brand relationships and cultivating deep consumer-driven brand meaning. However, although much research has been undertaken since Muniz & O'Guinn's (2001) central study and many companies have already included brand communities in their marketing plans, questions still remains as to economic relevance for company's marketing programs and how they can best be utilized in order to create brand loyalty. How should brand communities be composed to involve consumers in the best possible manner? How exactly is brand loyalty created among brand community members and how can companies enhance this process? What drives consumers to actively engage in brand communities and what value do they derive from their participation?

1.1. Scope of the research

The advent of Internet has radically changed the discipline of marketing in many ways. Besides giving companies an additional marketing tool with which to execute their business strategies, Internet has enabled consumers to access a large amount of information about products and brands more easily. Moreover, it has also created new opportunities for consumers to interact with companies between themselves. Certainly, this also has

[1]Marketing Charts website http://www.marketingcharts.com/direct/crm-applications-revenue-set-to-double-in-value-2225/ [Accessed 13 August 2011].

implications for brand communities as it gives brand enthusiasts a new forum in an online setting in which to share their passion for a brand with other like-minded consumers.

The present thesis studies online brand communities and how companies can profit from them to build valuable long-term relationships with consumers. Previous research suggests that community membership leads to brand loyalty (Algesheimer, Dholakia, & Herrmann, 2005; Amine & Sitz, 2004; Dick & Basu, 1994; Kim, Choi, Qualls, & Han, 2008). As a consequence, this research aims to understand how brand loyalty is created in online brand communities, centered on the following research questions:

1. ***What is the process of brand loyalty creation within online brand communities?***

Furthermore, it of interest to investigate if differences can be found between brand-initiated and consumer-initiated online brand communities leading us to the last research question:

2. ***Is there a difference in the process of brand loyalty creation between a brand-initiated and a consumer-initiated online brand community? If so, where does it lie?***

1.2. Structure of the master thesis

This master thesis is structured into nine chapters. In the *first chapter*, a general introduction to the topic is provided. The scope of this study is described as research questions are formulated. Moreover, a brief introduction to methodology is presented before the chapter concludes with a delimitation of the topic. The *second chapter* gives an overview over the relevant literature. It contains a detailed discussion of brand communities/online brand communities and their value creation. In addition, concepts of brand equity are introduced and brand community management is discussed in further detail. Finally, the chapter states how the research contributes to the existing literature. In the *third chapter*, the conceptual framework, on which is based, is developed based on previous literature. The different constructs incorporated in the framework are discussed in detail and their relationships with each other is outlined. The *fourth chapter* presents the case company to the reader and further delivers an introduction of the two online brand communities analysed in this study. The *fifth chapter* outlines methodological considerations concerning this research. It outlines ontological and epistemological considerations for the research philosophy for this research. Furthermore research approach, data collection methods, samples and measurements scales

are discussed. Finally, the validity and reliability of this research are argued, before limitations to the study are given and generalization is considered. The *sixth chapter* is dedicated to the analysis of the gathered data from the two online brand communities. The *seventh chapter* discusses results from the data analysis. It reflects on those findings in the light of customer based brand equity and brand community management, as previously considered. *Chapter eight* provides the conclusion to this master thesis, before finally the outlining suggestions for future research in *chapter nine*.

1.3. Delimitations

As mentioned before, this master thesis seeks to understand how brand loyalty is created within online brand communities. For this purpose, a conceptual framework is developed and tested on two online brand communities. Thus, the brand loyalty creation process is considered solely in the light of online brand communities. Although other factors such as performance or satisfaction with the brand are likely to influence the level of brand loyalty, they have to be disregarded since they are beyond the scope of this study.

Moreover, this research focuses on finding differences between brand-initiated and company-initiated online brand communities concerning the creation of brand loyalty. Therefore, research has been undertaken on two IKEA online brand communities, a brand-initiated and a consumer-initiated online brand community. The brand-initiated online brand community is based in Germany and thus targets German speaking individuals. On the contrary, the consumer-initiated online brand community is based in the USA and targets an English speaking worldwide audience. As a consequence, there may already be pre-existing differences between the two focal online brand communities, as explained by Hofstede's cultural dimensions (Hofstede, 1980). Additionally, one might argue that social factors such as gender or age, and socio economic factors such as income or education may also have implications for this study. However, this master thesis merely attempts to develop a general understanding of the brand loyalty creation process within online brand communities and therefore the previously mentioned factors have to be disregarded.

Finally, research has proved the influence of websites on the brand equity creation and therefore on customer-brand relationships such as customer loyalty, brand attachment etc. to the brand (Grønholdt, Martensen, & Trajcevski, 2004). Such an influence of the design and quality of the two online brand communities' websites will not be considered in this research.

1.4. Introduction to methodology

Before reviewing the literature in the following chapter, we hereby present a brief introduction to methodology (cf. chapter 5 for a detailed description). This research follows a positivistic research philosophy. Guided by the research questions, hypotheses are formulated and tested according to a previously developed conceptual framework. For this purpose, a quantitative research method is employed. Using the online survey tool Tric Trac, self-administered online questionnaires are designed in order to collect primary data from the two focal online brand communities. Finally, structural equation modeling (SEM), more precisely the statistical program SmartPLS, was used in order to analyse the collected data (cf. chapter 6).

2. Literature review

This chapter introduces brand communities and addresses theoretical foundations of the phenomenon. The concept of brand communities entails two underlying concepts, brands and communities. Accordingly, the following chapter 2.1 is a short introduction to brands and branding practices in its generic sense. Chapter 2.2 then presents general explanations about the community concept. After this review, a more specific discussion on brand communities and their evolution is undertaken, followed by an explanation of online brand communities. Subsequently, the economic relevance of brand communities for companies is discussed before we elaborate on how brand communities can be understood as a tool which enables companies to create value. Finally, this chapter concludes by placing this research in the perspective of the brand community literature.

Nowadays brands try to get consumers to be more and more involved in their marketing practices and marketers are becoming more interested in learning and using brand communities (Algesheimer, Dholakia, & Herrmann, 2005). The reason for such great interest is the ability of brand communities to provide and spread information, interact with highly loyal customers and influence members' perceptions, intentions and behaviour (Algesheimer, Dholakia, & Herrmann, 2005). On the one hand, companies realise the potential of brand communities for enhancing their long-term relationship with customers and hence their brand loyalty. Therefore, the importance of brand communities has increased significantly over the last years (Wiegandt, 2009). On the other hand, researchers such as Amine and Sitz (2004) find brand communities particularly interesting because they give new theoretical perspectives on key concepts (e.g. brand loyalty, word-of-mouth…) and on management of marketing strategies. Kornum (2008) further underlines the importance for companies to work with online communities nowadays because of our environment: overcrowded markets, decreasing effects of promotional effort on traditional media, increasing number of offers consumers are exposed to etc. (Tollin & Carù, 2008).

2.1. Brands

A brand is defined, according to Keller (2008), as a "name, term, sign, symbol, or design, or a combination of them, intended to identify the goods or services of a seller or group of sellers and to differentiate them from those of the competition" (p.2). Brands enable companies to differentiate their products from others, satisfying the same need thanks to both their tangible

and intangibles assets. The former relates to the product performance of the brand, whereas the second relates to what the brand represents (Keller, 2008).

2.2. Communities

In the etymological sense, community is related and derived from various different Latin words like *communire*, *communio*, and *communitas*. *Communire* is a verb that can be translated by *to boost*, *to anchor*, *to safeguard*, whereas communion is best translated by the concept of *Gemeinschaft* (community). *Communitas* stems from medieval urban townships which can be related to the concept of neighbourhood communities (Von Loewenfeld, 2006, p.19).

The concept of "community" was first thoroughly reviewed by Hillery (1995). He studied the extent to which definitions of community agreed by classifying them according to 94 definitions found in the literature. A central element which was found in all definitions deals with the existence of a group of people. He further described four essential elements of communities: self-sufficiency, common life, consciousness of kind, and possession of common ends, norms and means (Hillery Jr, 1955). Notably, some of these elements were later considered by Muniz & O'Guinn (2001) in their description of brand community commonalities (cf. chapter 2.3.1).

Regarding the community literature, a distinction has been made between the different existing communities (Wiegandt, 2009). New forms of communities (e.g. brand communities) differ from traditional communities (e.g. family, tribe etc.) in the sense that they do not only focus on values but also on needs (Wiegandt, 2009, p.10). Therefore, brand communities share both the values of the consumers as well as their needs. However, most communities have been generally understood in terms of shared identity, mutual social relations and emotional bonds (Muniz Jr. & O'Guinn, 2001).

2.3. Brand communities

Research on brands has been categorized in three distinct chronological approaches according to Heding et al. (2009): personality, relational and community approaches (p.182). The personality and the relational approach both consider brand value as being created by the

relationship between consumers and marketers, whereas the community approach focuses on the social interaction between community members and how it creates value (Heding, Knudtzen, & Bjerre, 2009, p.182). Muniz & O'Guinn (2001) further emphasized this distinction by introducing two models of brand communities: the brand dyad relationship model (see figure 1 below), and the brand triad relationship model (see figure 2 below).

Figure 1: The brand dyad relationship model (Muniz Jr. & O'Guinn, 2001)

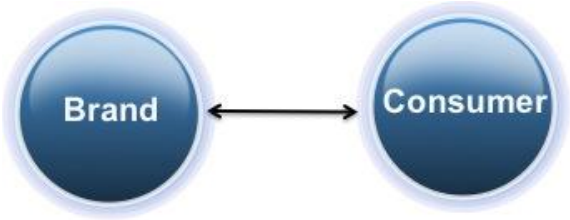
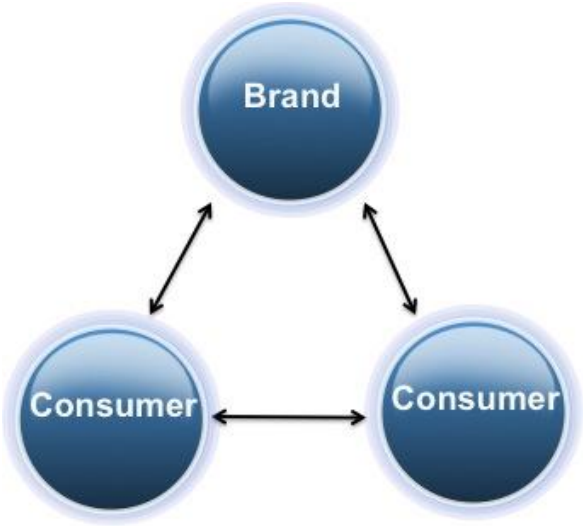


Figure 2: The brand triad relationship model (Muniz Jr. & O'Guinn, 2001)



However, the authors suggest a (Muniz Jr. & O'Guinn, 2001)shift away from the traditional consumer-brand dyad to the consumer-brand-consumer triad. In the brand triad relationship model, brand communities are referred to as ''social entities that reflect the situated embeddedness of brands in the day-to-day lives of consumers and the ways in which brands connect the consumer to the brand, and consumer to consumer'' (Muniz Jr. & O'Guinn, 2001, p.418). This model emphasizes the importance of consumer interaction in brand communities.

It suggests that consumers take an active role in creating brands through the social interaction between community members, the community, the brand, and the individual consumers. Heding & al. (2009) even mention that a brand community needs interaction between at least two consumers in order to exist. In other words, brand communities have a purpose of unifying people who might share nothing in common but this brand. Stokburger-Sauer (2010) illustrated this idea by further defining brand communities: "groups of users and admirers of a brand who engage jointly in group actions to accomplish collective goals and/or to express mutual sentiments and commitments are known as brand communities" (p.347).

In their research, McAlexander et al. (2002) further discussed these two approaches. Based on them, the authors developed another model entitled the "customer centric model". This model proposes a new perspective whereby the customer is at the centre of the brand community in which the brand community intensity is made up of four relations between the customer and the following: other customers, the brand, the product and the employees of the company (see figure 3).

Figure 3: The Customer-Centric Model of Brand Community (McAlexander, Schouten, & Koenig, 2002)

According to Muniz & O' Guinn (2001) a brand community is defined as a "specialized, non-geographically bound community, based on a structured set of social relationships among users of a brand" (p.412). In the literature, it is specified that brand communities differ from "culture of consumption" and "consumer tribes" because of their characteristics (Arnhold,

2010; Cova & Pace, 2006b). Brand communities may appear for any brand but would most likely appear for brands with a strong image, a distinct history etc. (Muniz Jr. & O'Guinn, 2001).

2.3.1. Markers of communities

Muniz and O'Guinn (2001) have introduced three core community commonalities, which enable to distinguish the main features of the brand community: consciousness of kind, rituals and traditions, and moral responsibility.

2.3.1.1. Consciousness of kind

Consciousness of kind is the most important element of brand communities. Muniz and O'Guinn (2001) define it as the "intrinsic connection that members feel toward one another, and the collective sense of difference from others not in the community" (p.413). Consumers are conscious of a shared knowledge of belonging to the community.

2.3.1.2. Shared rituals and traditions

The second indicator of community is the presence of shared rituals and traditions. Rituals and traditions "represent vital social processes by which the meaning of the community is reproduced and transmitted within and beyond the community" (Muniz Jr. & O'Guinn, 2001, p. 421). Therefore, sharing brand stories and building upon the history of the brand are decisive for brand communities (Wiegandt, 2009). These conventions enable the continued existence of the community's culture and history (Wiegandt, 2009). Finally, these conventions favour social solidarity.

2.3.1.3. Sense of moral responsibility

In a brand community there is an obligation towards the community and its members, which is commonly known as moral responsibility. It is defined as "a felt sense of duty or obligation to the community as a whole, and to its individual members" (Muniz Jr. & O'Guinn, 2001, p.413). It benefits the consumers' integration in the community, their retention, and their assistance when using the brand (Heding, Knudtzen, & Bjerre, 2009, p.188). It can be described as one of the main forces for collective action and therefore contributes to group cohesion (Muniz Jr. & O'Guinn, 2001, p.413). Sense of moral responsibility plays a role in retaining old members of a community and helps others to fix problems where specialized knowledge is required or information needs to be shared (Muniz Jr. & O'Guinn, 2001, p.425).

2.4. Organic versus inorganic brand communities

Brand communities can be said to be organic or inorganic. Whilst organic communities emerge independently and reflect self-sustaining consumer generated brand building approaches, inorganic communities are created and influenced by marketers (Muniz & Schau, 2007). This research analyses both organic and inorganic online brand communities, also defined as consumer-initiated and company-initiated online brand communities (Jang, Olfman, Ko, Koh, & Kim, 2008). This research will refer to those kinds of online brand communities as consumer-initiated and company initiated online brand communities. Consumer-initiated online brand communities are deliberately built and hosted by consumers. Conversely, company-initiated online brand communities are built and hosted by the company that owns the brand.

As mentioned by Heding et al. (2009), communities enable consumers to share positive as well as negative experiences and rumours, in both online and offline settings. Consumers can even 'hijack' the brand by giving it another meaning than that intended by marketers (Cova & Pace, 2006b). Therefore, differences exist between company-initiated and consumer-initiated communities since the former are more closely managed in relation to the meaning marketers want to give to their brands. Thus, company-initiated online brand communities might not display unfavourable opinions about, for instance, product performances or brand experiences, as companies might exercise their power to remove or block this kind of content from the community (Jang, Olfman, Ko, Koh, & Kim, 2008). This issue is of course subject to a company's communication policy and the degree to which companies give consumers the power to "own" the brand (cf. chapter 2.8). Just because a company might have the ability to remove or block content does not necessarily mean that it will make use of this practice.

2.5. Online brand communities

Nowadays more than ever, consumers form or participate in brand communities. The increasing use of Internet has influenced consumers in taking action online and following their favourite brand on the Internet by, for instance, joining online brand communities. Online brand communities can be regarded as a certain type of brand community which exists on Internet. Therefore, they share the same characteristics as brand communities in general. Indeed, as Abrahamsen & Hartmann (2006) mentioned, an online brand community is "a brand community, which uses computer systems as the central tool for mediating interaction between members" (p.9). Another definition is provided by Jang et al. (2008): An online

brand community is “a specialized, non–geographically bound community, based upon social relationships among admirers of a brand in cyberspace” (p.57).

2.6. Value creation through online brand communities

As mentioned above, the community approach and the brand triad relationship model underline the importance of social interactions within the community in order to create value for the brand. Brand communities are therefore a platform that will enable brands to strengthen consumer loyalty and to incite consumer-driven brand meaning. Brand communities are also of great importance to companies because they provide a selection of highly motivated customers to communicate with, therefore reducing the ineffective cost of addressing communication to unreceptive consumers, and enabling them to raise their brand loyalty (Wiegandt, 2009).

Marketers can strengthen brand communities by facilitating shared customer experiences (McAlexander, Schouten, & Koenig, 2002). Consumers’ online experience will leverage their bond to a community (McAlexander, Schouten, & Koenig, 2002). Building on the shared interest of their members, i.e. the shared interest being the brand, online brand communities offer consumers the possibility of developing relationships with other individuals sharing the same passion for the brand. Moreover, online brand communities offer companies more than just an additional communication channel as they enable them to obtain valuable information from their customers (Jang, Olfman, Ko, Koh, & Kim, 2008). Hence, online brand communities are of value to companies, which will further be discussed in the following.

2.7. Brand equity

Brand communities are important for brands because of their influence on brand value. In the literature, brand value is usually related to as brand equity (Feldwick, 1996; Keller, 2008). For instance, Feldwick (1996) defines brand equity by three different meaning, one of them being brand value. In this business perspective, brand equity is defined as “the total value of a brand as a separable asset” (p.11). Muniz & O’Guinn (2001) suggest a clear effect of brand communities in building brand equity, therefore meaning that brand communities increase the value of the brand.

According to Aaker (1991), brand equity is “a set of brand assets and liabilities linked to a brand, its name and symbol, that add to or subtract from the value provided by a product or service to a firm and/or to that firm’s customers" (p.15). He further states that brand equity consists of four components, namely (1) perceived quality, (2) brand loyalty, (3) brand awareness and (4) brand associations (Aaker, 1991). Therefore, stating that brand communities build brand equity means that they enhance the rise of the four previously mentioned components. However, our research focuses on the brand loyalty component. Consequently, we will show how online brand communities enable marketers to build brand equity, by raising brand loyalty. Several empirical studies already confirmed that members of brand communities have a higher brand loyalty than non-members (Algesheimer & Dholakia, 2006; Algesheimer, Herrmann, & Dimpfel, 2006). Moreover, research confirmed that community membership leads to intended positive behaviour such as membership continuance, brand recommendation, active participation, and brand loyalty (Algesheimer, Dholakia, & Herrmann, 2005).

Wood (2000) states that this component (brand loyalty) is one of the most important ones of brand equity which explains that the brand value for a company is determined by “the degree of brand loyalty, as this implies a guarantee of future cash flows” (p.663). Moreover, it is noteworthy to mention that “brand loyalty is both one of the dimensions of brand equity and is affected by brand equity” (Aaker, 1991). Therefore, the other components of brand equity have an influence on brand loyalty and it is significant enough to be listed as one of the ways that brand equity provides value to the firm (Aaker, 1991). The relevance of brand loyalty is further discussed in the chapter 2.7.1.

Furthermore, Aaker (1991) postulates that brand equity adds value to customers as well as to firms. Customers’ confidence in purchase decisions will be enhanced as well as use satisfaction and the processing of information. Besides, raising brand equity would also provide value to the firm such as: enhancing the efficiency of marketing programmes, customers brand loyalty, the rise of prices and margins of their products/services, their competitive advantage, their brand extension etc. (Aaker, 1991).

2.7.1. Relevance of brand loyalty

Aaker (1991) describes the strategic value of brand loyalty for companies. Firstly, brand loyalty reduces marketing costs since it is less costly to retain customers than to get new ones.

Customers of other brands would always have a risk of buying and using another brand which is the reason why attracting them to their brand would always be very costly. Secondly, brand loyalty provides trade leverage since stores would want products on their shelves that they know would be sold easily. Thirdly, brand loyalty would attract new customers in two different ways. On the one hand, it would reassure new customers in buying the brand since they would perceive a lower risk of choosing a brand that has a great amount of loyal customers. Indeed, a large satisfied customer base conveys an image of success of the brand therefore influencing new customers. On the other hand, it would also increase consumers' brand awareness by seeing the product used by other customers (brand recognition by being aware of the product and brand recall by seeing the product in use and link the product to the context and a specific need in memory) (Aaker, 1991).

2.7.2. Customer-Based Brand Equity

In addition to being related to brand value, brand equity, the "marketing effects uniquely attributable to a brand" (Keller, 2008, p.37), has different facets. One of them is the concept of customer-based brand equity, also called CBBE. This concept provides a point of view on brand equity, how to measure and manage it etc. It is also used in order to create new, strong brands. CBBE is defined as "the differential effect that brand knowledge has on consumer response to the marketing of that brand" (Keller, 2008, p.48). The CBBE model, also called CBBE pyramid (see figure 4) is composed of several parts and works as a sequence of steps in which each step can be reached if and only if the previous one is. Therefore, CBBE occurs when the customer has a high level of awareness (salience) of the brand (Keller, 2008). As explained by the model (see figure 5), resonance, the highest step of the CBBE, is composed of behavioural loyalty, attitudinal attachment, sense of community and active engagement.

Figure 4: Customer based brand equity pyramid (Keller, 2008, p.60)

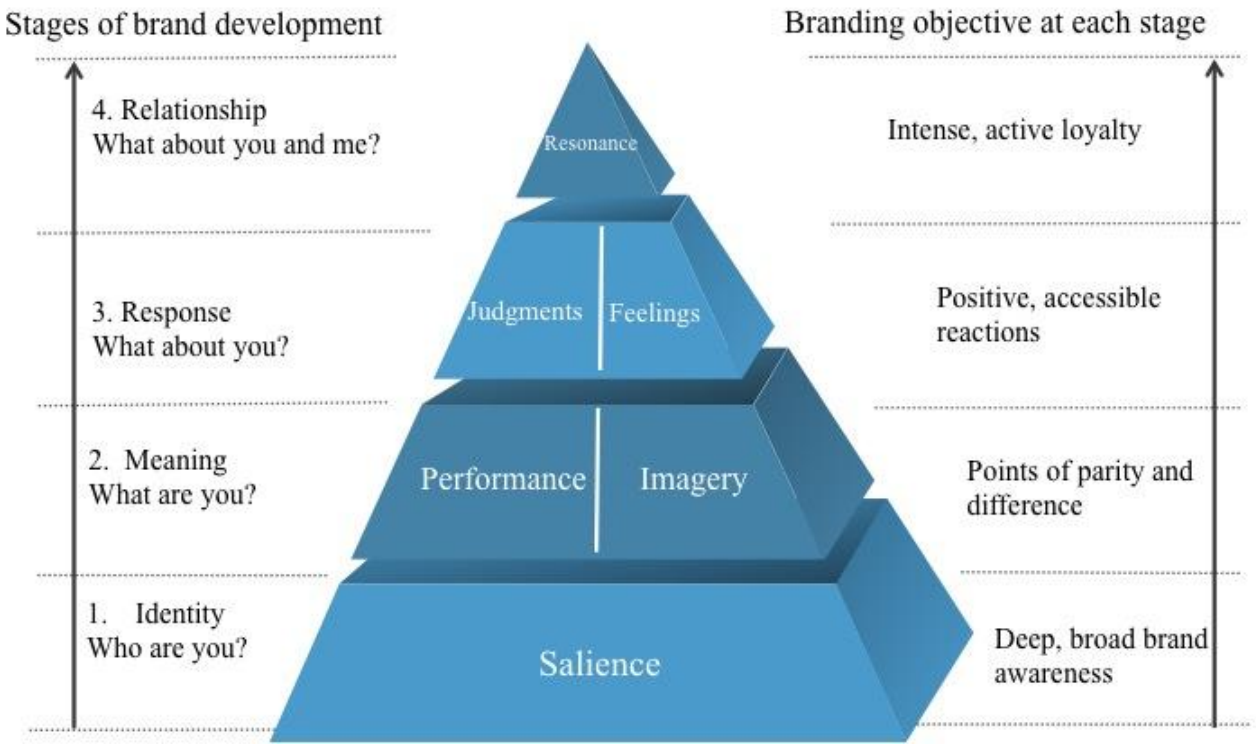
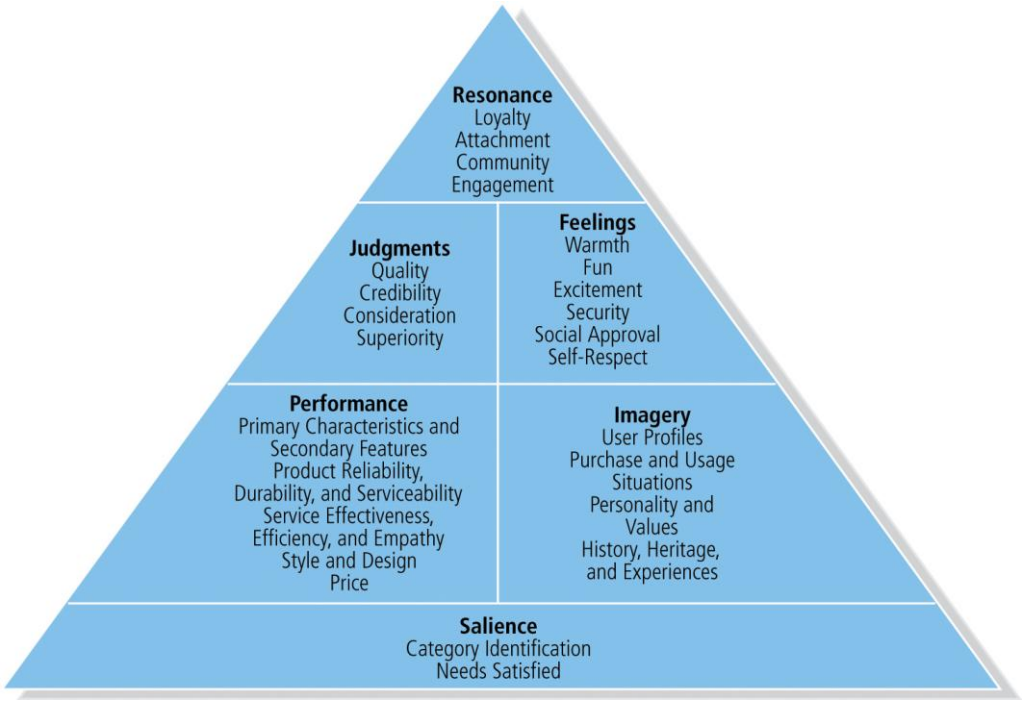


Figure 5: Sub dimensions of CBBE pyramid (Keller, 2008, p.61)



Brand Resonance is the final step of the model and it focuses upon the ultimate relationship between the customer and the brand. It refers to the extent to which customers feel connected to the brand as well as the "level of activity engendered by this loyalty (e.g. repeat purchase rates...)" (Keller, 2001, p.15). The following components of brand resonance will be considered in this research (cf. chapter 3):

- *Behavioural loyalty*: this dimension of brand resonance will be measured by our research.
- *Attitudinal attachment*: This dimension of brand resonance will be measured by our research with the construct of "brand attachment". Keller (2001) specifies that this attachment is relatively important because it enables the distinction between customers buying out of necessity from those buying out of loyalty.
- *Sense of community*: This social phenomenon in which people will feel a kinship or affiliation with other brand users will result in membership in some brand communities.
- *Active engagement*: Keller (2001) states that the strongest affirmation of brand loyalty is when customers "are willing to invest time, energy, money into the brand beyond those expended during purchase or consumption of the brand" (p.15). Active engagement activities mentioned by the author are for instance brand related websites visits, participation in chat rooms etc. Therefore consumers we are looking at in our research are regarded actively engaged since they interact in online brand communities.

2.8. Brand community management

This part of the literature review will enable us to further analyse and compare online brand community management methods analysed in our research. First, we will focus on how brands should deal with the management of their stakeholders. Second, brief considerations will be given to the management within brand communities.

We have just mentioned and discussed at length the importance of online brand communities for companies. This discussion leads us to believe that online brand communities' management is therefore fundamental for value creation. Online brand communities can be

distinguished as one of the stakeholders of the company. Indeed, a stakeholder is defined as "any group or individual who can affect or is affected by the achievement of the organization's objectives" (Cornelissen, 2008, p.10). As shown by the stakeholder model of strategic management (see figure 6), there is a mutual dependency between organizations (e.g. companies) and the stakeholder groups, which means that they influence one another.

Figure 6: Stakeholder model of strategic management (Cornelissen, 2008, p.39)

In order to manage different stakeholders, communication practitioners have categorised them regarding their influence and interest in the company. Therefore, Cornelissen (2008) suggested two different tools for categorizing stakeholders: the stakeholder salience model, and the power-interest matrix. The stakeholder salience model categorises stakeholders according to three attributes: power, legitimacy and urgency. The power-interest matrix however categorises stakeholders regarding their power and their level of interest in the organization's activities. Both models consider the level of importance of the different stakeholders in order to adopt the best strategy to manage them.

In order to do so, Cornelissen (2008) has described three strategies (p.55) (see figures 7 to 9):

- The *informational strategy* (one-way symmetrical model of communication), in which the communication is always one way, from the organization to its stakeholders;

Figure 7: The informational strategy model of communication (Cornelissen, 2008, p.56)

- The *persuasive strategy* (two-way asymmetrical model of communication), where communication flows between an organization and its stakeholders followed by a feedback from the stakeholders;

Figure 8: The persuasive strategy model of communication (Cornelissen, 2008, p.56)

- The *dialogue strategy* (two-way symmetrical model of communication), which consists of a dialogue rather than a monologue.

Figure 9: The dialogue strategy model of communication (Cornelissen, 2008, p. 56)

Regarding brand communities, Heding et al. (2009) state that on the one hand a marketer can act as an observer, and on the other hand, he can act as a facilitator. A marketer as an observer stays uninvolved in a brand community in order to gain valuable insights. Conversely, a marketer as a facilitator should not only try to engage members of the community with the brand, but also with each other, as it is "the social interaction around the consumption of the brand that spurs brand loyalty and contributes to the building of brand meaning" (Heding, Knudtzen, & Bjerre, 2009, p.199).

2.9. Contribution to the literature

The focus of marketers on building long-term loyalty has led to the increasing importance of brand communities in the creation of brand equity. Although much research has been done on brand communities (Arora, 2009; McAlexander, Schouten, & Koenig, 2002; Muniz Jr. & O'Guinn, 2001; Schau, Muñiz, & Arnould, 2009), only a few have investigated online brand communities (Kim, Choi, Qualls, & Han, 2008; McWilliam, 2000), sometimes referred to as virtual communities (Cova & Pace, 2006b; Dholakia, Bagozzi, & Pearo, 2004). Most of the research is therefore focused on brand communities in general. Among them, several studied how these brand communities raise brand loyalty (Algesheimer, Dholakia, & Herrmann, 2005; Dick & Basu, 1994; Kim, Choi, Qualls, & Han, 2008). However, even though much research has been done on brand loyalty in brand communities (offline), only a few have included the process of brand loyalty creation in an online brand community (Jang, Olfman, Ko, Koh, & Kim, 2008).

It is worth mentioning, though, the research of Gøtzsche & Vang Rasmussen (2010) as they analysed the brand loyalty aspect in an online setting, being Facebook pages. However, the research specifies that Facebook pages show similarities and differences with online brand communities. This prevented the authors from categorizing their work within the field of

research on online brand communities. Above and beyond, this discussion shows the relevance of focusing on online brand communities and their process of brand loyalty creation in this research.

Among the research on online brand communities, only a few have investigated both, the antecedents of community commitment, and the consequences of brand commitment (Kim, Choi, Qualls, & Han, 2008). Hence, this research makes the bridge between previous work on both the antecedents of online community commitment and on the creation of brand loyalty. Besides, although participation has been studied by various researchers (Casaló, Flavián, & Guinalíu, 2008; Woisetschläger, Hartleb, & Blut, 2008), none of them considered participation as a moderator. In addition, passive and active participation has not been conceptualized before in an empirical study as two separate constructs as proposed by Joon Koh et al. (2007).

In a second part, the lack of comparison between online consumer-initiated brand communities and online company-initiated brand communities in the literature is rather astonishing. Moreover, Wiegandt (2009) mentions that, so far, an investigation of brand loyalty effects of firm-established brand community membership is missing. As a consequence, this research aims to analyse the differences between these two types of online brand communities in the creation of customers' brand loyalty.

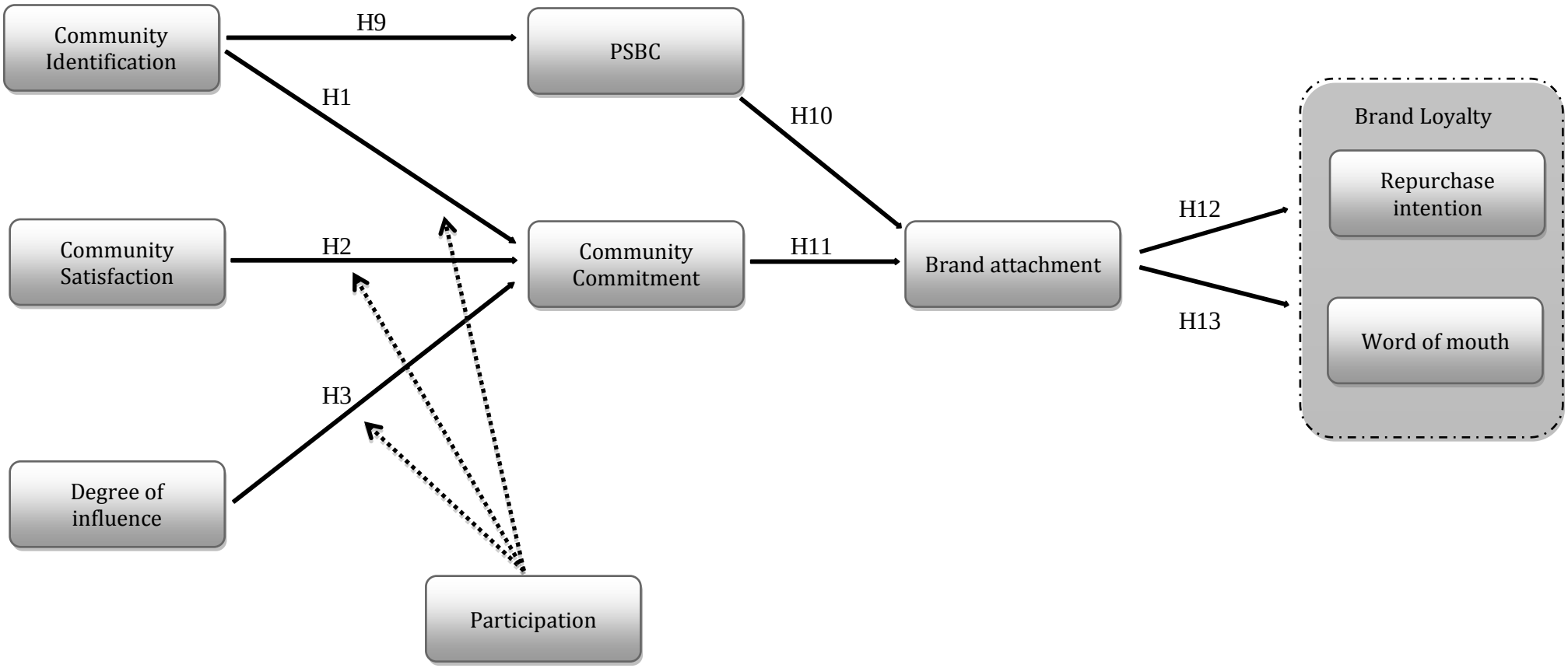
In our attempt to understand the creation of brand loyalty of online brand communities more thoroughly, we hope to give marketers valuable insights as how to manage online brand communities in order to make them thrive and ensure their brand loyalty.

3. Conceptual Framework

This chapter develops a conceptual framework for explaining the effects of online brand community's membership and especially the process of brand loyalty creation. A graphical overview of the conceptual framework is depicted in figure 10. In the following subchapters, the different variables of the conceptual framework are construed. Based on evidence from previous research, causal relationships between constructs are hypothesised.

The conceptual framework introduces community commitment and its three antecedents: community identification, community satisfaction, and degree of influence of community. Additionally, participation is introduced as a moderator influencing the relationship between these antecedents and community commitment. Besides, a connection between community identification and brand attachment through psychological sense of brand community (PSBC) is proposed. As a direct consequence of community commitment, this conceptual framework suggests brand attachment. Finally, it hypothesises that brand attachment ultimately leads to brand loyalty, which is construed of repurchase intention and word of mouth.

Figure 10: Conceptual framework



3.1. Community commitment

In the literature, brand community users have been described as being situated in a "fabric of relationships" (McAlexander, Schouten, & Koenig, 2002, p.38) which consists of relationships between different groups of actors like other community members, or the brand itself. Hence, in order to understand community commitment, it appears important to comprehend the commitment to those relationships. In the organizational behaviour literature, commitment is conceptualized as a multidimensional construct consisting of three components: *affective commitment, normative commitment, and continuance commitment* (Meyer & Allen, 1991). From this point of view, commitment is characterized as the individual's relationship with an organization and it further shows the importance of deciding to continue or end the relationship (Meyer & Allen, 1991). For this research, the construct of community commitment will be considered based on the conceptualization of Kim et al. (2008). However, this conceptualization will be regarded in the light of other research and adjusted if necessary. Consequently, the three above-mentioned components of commitment suggested by Meyer & Allen (1991) are discussed in further detail.

Regarding *affective commitment,* this research incorporates, inspired by Kim et al. (2008), an affective component into the conceptualization of community commitment. Indeed, by referring to several authors Kim et al. (2008) state that commitment can be conceptualized as "an exchange process in which an individual develops loyalty to another individual or organisation drawing in the concept of group or organizational affective commitment" (p.413). However, the authors define community commitment as "the extent of members' psychological attachment to an online community and their belief in the value of the relationship" (Kim, Choi, Qualls, & Han, 2008, p.413). In this context, psychological attachment is not further defined. Psychological can be defined as being "related to the mental and emotional state of a person"[2]. As this research aims at incorporating an affective commitment component into the conceptualization of community commitment, in its definition, psychological attachment will be rephrased as emotional attachment in order to clarify the fact that this component is solely affective and not cognitive.

However, further clarifications have to be given concerning the affective commitment component. Meyer & Allen (1991) define affective commitment as an "employee's emotional attachment to, identification with, and involvement in the organization" (p.67). Obviously,

[2] Oxford Dictionary (online). Available at http://oxforddictionaries.com/definition/psychological [Accessed 12th August 2011].

based on this definition, problems arise in the separation of community commitment from community identification since the latter is included in the definition of the other. As a consequence, we once more emphasize that affective commitment is considered an emotional component, whereas community identification, as described later (see chapter 3.2), is regarded exclusively as a cognitive construct. Hence, this research only construes affective commitment as an individual's emotional attachment and involvement in the community.

Normative commitment refers to an individual's feeling of obligation to continue the relationship (Meyer & Allen, 1991). Only a few research papers mention this normative commitment aspect of community commitment. In order to keep the construct simple and thus interpretative, this research will not include normative commitment in the conceptualization of community commitment. Normative commitment is chosen to be disregarded (contrary to affective and continuance commitment) since it appears to be the least important in regard to brand communities in general and the focus of the research in particular.

Continuance commitment is classified through an awareness of the cost associated with resolving the relationship (Meyer & Allen, 1991). Such an aspect has been mentioned by other research. For instance, Jang et al. (2008) define community commitment as a community member's feeling that "the continuing relationship between their community and themselves is valuable" (p.62). Morgan & Hunt (1994) also state that commitment to a relationship is "defined by the enduring desire to maintain a valued relationship" (p.23). Therefore, we will take into consideration the continuance commitment part in our research, when measuring consumers' community commitment.

It is noteworthy stating that the relationship with a community is also regarded as important and valuable from the consumer's point of view. Commitment to a relationship is defined "as the enduring desire to maintain a valued relationship" (Moorman, Zaltman, & Deshpande, 1992, p.316). This definition shows significant congruence with Morgan & Hunt's (1994) definition. Indeed, the authors state that an individual can be said to be committed to a relationship if he or she considers it to be "so important as to warrant maximum efforts at maintaining it"; and if the individual further believes it to be "worth working on to ensure that it endures indefinitely" (Morgan & Hunt, 1994, p.23). Jang et al. (2008) define community commitment as a community member's feeling that "the continuing relationship between their community and themselves is valuable" (p.62). Kim et al. (2008) also mention, in their

definition of community commitment, the consumers' "belief in the value of the relationship" (Kim, Choi, Qualls, & Han, 2008, p.413).

Consequently, for the purpose of our study, community commitment will be integrating the *affective and continuance commitment* aspects mentioned above. Finally, community commitment will be defined as an individual's emotional attachment to an online community and his desire to maintain a valued relationship with that community.

3.2. Community identification

Regarding the notion of their brand cult study, Acosta & Devasagayam {{22 Acosta,Paul M. 2010/a;}} posit that the true drivers which sustain brand communities lie in the affinity between individual community members (2010). The theoretical underpinning of this mind-set can be found in social identity theory. Social identity theory advances that "individuals make sense of the world by categorizing themselves and others into groups" (Carlson, Suter, & Brown, 2008, p.286). The theory assumes, that social identity is constructed on a cognitive component (a cognitive awareness of one's membership in a social group – self-categorization), an evaluative component (a positive or negative value connotation attached to this group – self-esteem), and an emotional component (a sense of emotional involvement with the group – affective commitment) (Ellemers, Kortekaas, & Ouwerkerk, 1999). In organizational behaviour research, there is some confusion about the conceptualization and distinction of the two constructs identification and commitment. Some authors treated these constructs as being equivalent (Podsakoff, Williams, & Todor, 1986), whereas others confused the two. For instance, identification has been defined as "the appropriation of and commitment to a particular identity" (Nelson N. Foote, 1951, p.17). However, more recent research clearly distinguishes between the two constructs (Adler & Adler, 1987; Bergami & Bagozzi, 2000; Mael & Ashforth, 1992). It is argued that identification is self-defined and implies oneness with the organization. On the contrary, commitment is exchange-based in so far as it implies that individuals and the organization are separate psychological entities (van Knippenberg & Sleebos, 2006). In our research, we also apply a clear distinction by introducing the two constructs community identification and community commitment. As a consequence, we treat community identification solely as a cognitive and evaluative construct since the emotional component is already included in the community commitment construct.

According to social identity theory, social identification is defined as "the perception of belonging to a group with the result that a person identifies with that group (i.e. I am a

member)" (Bhattacharya, Rao, & Glynn, 1995, p.47). This definition may appear somewhat unclear in the sense that it consists of two components. There is the perception of belonging as the first component, and there is a person's identification with the group as the second component. However, the definition proposes the second component to be a result of the first component. Hence, the second component (a person identifying with the group) can be said to have more importance. The study of Carlson et al. (2008) builds its definition more clearly on this second component. Here, identification is referred to as "the degree of overlap between an individual's self-schema and the schema s/he holds for another target object" (Carlson, Suter, & Brown, 2008, p.286). For the purpose of our study, we therefore define brand community identification, building on the definition of Carlson et al. (2008), as follows: Brand community identification is the degree of overlap between an individual's self-schema and the schema s/he holds of a brand community and its members.

3.3. Link between community identification and community commitment

Based on social identity theory, Ashfort & Mae (1989) suggest that three distinct consequences of social identification in organizations exist, one of them being that if an individual perceives an organization to embody its identity, this individual tends to support the focal organization. Hence, "it is likely that identification with an organization enhances support for and commitment to it" (Ashforth & Mael, 1989, p.26). Consequently, the following hypothesis is suggested.

H1: *Community identification has a significant postive influence on community commitment.*

3.4. Community satisfaction

The literature includes conceptualizations of either transaction-specific or overall satisfaction (Cronin Jr. & Taylor, 1994). Following the approach of Woisetschläger et al. (2008), we consider overall satisfaction as it is said to be a better predictor of community's past, present, and future performance (Woisetschläger, Hartleb, & Blut, 2008). Accordingly, satisfaction has been described as the overall evaluation of performance, and it is said to be based on prior experience (Rust & Oliver, 1994). A similar definition is used by Casalo et al. (2008) who indicate that satisfaction is not merely the result of specific interactions with single community members. It is the "global evaluation of the relationship history between the

parties" (Casaló, Flavián, & Guinalíu, 2008, p.24). Based on the above-mentioned definitions and due to their similarities, we define brand community satisfaction as the individual's overall evaluation of community performance based on prior experience.

3.5. Link between community satisfaction and community commitment

The direct link between community satisfaction and community commitment has not yet been studied with regard to brand communities. However, a link between satisfaction and commitment has been found in service marketing research (Kelley & Davis, 1994; Shemwell, Yavas, & Bilgin, 1998). In their study, Shemwell et al. (1998) found a direct positive relationship between satisfaction and both continuance and affective commitment. Moreover in an empirical study of a health club, Kelly & Davis (1994) found that satisfied members were committed to the organization. Above and beyond, a further connection between those two constructs is suggested in the conceptual model of relationship dissolution (Hocutt, 1998). The relationship dissolution model proposes that commitment to a relationship is influenced by three constructs: satisfaction with the service provider, quality of alternative providers, and investments in the relationship. The model further posits that if the level of satisfaction is high, the commitment to the relationship is strong. As a consequence, we propose a positive relationship between community satisfaction and community commitment.

H2: *Community satisfaction has a significant positive influence on community commitment.*

3.6. Degree of influence

As the last antecedent of participation, Woisetschläger et al. (2008) identify the perceived degree of influence on the community. Inspired by Obst et al. (2002) (Obst, Smith, & Zinkiewicz, 2002), they define it as "an individual's need to have some control and influence" (Woisetschläger, Hartleb, & Blut, 2008, p.244). For the purpose of this study, this definition will be considered but yet be slightly adapted. To begin with, this degree of influence definition is tautological. As influence can be defined as "a power affecting a person, thing, or course of event"[3], "influence" will be replaced by it. Moreover, it is unclear why degree of influence is defined as "an individual's need". Neither did an investigation of the initial article

[3]The Free Dictionary online. Available at http://www.thefreedictionary.com/influence. [Accessed 17 August 2011]

by Obst et al. (2002) – by which the degree of influence definition of Woisetschläger et al. (2008) was inspired – clarify this issue, nor did a connection between the "individual's need" and the items of the construct be found. As a consequence, we define degree of influence as an individual's perceived degree of control and power over a community.

3.7. Link between degree of influence and community commitment

It has been proposed that "members are more attracted to a community in which they feel that they are influential" (McMillan & Chavis, 1986, p.12). In the organizational behaviour literature, influence, labelled mattering in this context, has been conceptualized as an underlying dimension of perceived organizational membership (Masterson & Stamper, 2003). The authors argue that a greater level of influence is likely to prompt a greater perception of organizational membership. Based on their definition, perception of organizational membership reflects individuals' overall evaluation of the relationship with the organization. Consequently, one might argue that a higher degree of influence results in a better evaluation of the relationship. Thus, since community commitment is partially expressed through an individual's desire to maintain a valued relationship, we propose a positive correlation between degree of influence and community commitment. We hypothesize that the higher the degree of influence, the greater the commitment to the community will be.

H3: *Degree of influence has a significant positive influence on community commitment.*

3.8. Participation

The importance of consumer participation in brand communities has been widely acknowledged by the literature (Bagozzi & Dholakia, 2002; Casaló, Flavián, & Guinalíu, 2010; Koh & Kim, 2004; McWilliam, 2000). McWilliam (2000) describes consumer participation as a necessity in holding brand communities together and making them thrive. Moreover, Bagozzi & Richard (2002) depict active participation as an important driver for content creation. In turn, content creation is considered as a shaping force of brand communities. Hence, in order to sustain brand communities and utilize them as a marketing tool to build brand loyalty, it appears important for companies to understand participation thoroughly.

Madupu & Cooley (2010) point out that participation in online brand communities can either be interactive or non-interactive. Interactive participants share information and experiences,

just as they respond to other members' inquiries by posting messages. In contrast, non-interactive participants exhibit browsing or reading behaviour only. Therefore, non-interactive participation is often referred to as passive participation, given that members do not actively contribute to the community or at least not by means that are visible to other members (Madupu & Cooley, 2010). Since these activities are promoted by different factors, it is suggested to treat active and passive participation separately as two different constructs (Joon Koh, Young-Gul Kim, Butler, & Gee-Woo Bock, 2007). This distinction was also made by Algesheimer & Dholakia (2006) who referred to "community enthusiasts" and "lurkers" in this context. In our study, active participation is defined as the exhibition of interactive behaviour, which is observable to other community members (such as posting or participating in brand community activities like contests for example). In contrast, passive participation is defined as the pursuit of non-interactive behaviour not observable to other community members. Passive participation also includes what is referred to as active lurking in the brand community literature (Madupu & Cooley, 2010). Active lurkers (hence passive participants), for instance, retrieve information from the community and may even pass it on to individuals outside the community without contributing to it. In some cases, active lurkers even contact the original poster of information by other means, such as, telephone or e-mail, thus continuing the exchange of information aside of the visible content of the community, but not outside the community itself (Madupu & Cooley, 2010).

Xu et al. (2008) explain participation as actions and individual efforts. Whereas participation is thus a behavioural construct, involvement is described as being a psychological state. In the literature the exact relationship between involvement and participation is vague. On the one hand, involvement is said to be a determinant of the level of participation (Xu, Jones, & Shao, 2009), on the other hand, authors propose that higher participation leads to a higher level of involvement (Casaló, Flavián, & Guinalíu, 2008). However, the latter statement has not been empirically validated. Albeit the sparse literature about community involvement, Madsen (2010) considers the construct as more important for her academic work since it adopts a psychological view without considering the behavioural part mentioned above. In our research, we will integrate both behavioural and attitudinal constructs, as we believe both to be relevant and to influence consumer´s brand loyalty. We will therefore integrate participation as the behavioural construct and commitment as the attitudinal construct in our framework. Unlike involvement, participation is considered as a precursor of loyalty in various brand community studies (Holland & Baker, 2001; Madupu & Cooley, 2010; Shang,

Chen, & Liao, 2006; Woisetschläger, Hartleb, & Blut, 2008). By building on previously established links, a higher validity probability for our conceptual framework is ensured. Nonetheless, in order to keep the framework homogenous in terms of attitudinal constructs, participation will be considered as a moderator influencing the relationship between community identification, community satisfaction, and degree of influence on the one hand, and community commitment on the other.

3.8.1. Participation as a moderator

Woisetschläger et al. (2008) conceptualize and empirically test antecedents and consequences of brand community participation. Their study determines the following three drivers of participation: identification with the brand community, satisfaction with the brand community and the perceived degree of influence (Woisetschläger, Hartleb, & Blut, 2008). However, these drivers will not be considered as antecedents of participation in our study, conversely, they will rather be regarded as antecedents of community commitment. Given their direct influence on participation, one might suppose that participation also has its influence on the relationship between these three antecedents and community commitment. As a result, our conceptual framework proposes participation as a moderator influencing these relationships. In our study, participation is considered according to two dimensions: interactivity of participation and frequency of participation. Interactivity of participation will be differentiated as either being active (interactive) or passive (non-interactive). In contrast, the dimension of frequency will simply be determined through quantity. The following sections explain the moderation effects along the two dimensions of participation in the relationship between the antecedents and community commitment.

3.8.2. Link between community identification and community commitment

As mentioned before, individuals identify with a community when their self-schema shows certain congruence with the schema they hold of a brand community and its members. Thus, individuals identify with a brand community when they believe they belong to and perceive themselves to be representatives of the brand community (see community identification items, cf. appendix B). Consequently, one might argue that individuals who frequently participate are more likely to consider themselves as representing or belonging to the online brand community compared to other individuals who only rarely participate. Hence, we hypothesize that the frequency of participation positively moderates the relationship between community identification and community commitment.

H4a: *The influence of community identification on community commitment will increase when frequency of active participation increases.*

H4b: *The influence of community identification on community commitment will increase when frequency of passive participation increases.*

As mentioned before, active participation is an interactive behaviour that is observable by other community members. Community members shape and form online brand communities through active participation and are likely to change the perception of such an online brand community. Hence, it is likely that active participation has a stronger influence on the relationship between community identification and community commitment than passive participation does.

H5: *Active participation has a stronger influence on the relationship between community identification and community commitment than passive participation.*

3.8.3. Link between community satisfaction and community commitment

According to our definition of community satisfaction, individuals are satisfied with a community based on their evaluation of prior experience. It has been suggested that delighting the customer makes it more difficult satisfying him in the future (Rust & Oliver, 2000). A same phenomenon was found by a study of collective hedonic services, within which Drengner et al. (2010) suggested that the influence of overall satisfaction on loyalty decreased when frequency of use increased. Correspondingly, another study showed the moderating effect of frequency on the link between satisfaction and loyalty when relating to the frequency of theatre visits (Garbarino & Johnson, 1999). Since the creation of loyalty within online brand communities involves prior commitment to the community, it appears realistic to draw a link between community satisfaction and community commitment moderated by frequency of use. Frequently participating individuals are likely to take their level of satisfaction for granted after a certain period of time, thus, making community satisfaction less relevant as an antecedent of community commitment. Hence, one might argue that the influence of community satisfaction on community commitment decreases when participation increases.

H6a: *The influence of satisfaction on community commitment decreases when active participation increases.*

H6b: *The influence of satisfaction on community commitment decreases when passive participation increases.*

Five different motives can be found to determine why consumers participate in brand communities: information, self-discovery, social integration, social enhancement motive, and entertainment motives (Dholakia, Bagozzi, & Pearo, 2004; Madupu & Cooley, 2010). The level of satisfaction is most likely partially related to how well these motives are met by the online brand community. Community users who seek to satisfy their information motive are probably mostly passive participants, whereas individuals who are driven by social integration or social enhancement motives have to actively participate in order to fulfil their needs. Thus, it is only the satisfaction and not the active or passive participation that determines the level of community commitment. As a consequence one might argue that passive and active participation do not differ in influencing the relationship between community satisfaction and community commitment.

H7: *No difference can be found between active and passive participation as a moderator influencing the relationship between community satisfaction and community commitment.*

3.8.4. Link between degree of influence and community commitment

Finally, an individual's need to have some control and power (degree of influence) is hypothesized to predict community commitment. Logic suggests that individuals can fulfil their need to have some control and influence by frequently participating in the brand community. By posting and reading forum posts, responding to other members' queries, or simply browsing the community, frequently participating members can keep track of brand community occurrences. One might argue that the more frequently members actively participate in the community, the higher the level of influence can be expected to be. Accordingly, we suggest a positive moderating effect on the relationship between degree of influence and community commitment for active participants. However, one might argue that such an effect does not occur for passive participation since influencing the community requires members to actively participate in it.

H8a: *The influence of degree of influence on community commitment increases when frequency of active participation increases.*

H8b: *There is no effect of passive participation on the influence of degree of influence on community commitment*.

3.9. Psychological Sense of Brand Community (PSBC)

PSBC is an abbreviation for *Psychological Sense of Brand Community* and it is defined as "the degree to which an individual perceives relational bonds with other brand users" (Carlson, Suter, & Brown, 2008, p.286). In the literature, community identification and PSBC seem very close to each other, though they are different. Indeed, while community identification focuses on one's *identification* with the group (the community), PSBC is related to the *perception of bonds* with other brand users (in general). However, beyond the definition, it is important to look deeper into the construct of PSBC to understand it thoroughly. Carlson et al (2008) further specified that the drivers of PSBC are the degree to which individuals identify with (a) the brand itself (i.e. identification with the brand) and (b) the group of all individuals who purchase and utilize the brand. (i.e. identification with other brand users). Therefore there is a difference between the meaning of the term "group" between the identification with the group as mentioned in our first construct, and the identification with the group for the drivers of PSBC. Indeed, for our first construct the "group" means the community, while for PSBC, it refers to the other brand users (Carlson, Suter, & Brown, 2008).

3.10. Links between PSBC and other latent variables

In the brand community literature, many links are uncovered between PSBC and the other constructs of our framework. As mentioned above, Carlson et al. (2008) empirically demonstrated the existence of a link between *community identification* and *PSBC:* "Identification with the group will have a positive influence on psychological sense of brand community" (Carlson, Suter, & Brown, 2008, p.286). The same authors also demonstrated the link between PSBC and brand commitment in their study (Carlson, Suter, & Brown, 2008). As one might argue that brand commitment and brand attachment share certain similarities in their conceptualization, we propose the following two hypotheses.

H9: *Community identification has a significant influence on psychological sense of brand community.*

H10: *Psychological sense of brand community has a significant positive influence on brand attachment.*

3.11. Brand loyalty: behavioural and attitudinal construct

Brand loyalty has often been discussed regarding two approaches: the behavioural and attitudinal approach (Sung & Campbell, 2007; Warrington & Shim, 2000; Yi & La, 2004). Although over the years more psychological aspects have been considered to understand the concept of brand loyalty, it remains controversial. Traditionally, brand loyalty is referred to as a behavioural construct that is defined and measured by repeated purchase of a single brand over time (Warrington & Shim, 2000; Yi & Jeon, 2003), not taking into account the attitudinal aspect of it. The attitudinal aspect of loyalty, often referred to as "brand commitment" {50 Traylor, M.B. 1981}} has been defined as an "emotional or psychological attachment to a brand within a product class" (Lastovicka & Gardner (1999) "Components of involvement" in Beatty & Kahle, 1988).

On this basis, some research has taken into consideration the construct of brand commitment instead of brand loyalty (Traylor, 1981) underlining brand loyalty's inability, in its traditional definition, to distinguish between purchase behaviour attributable to convenience and commitment (Yi & Jeon, 2003). This is also referred to as "positive repeat buying" versus no-choice situations (Arantola, 2000). Therefore, brand commitment reflects the degree to which a brand is "firmly entrenched as the only acceptable choice within a product class" (Traylor, 1981), whereas brand loyalty can be considered as a way to simplify decision-making (Warrington & Shim, 2000). For the same reason, when looking at the links between both constructs, some authors have discussed the fact that brand commitment implies brand loyalty, but not vice versa (Quester & Lim, 2003; Traylor, 1981). Oliver (1999) also showed the evidence of attitudinal loyalty being an antecedent of behavioural brand loyalty by categorizing brand loyalty in four parts (cognitive, affective and conative and action loyalty phases).

Hence, our discussion underlines the complexity of the construct of brand loyalty and the necessity of an emotional relation towards a brand in order to be brand loyal. We will therefore take brand loyalty as a general behavioural construct, and relate to the emotional relation mentioned above in the construct of brand attachment.

In the next paragraphs, we will introduce the concept of brand attachment and define brand loyalty. By doing so, we will distinguish both constructs by showing that the difference between them is mainly the length of time for which the consumer will maintain a

relationship with a brand.

3.12. Brand attachment

Bowlby (1988) defines attachment as “an emotion-laden target-specific bond between a person and a specific object” (Bowlby (1988) "A Secure Base: Clinical Applications of Attachment Theory" in Park, MacInnis, & Priester, 2006, p.7). We will consider this definition for our research. Thus, brand attachment is defined as an emotion-laden target-specific bond between a person and a brand. We refer here to the bond that connects the brand to the self. Whan Park et al. (2010) researched on brand emotional attachment building a measurement scale for the strength of consumers’ emotions in regards to brands. Therefore brand attachment will be measured regarding the strength of consumers bonds with brands at a certain point in time. It is noteworthy to mention that it is related to as an emotional construct.

It is also noteworthy to mention that the construct of brand attachment is chosen instead of brand commitment because the latter is often defined in the same way as brand loyalty, or both are undistinguishable. However, Carlson (2008) defines it as ‘a deep emotional or psychological attachment to a brand that reflects the degree to which individuals view a brand as the only acceptable choice within a product category’ (Carlson et al (2008) in Madsen, 2010, appendix A, private communication with Carlson)(Carlson, Suter, & Brown, 2008). Therefore, brand commitment and brand attachment are related but they differ in one aspect “relationship continuance” or “length of the emotional bond”. Indeed commitment includes this aspect of long-term relationship whereas brand attachment focuses on the relationship at present.

3.13. Link between community commitment and brand attachment

As already mentioned before, brand communities have been envisioned as a customer-customer-brand triad (Muniz Jr. & O'Guinn, 2001). Hence, since the brand is regarded as being a part of this web of relationships, one might argue that if an individual is committed to a brand community, he might as well also develop attachment to the brand around which the community is formed. Moreover, a strong positive relationship between online community commitment and brand commitment has already been established by other research such as Kim et al. (2008). As we explained, brand attachment differs from brand commitment in the

length of the relationship between the consumer and the brand. Therefore, if there is a link between online community commitment and brand commitment, it is likely that there also is a link between online community commitment and brand attachment.

Madsen (2010) found a link between involvement and community commitment. In her research, involvement is considered as "a belief that the participation in the online community is both important and personally relevant" (p.12). This connection reinforces the link between community commitment and brand attachment since community involvement is a rather similar construct to community commitment and brand commitment implies brand attachment.

H11: *Community commitment has a significant positive influence on brand attachment.*

3.14. Link between brand attachment and brand loyalty

As previously mentioned, the difference between both constructs lies in the length of the relationship between the consumer and the brand. Whereas a consumer is attached to a brand at a certain point of time, a brand loyal customer is willing to stay in a long-term relationship (Van Lange, 1997).

A link between brand attachment and brand loyalty has been established by Whan Park et al. (2010). Their research showed that emotional attachment is a predictor of brand loyalty and price premium. Moreover, according to Keller (2008), resonance is the ultimate level of the CBBE (Customer Based Brand Equity) and therefore implies loyalty. He states that resonance requires a strong personal attachment to a brand (Keller, 2008). Furthermore, Aaker (1991) states that brand loyalty is a measure of the attachment customers have to a brand.

Jacoby & Chestnut () state that the integration in a brand community conveys an emotional and behavioural attachment to a brand. Moreover, McAlexander et al. (2002) found in their research that "the more a customer is integrated into the brand community and the more loyal the customer is in consuming the brand" (p.48). Hence, we can state that there is a link between brand attachment and brand loyalty.

Furthermore, Matzler et al. (2006) empirically found a link between brand affect and one of the components of brand loyalty i.e. repeat purchase.

3.15. Brand loyalty

Several different definitions of loyalty can be found in the literature. Even though most of the authors agree on the fact that loyalty includes repeated purchase of a single brand over time (Warrington & Shim, 2000; Yi & Jeon, 2003), some go further than this definition. Oliver (2010), for instance, defines loyalty as a "deeply held commitment to rebuy or re-patronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing [...]" (Oliver, 2010, p.432). This definition underlines two important aspects. Firstly, the attitudinal aspect of loyalty that is an antecedent of repeat purchase and secondly, the long term consumer-brand relationship enabling the consumer to rebuy consistently. The length of this commitment is also underlined by Oliver (2010) who mentions that maintaining loyalty requires consumers' willingness to continue interacting with the brand (Oliver, 2010, p.424).

In the literature, brand loyalty is most commonly measured as "repeated purchase of a single brand over time". This measurement is usually implemented in-store, by tracking customers' purchases (scan, loyalty programs). However, this cannot be the only pattern to be considered when looking at brand loyalty (Oliver, 2010).(Oliver, 1999) Moreover, in our research it will be hard to measure the past behaviour of the community members. Therefore, as mentioned in some research, we will rather take into account repurchase intentions as one of the components of brand loyalty (Jacoby & Chestnut, 1978b; Oliver, 2010; Yi & La, 2004) together with word of mouth (cf. chapter 3.15.2.). Oliver (2010) underlines the importance of this intention by stating that it is one of the components of true brand loyalty.

3.15.1. Repurchase intention

Repurchase intention has been described as a component of brand loyalty (Brunner, Stöcklin, & Opwis, 2008; Oliver, 2010; Yi & La, 2004). Since a link between brand attachment and brand loyalty has already been established in the literature, we conjecture a positive relationship between brand attachment and repurchase intention.

H12: *Brand attachment has a significant positive effect on repurchase intention.*

Yi and al. (2004) conducted research partly focused on repurchase intention. They discussed the reliability of former research on repurchase intention as part of the construct of loyalty. Therefore they made the distinction between the two common indicators of repurchase

intention as part of loyalty: repeat purchase intention and repurchase probability. They mentioned that both have been used interchangeably in order to predict future behaviour. However, they made a clear distinction between them, specifying that repurchase probability is a behavioural expectation. They further explained that consumers use their present behavioural intentions in order to form a behavioural expectation judgment. In so doing, they made some adjustments that reflect the possible impact of involuntary factors and unforeseen changes in their intentions. Therefore, this discussion shows the importance of taking into consideration both repeat purchase intention and repurchase probability when looking at the repurchase intentions of a brand (e.g.: "How often do you intend to rebuy an IKEA product" and "How high is the probability that you will rebuy an IKEA product?") (Ida Gøtzsche & Kathrine Vang Rasmussen, 2010; Yi & La, 2004). Consequently, repurchase intention is defined as the expressed intention of rebuying the brand and the probability with which to do so.

It is noteworthy to mention that since repurchase intention is considered in this research, we assume that brand community members have purchased products of the brand in the past.

3.15.2. Word of mouth (WOM)

Research suggests the importance of word of mouth has a considerable influence on companies' average growth rate, and thus, should be measured by it (Reichheld, 2003). A similar result is revealed in a survey by *The Listening Company Agency* and *The London School of Economics and Political Science*. They found word of mouth advocacy to be a significant predictor of annual sales growth (Kottler, Keller, Bradey, Goodman, & Hansen, 2009). Besides its importance for companies' fortunes, word of mouth is said to be one of the measurement dimensions of brand loyalty (Brunner, Stöcklin, & Opwis, 2008; Ida Gøtzsche & Kathrine Vang Rasmussen, 2010; Keller, 2008; Yi & La, 2004). As a consequence, one might argue since a causal relationship between brand attachment and brand loyalty was put forward by the research (cf. chapter 3.17), a similar relationship exists towards word of mouth. We therefore hypothesize the existence of a direct relationship between brand attachment and word of mouth.

H13: *Brand attachment has a significant positive influence on word of mouth.*

Word of mouth can be defined as "an interpersonal communication of products and services (market offerings) where the receiver regards the communicator as impartial" (Kottler, Keller, Bradey, Goodman, & Hansen, 2009, p.703). Another definition by Arnhold (2010) considers

three essential elements. First, word of mouth is informal, mostly oral interpersonal communication. Second, the content of word of mouth communication is commercial in nature. Third, word of mouth communicators are seemingly unbiased, thus, they are perceived not to be commercially motivated (Arnhold, 2010). Based on these elements, word of mouth is defined as "[...] a person-to-person communication concerning a brand, a product or a service whereby the communicator is perceived as non-commercial by the receiver" (Arnhold, 2010, p.78). We will take this definition into account for our research.

It is worth mentioning that WOM can either be negative or positive regarding the emotional relationship established with the brand (Arantola, 2000; Buttle, 1998). However, this research will only consider positive word of mouth. Firstly, word of mouth is seen as a consequence of brand attachment in this research. Consequently, it is very unlikely that brand attachment, which is positive in its nature, may lead to negative word of mouth. Secondly, this research focuses on brand loyalty as an outcome of brand communities. Negative word of mouth cannot be seen as a component of brand loyalty, and thus, loses its relevance to this research.

Moreover, several other conceptualizations of word of mouth can be found in the literature. It used to be conceptualized as being face-to-face communication. However, it is also uttered online on the Internet (Carl & Noland, 2008). This study does not seek to differentiate between online and offline word of mouth. Both online and offline word of mouth are considered in the conceptualization of word of mouth. Besides, researchers distinguish between organic and amplified word of mouth (Arnhold, 2010), also sometimes referred to as everyday and institutional word of mouth respectively (Carl, 2006). Organic word of mouth occurs when individuals "are happy with a product and have a natural desire to share their support and enthusiasm" (Arnhold, 2010, p.83), whereas amplified word of mouth occurs "when marketers launched campaigns in order to accelerate WOM in existing or new communities" (Arnhold, 2010, p.83). Thus,(Carl & Noland, 2008; Carl, 2006) organic word of mouth is only passively enhanced through satisfaction with the brand, product, service, company et cetera, whereas amplified word of mouth is deliberately created as a consequence of a marketing campaign. This research is mostly interested in organic word of mouth enhanced by the two focal online brand communities. However, when measuring the WOM construct, this research cannot specifically distinguish between organic and amplified word of mouth since its antecedents are practically untraceable. Consequently, a distinction between organic and amplified word of mouth is not pursued in this research.

3.16. Wrap up

Table 1: Definitions

Participation	Active participation	The action of exhibiting interactive behaviour which is observable to other community members (such as posting or participating in brand community activities like contests for example).
	Passive participation	The action of pursuing non-interactive behaviour which is not observable to other community members.
Community identification	The degree of overlap between an individual's self-schema and the schema s/he holds of a brand community and its members.	
Community satisfaction	An individual's overall evaluation of community performance based on prior experience.	
Degree of influence	An individual's perceived degree of control and power over a community.	
PSBC	The degree to which an individual perceives relational bonds with other brand users.	
Community commitment	An individual's attachment to an online community and his desire to maintain a valued relationship with that community.	
Brand attachment	An emotion-laden target-specific bond between a person and a brand.	
Brand loyalty	Repurchase intention	The expressed intention of rebuying the brand and the probability with which to do so.
	WOM	A person-to-person communication concerning a brand, a product or a service whereby the communicator is perceived as non-commercial by the receiver.

Table 2: Hypotheses

	Hypothesis
H1	Community identification has a significant postive influence on community commitment.
H2	Community satisfaction has a significant positive influence on community commitment.
H3	Degree of influence has a significant positive influence on community commitment.
H4a	The influence of community identification on community commitment will increase when frequency of active participation increases.
H4b	The influence of community identification on community commitment will increase when frequency of passive participation increases.
H5	Active participation has a stronger influence on the relationship between community identification and community commitment than passive participation.
H6a	The influence of satisfaction on community commitment decreases when active participation increases.
H6b	The influence of satisfaction on community commitment decreases when passive participation increases.
H7	No difference can be found between active and passive participation as a moderator influencing the relationship between community satisfaction and community commitment.
H8a	The influence of degree of influence on community commitment increases when frequency of active participation increases.
H8b	There is no effect of passive participation on the influence of degree of influence on community commitment.
H9	Community identification has a significant influence on psychological sense of brand community.
H10	Psychological sense of brand community has a significant positive influence on brand attachment.
H11	Community commitment has a significant positive influence on brand attachment.
H12	Brand attachment has a significant positive effect on repurchase intention.
H13	Brand attachment has a significant positive influence on word of mouth.

4. The Case Company

This chapter introduces the case of the research. First, a brief introduction of the IKEA company is given. In the following two subchapters, the consumer-initiated online brand community (IKEAFANS) and the brand-initiated online brand community (IKA FAMILY hej Community) are described. These companies are chosen in order to test the previously mentioned framework of our research.

4.1. The IKEA Company

The IKEA Group is a global retail brand currently present in 41 countries generating annual sales of more than 23.1 billion Euros. It is the 41st best global brand according to Business Week[4] and the world's largest furniture retailer (Euromonitor, 2011). In 2010, it had a network of 316 stores over the world, making it the most geographically diversified furniture and furnishings retailer in the world. IKEA is still expanding as it has opened more than 79 new outlets within the last five years and is about to enter Africa in 2012. In 2010, IKEA counted 699 Million visitors in its stores (Euromonitor, 2011).

4.1.1. Creation

This successful company was founded in Sweden, hence having a blue and yellow logo. Ingvar Kamprad created the company in 1926, when he was seventeen years old. He first began as an entrepreneur when he was five, selling matches[5]. Then, with an amazing business sense, Ingvar Kamprad managed to build a global home furnishing empire starting in 1943. The name IKEA comes from the initials of Ingvar Kamprad, I and K, plus the first letters of Elmtaryd and Agunnaryd, which are the names of the farm and village he grew up in[6].

4.1.2. Corporate structure

The corporate structure of IKEA is complex. Without going into detail, this section gives a brief introduction to it. The IKEA group is held by the Stichting Ingka Foundation, a Dutch-registered, "tax-exempt, non-profit-making legal entity"[7]. The Stichting Ingka Foundation, owns the INGKA Holding, a private Dutch-registered company, the holding company for

[4] Business Week (online). Available at http://images.businessweek.com/ss/06/07/top_brands/source/41.htm [Accessed 12 July 2011]
[5] IKEA website. Available at http://www.ikea.com/ms/en_GB/about_ikea/facts_and_figures/facts_figures.html [Accessed 12 July 2011].
[6] The IKEA group website. Available at http://franchisor.ikea.com [Accessed 12 July 2011].
[7] The Economist (online). Available at http://www.economist.com/node/6919139?story_id=6919139 [Accessed 12 July 2011]

most of the IKEA stores of the World.[8] However, Inter IKEA Systems B.V. is the worldwide franchisor of the IKEA Concept and trademark. This is also a private Dutch company, which is not part of the Ingka Holding group.[9]

4.1.3. Vision and concept

IKEA's vision is to create a better everyday life for the many people. Its business idea is "to offer a wide range of well-designed, functional, home furnishing products at prices so low that as many people as possible can afford them"[10]. Therefore, IKEA developed a new 'concept' in the furniture industry, succeeding in combining low prices/fair quality and well designed home furnishing products.

4.2. IKEA FAMILY hej Community

The IKEA FAMILY hej Community is a company-initiated online brand community launched in February 2010 by IKEA. Its website address is http://www.hej-community.de/. The community language is German and thus the community is targeted at consumers from the German-speaking countries Germany, Austria, and Switzerland. According to Claudia Willvonseder, the IKEA marketing director of Germany, the IKEA FAMILY hej Community is aiming to inspire and encourage people to talk about home furnishing.[11] Today, the IKEA FAMILY hej Community has about 54.000 registered members.

Community members have the possibility of using various features. After registering, members can design a room, according to their personal preference, by choosing between various furniture and other decoration items (of which all of course are IKEA products). The room is accessible to other members who have the possibility of rating it and leaving a comment. Besides designing a room, members can share personal information with other users through their profile page by indicating, for instance, their interests or their philosophy of life. Moreover, the community features a photo upload function for users to share private pictures.

[8] The Economist (online). Available at http://www.economist.com/node/6919139?story_id=6919139 [Accessed 12 July 2011]
[9] The IKEA group website. Available at www.franchisor.**ikea**.com [Accessed 16 July 2011]
[10] The IKEA website http://www.ikea.com/ms/en_US/about_ikea/the_ikea_way/faq/index.html [Accessed 18 July 2011]
[11] The Horizont.net (online). Available at http://www.horizont.net/aktuell/digital/pages/protected/Ikea-laedt-Fans-und-Freunde-in-die-Hej-Community-ein_89957.html [Accessed 14 July 2011]

Discussions take place in the community forum. Here, users can create a new topic or leave their comment on an already established threads. By pressing a button on the website, comments can be rated or be reported. If the content is offensive or inappropriate, the hej team (IKEA employees) will decide if the comment has to be deleted. Topic discussions are lead by moderators. Currently, there are 22 moderators in the IKEA FAMILY hej Community. Each and every member can apply at any time to become a moderator. After applying, the hej team decides which users actually become moderators. They are assigned to different discussion threads in order to encourage continuous user participation and to limit the discussion to its actual topic. Besides the forum, the IKEA FAMILY hej Community offers its members the opportunity to interact with other users through private messaging. Furthermore, the friendship function enables users to become friends with other users. Within a privacy settings section, users have the possibility to restrict parts of their profile so that only friends can see certain information.

4.3. IKEAFANS

IKEAFANS is an independent online community that relates globally to IKEA. Its website address is http://www.ikeafans.com/. Presently, it has 187,869 members that share information about investigating, planning, assembling and installing IKEA products. In the first half-year of 2008, the IKEAFANS community had visitors from 192 countries worldwide of which over 70% were from the United States. The second and third largest percentages of visitors were, respectively, from Canada (9.51%) and the United Kingdom (5,68%)[12].

The IKEAFANS online community was created in March 2005 by Susan and James Martin in the USA. They started it as a hobby because they believed that Internet lacked information on IKEA. Their goal was to "enable access to information about IKEA products, to provide inspiration and ideas, to furnish assistance with planning, to make available instructions, to help with assembly, modification and installation questions and to provide answers to both common and uncommon queries about IKEA in general"[13].

[12] The IKEAFANS website. Available at www.IKEAFANS.com [Accessed 18 July 2011]
[13] The IKEAFANS website. Available at http://www.ikeafans.com/the-ikeafans-story.html [Accessed 18 July 2011]

Although most of the community content is accessible to everyone, some forum threads are only visible to registered members. Hence, visitors have the possibility of creating a registered profile. For designing their own profile, users can upload an image as an avatar to their account. Users can further add personal information such as location and instant messenger contact details. Moreover, they can also indicate a home improvement project they are currently working on like kitchen, bathroom and living room. Moreover, the IKEAFANS community allows its members to create a blog directly on the website. This function is commonly employed by its users in order to share their progress on a certain home improvement project via blog entries.

Users can interact with each other through private messages or they can start a discussion in the public forum, within which it is also possible for users to attach photos to their posts. Apart from the forum, photos are shared in the gallery section. Through a new photo tagging system, community members can tag or make notes on certain highlighted areas of a photo and discuss it in the forums. Moderators oversee the forums; they can edit/delete posts, move threads, and perform other administrative tasks. According to Susan, the co-founder of the IKEAFANS community, "becoming a moderator for a specific forum is usually rewarded to users who are particularly helpful and knowledgeable in the subject of the forum they are moderating."[14] Besides, community members are enabled to become friends with each other. Above and beyond, visitors can retrieve a wide array of information from the IKEAFANS community. This information ranges from an IKEA store directory over instruction manuals to specific articles provided by the IKEAFANS community or submitted by its members.

[14] The IKEAFANS website. Available at http://www.ikeafans.com/forums/articles/3976-moderators-who-these-people-what-do-they-do.html [Accessed 22 July 2011]

5. Methodology

This chapter seeks to depict the methodology of this master thesis. The first part of the chapter elaborates about the research philosophy and its ontological and epistemological considerations. In the following subchapter, the research approach is described. Afterwards, the focus turns towards the data collection method, issues concerning the sample and the different measurement scales used in the questionnaire. Moreover an overview of validity and reliability of the research is given. Finally, limitations of the study are formulated.

5.1. Research philosophy

Research philosophy fundamentally reflects upon how knowledge is developed and judged as being true for the purpose of research. This chapter addresses its two underlying concepts: Ontology and epistemology.

5.1.1. Ontology

Ontological considerations express the researcher's view of the nature of reality. It is concerned with the assumptions researchers have about the way the world operates. From an underlying positivistic perspective, as taken in this research, the world can be regarded as an observable social reality. This view assumes that aspects of the structure may differ from a brand community to another, but the essence of this social phenomenon shows certain similarities across different brands. Hence, brand communities are solely seen as objective entities and not as something created from the perceptions and consequent actions of social actors (Saunder, Lewis, & Thornhil, 2009).

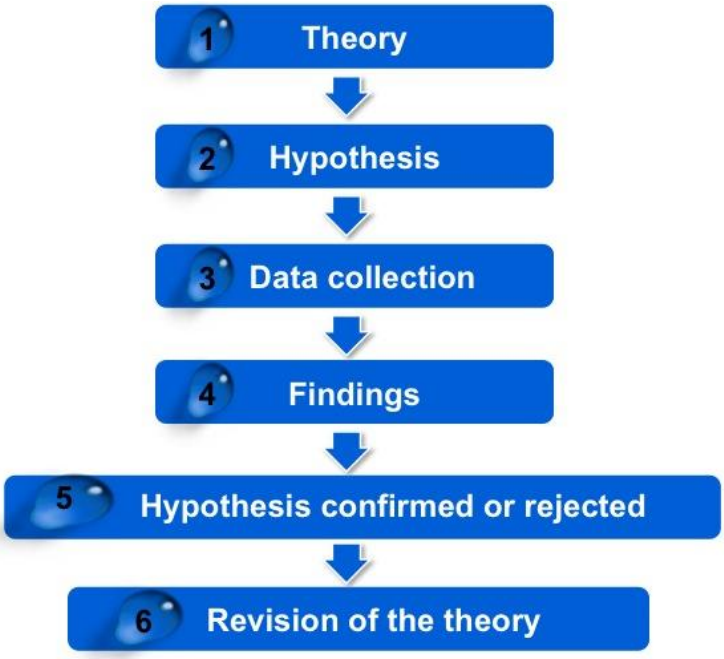
5.1.2. Epistemology

Epistemology "concerns what constitutes acceptable knowledge in a field of study" (Saunder, Lewis, & Thornhil, 2009, p.112). It thus addresses questions like: What is knowledge and how can it be acquired? How can we distinguish between truth and falsehood? Due to our positivistic view, we adopt the philosophical stance of the natural scientist on how we study the world. Based on existing theories and prior empirical research, hypotheses are developed. Either confirmed or refused, these hypotheses lead to the development of further knowledge. Thanks to statistical methods, the significance of hypotheses will be tested to ultimately answer the research questions. Hence, the knowledge created through this research is based on an observable and measurable truth.

5.2. Research approach

The literature suggests two contrary research approaches, namely, deduction and induction (Bell & Bryman, 2003; Saunder, Lewis, & Thornhil, 2009; Zikmund, 2000). Following the deductive approach, a theory and a hypothesis must be previously developed before being tested. More precisely, researchers deduce hypotheses from theoretical considerations in the appropriate domain of research. On the contrary, the inductive approach proposes to collect data first, while theory is developed as a result of the collected data (Saunder, Lewis, & Thornhil, 2009). In this research, a deductive approach is pursued (see figure 11). Building on the existing literature, relationships between variables are developed constructing a conceptual framework to understand the process of brand loyalty creation in brand communities.

Figure 11: The process of deduction (Bell & Bryman, 2003)



5.4. Data collection methods

This research uses questionnaires as the method for collecting primary data. To be more precise, self-administered online questionnaires were completed by the respondent in the two focal brand communities. The use of an online self-administered survey is especially relevant for our case since it is suited for a deductive research approach. It also enables us to collect

data in a highly economical way within a limited timeframe (Saunder, Lewis, & Thornhil, 2009). The other advantages are that participants are anonymous, and that they can answer whenever they feel like it.

Since the IKEA FAMILY hej community is a German-speaking brand community and hence its users might thus not be able to speak English, the questionnaire, originally in English, was translated into German. The questionnaires were created and set up using the survey tool TricTrac (www.trictrac.com). An overview and a description of the items can be found in appendix A and appendix B.

The questionnaires were posted directly on the websites of the online brand communities. For the IKEAFANS community, we posted some links of our survey in the community, on two different sections of the forums: the "news and announcement" and the "share" section. For the first one, the creator of the community put a special setting so that our post would always appear as one of the first threads on the page. Moreover, we created a blog page linked to our IKEFANS account that promoted our research. Additionally, the IKEAFANS creator (Susan Martin) tweeted about our research twice on her account (Susan @ikeafans on twitter) in order to promote it.

In the IKEA FAMILY hej Community, the forum post with the link to our questionnaire was prominently pinned on top of the forum overview by a moderator so that it was easily noticeable by all community members. Moreover, the hej team supported our request for community members to answer the questionnaire by commenting on the post to encourage them to participate and give our inquiry more credibility.

In order to ensure that the consumers understand our questionnaires we had a look at them together with the administrators of the online brand communities (websites). Since the administrator's feedback was solely positive, no changes needed to be made to the questionnaire.

5.5. Samples

First of all, it is essential to define our target population. A target population is "a specific group of people for which questions will be asked or observations made to obtain the desired information" (Hair, Bush, & Ortinau, 2009, p.52). Our target population for this research is defined as the whole population of the online community members. Once target population is defined, Hair et al. (2003) explain the necessity of selecting the method of data collection and sampling. As already mentioned, we will implement an online survey.

Probability sampling is defined as "a technique of drawing a sample in which each sampling unit has a known, nonzero probability of being included in the sample". Conversely, non-probability sampling is "the sampling process where the probability of selection of each sampling unit is unknown" (Hair, Bush, & Ortinau, 2009, p.350). Since the survey is posted online, one might argue that community members answering the questionnaire can have different characteristics than the ones that do not participate (e.g. their level of community commitment, brand attachment etc.). Hence, the probability of community members' participation in the questionnaire differs, regarding their characteristics. For instance, one might argue that a community member with high community commitment might be more likely to answer the questionnaire than a community member with low community commitment. Thus, the selection of each sampling unit is unknown. As a consequence, this research is using a non-probability sampling method. When describing web-survey types, Couper (2000), also distinguishes between probability and non-probability surveys. Among the non-probability surveys, there are entertainment surveys, self selected surveys and finally volunteer survey panels (Couper, 2000). Our research implements non-probability self-selected surveys which means that every community member can participate in it. However, in order to participate, the questionnaire has to be actively initiated by each website visitor individually (Alvarez & VanBeselaere, 2003, p.12).

5.6. Measurement scales

In the present research, two different scales are used, namely nominal and ordinal. A nominal scale is "a figurative labelling scheme in which the numbers serve only as labels or tags for identifying and classifying objects" (Malhotra & Birks, 2006, p.294). For example, respondents are categorized by gender using a nominal scale. Conversely, an ordinal scales allows respondents to specify if an object possesses more or less of a characteristic since an

ordinal scale is "a ranking scale in which numbers are assigned to objects to indicate the relative extent to which the object possess some characteristic" (Malhotra & Birks, 2006, p.295). The nominal scale applied in this research is a Likert scale which asks respondents to indicate the extent to which they agree or disagree with the statement about a given object (Hair, Bush, & Ortinau, 2009, p.370). The original five point format from RensisLikert (Hair, Bush, & Ortinau, 2009) is thus used in this research as the literature suggests that a Likert-type response scale length of five to eight answer alternatives is desirable (Lietz, 2010). Hence, a neutral option (neither agree nor disagree) is included since it increases validity and reliability of the response scale (Lietz, 2010). Generally speaking, a Likert scale has been chosen for this research due to its widespread use in empirical research, enabling us to adopt items used in previous research.

5.7. Validity and reliability

The concepts of reliability and validity represent two different views of the quality of the research (Sproull, 1995). The following two subchapters introduce and discuss the two concepts for our research.

5.7.1. Validity

Validity is defined as the "accuracy of the measurement" (Sproull, 1995, p.74) of a research. More precisely, it determines whether the research "truly measures that which was intended to measure or how truthful the research results are" (Joppe, 2000 in Golafshani, 2003).

Construct validity defines how well a test or experiment measures what it claims. It refers to whether the operational definition of a variable actually reflects the true theoretical meaning of a concept. Construct validity is assessed through convergent validity and discriminant validity. The latter assesses the "extent to which a given measure is not related to measures of other concepts with which no theoretical relationships are expected" (Rasmussen, Østergaard, & Beckmann, 2006, p.135). Discriminant validity is therefore measured in the chapter 6.1.4.1.2. Moreover, convergent validity is assessed in order to ensure that indicators actually represent their underlying unobservable construct (cf. chapter 6.1.4.1.2.)

Internal validity refers to an examination of the results, whether right sources and valid information have been collected or not (Bell & Bryman, 2003). Regarding our thesis, the question is whether or not the information collected is valid. Moreover, internal validity also

relates to the trustworthiness of the information given in the survey, by the respondents (Bell & Bryman, 2003). Thanks to the strength of the brand, and the devotion of the community members who answered the survey, we argue that the information given is highly trustworthy. However, the translation of the questionnaire from English to German for the IKEA FAMILY hej Community may have caused some changes in the wording of the questions. This is referred to as the instrumentation effect (Zikmund, 2000).

External validity is "the quality of being able to generalize beyond the data of the experiment to other subjects or other groups in the population under study" (Zikmund, 2000, p.78). Therefore, it includes population validity. It evaluates how well the sample population represents the entire population and whether the sampling method is satisfactory or not. As previously mentioned, our target population for this research is defined as the whole population of online community members. The questionnaire being self administrated, we do not have any kind of influence on the selection of the sample. However the sample is not representative of the whole population since one might argue that respondents have different characteristics to non-respondents (e.g. brand commitment, community commitment etc.). The results of the research are however dependent on the conditions of the research: the length of the research and its particular point in time, its online setting, and the difference of the respondents when comparing the two communities etc.

5.7.2. Reliability

Reliability refers to the consistency and stability of measurement over time and across respondents (Rasmussen, Østergaard, & Beckmann, 2006). Therefore the reliability of the study depends on both the data collection and the analysis of it. The reliability of this study is assessed in chapter 6.3.2.1. for the IKEA FAMILY hej Community and in chapter 6.4.2.1. for the IKEAFANS. These chapters assess the reliability measures for individual indicators of the latent variables and for each latent variable's indicators jointly (Composite reliability and Cronbach's alpha) (Martensen & Grønholdt, 2006).

5.8. Limitations

Regarding the comparison of the two communities there is a difference between the respondents of the samples from each community we are looking at (IKEAFANS and IKEA FAMILY hej Community). Therefore, the conclusions made for the comparison between

online company initiated brand community and online consumer initiated brand community can only be generalized to a certain extent.

5.9. Generalization

Pursuing a non-probability sampling method presumes that the research sample is randomly composed. Therefore, as mentioned, we cannot measure sampling errors and neither can we generalise the research findings to the whole online brand community population since our sample is not representative of the whole population (Hair, Bush, & Ortinau, 2009). Moreover, the limited amount of respondents in our questionnaire has an influence on our results and has to be kept in mind.

6. Data analysis

This section is divided in three subchapters. The first subchapter elaborates the statistical techniques employed in this research. First generation techniques are discussed before introducing second-generation techniques. Structural equation modeling, partial least square to be precise, is chosen as the statistical means to analyse the collected data, followed by a explanation of important statistical concepts, definitions, and model assessment. The second and third subchapters then apply the previously introduced statistical instruments for the IKEAFANS community and the IKEA FAMILY hej Community respectively.

6.1. Setting the scene

Based on the analysis of empirical data, various sets of statistical instruments can be used to identify and confirm theoretical hypotheses. So called first generation techniques like regression-based approaches or cluster analyses are said to be the core set of statistical instruments. Although widely used by researchers in different fields of research to identify or confirm theoretical hypotheses based on the analysis of empirical data, these techniques comprise certain limitations (Haenlein & Kaplan, 2004). First, they require a very simple model structure. Hence, given a more complex and realistic scenario they are not applicable. Secondly, first generation techniques follow the assumption that all variables are observable in nature, meaning that their "value can be obtained by means of a real-world sampling experiment"(McDonald, 1996, p.239). Since all variables used in this research can be classified as being unobservable (cf. chapter 6.1.2.), the first generation techniques do not appear to be the appropriate statistical instrument for analysing the empirical data of this research. Last but not least, first generation techniques conjecture that all variables are measured without error. As a result, it is assumed that measurement errors, be they random errors or systematic errors, simply do not occur. In reality, such an assumption is hard to believe. Indeed, as stated in Haenlein et al. (2004), questionnaires have two types of common measurement errors: random error, caused by the order of items in a questionnaire for instance (Heeler & Ray, 1972) and a systematic error, such as method variance (i.e., variance attributable to the measurement method rather than to the construct of interest) (Bagozzi, Yi, & Phillips, 1991). As an alternative to first generation techniques, more and more researchers utilize structural equation modeling in order to eliminate the above discussed limitations (Haenlein & Kaplan, 2004). In the following section of this chapter, structural equation

modeling is discussed in detail.

6.1.1. Structural equation modeling (SEM)

SEM is a second-generation technique utilizing empirical data to test theoretical assumptions uncovering the relationships among multiple independent and dependent constructs (Haenlein & Kaplan, 2004). Moreover, as opposed to regression-based approaches, which only analyse the link between independent and dependant constructs, SEM enables the analysis of simultaneous linkages among several dependent and independent constructs (Haenlein & Kaplan, 2004). A distinction between two different SEM approaches can be made, namely a covariance-based approach and a variance-based approach. The Covariance-based SEM is considered to be the most appropriate statistical method "in causal modeling situations where prior theory is strong and further testing and development is the goal" (Henseler, Ringle, & Sinkovics, 2009, p.296). Conversely, variance-based SEM, and partial least square (PLS) in particular as the most prominent representative, is the most suitable for testing and validating exploratory models in an early development stage (Henseler, Ringle, & Sinkovics, 2009). Although several relationships between variables in our framework appear to be sufficiently grounded on previous research, some are based only on little or none empirical evidence and thus, the model used here could be rather described as being in an early development stage. As a consequence, variance-based SEM is used to test and validate our theoretical assumptions. The specific variance-based approach used here is PLS. In the following section, the basics of PLS are explained and important terminology is clarified.

6.1.2. Partial Least Square (PLS)

The popularity of PLS path modeling among researchers has largely increased in the new millennium. The reasoning behind using the PLS technique can be found in some of its unique advantages. As already mentioned before, PLS analysis is mostly used because of its suitability in an early stage of theoretical development and prediction-oriented research (Henseler, Ringle, & Sinkovics, 2009). Its advantages are described in more detail in chapter 6.1.3.

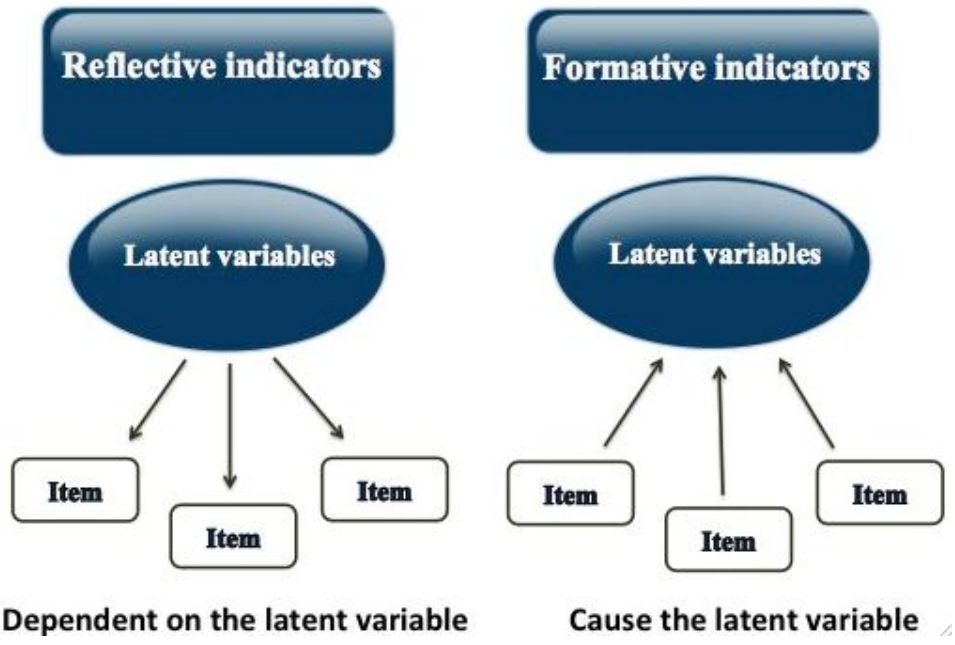
In order to test theoretical assumptions, PLS basically follows three consecutive steps. First, through the estimation of weight relations, indicators are linked to their respective unobservable variables. Building on these estimations, at the following step the weighted average of each and every unobservable variable is used in order to calculate case values.

Finally, parameters for the structural relations are determined through regression analysis incorporating the previously calculated case values (Haenlein & Kaplan, 2004).

Two sets of linear equations, namely the inner model and the outer model, are used to define PLS path models. The inner model, also referred to as the structural part, specifies relationships between latent variables. Thus, the inner model helps to understand and explain hypothesized correlations between the different constructs. On the contrary, the outer model, also referred to as the measurement component, determines relationships between latent variables and its manifest variables (Haenlein & Kaplan, 2004; Henseler, Ringle, & Sinkovics, 2009). Hence, the outer model is responsible for specifying the relationships between constructs and their items.

Variables and hence constructs can either be observable or unobservable. All the variables of this research can be characterized as being unobservable. Hence, as opposed to observable variables (also called manifest variables) which can be measured directly, unobservable variables cannot be measured directly and indicators need to be construed as representatives of all the facets of the unobservable variables (Haenlein & Kaplan, 2004). The literature further distinguishes between reflective and formative indicators. Reflective indicators are dependent on the unobservable variables and thus explain the construct. On the contrary, formative indicators influence and cause changes in the unobservable variables (Haenlein & Kaplan, 2004) (see Figure 12).

Figure 12: Reflective versus formative indicators (Haenlein & Kaplan, 2004)



In this research, only reflective indicators (items) are part of our model. For example, the item "I really love the IKEA brand" is a reflective indicator for brand attachment.

6.1.3. Advantages of PLS path modeling

The use of PLS path modeling has several advantages. Firstly, this method avoids problems that can occur with small samples when using other methods. Hence, the advantage of using the PLS procedure stems from "its ability to model latent constructs under conditions of non-normality and small to medium sample sizes" (Chin, Marcolin, & Newsted, 2003, p.25). Secondly, it can be applied to very complex models that involve many observable and unobservable variables. Thirdly, it avoids parameter estimation biases, common in regression analysis (Henseler, Ringle, & Sinkovics, 2009)(Henseler, Ringle, & Sinkovics, 2009; Hertz Larsen & Greenfort, 2009)). Finally, this method is adequate for causal modeling applications whose purpose is prediction and/or theory building (Henseler, Ringle, & Sinkovics, 2009).

6.1.4. Model assessment

Since there is no global goodness-of-fit criterion, the literature proposes a systematic assessment of the outer and inner model. In order to evaluate the outer model, measurement validity and reliability have to be assessed. After the validity and reliability of the measurement model are ensured, and only then, it makes sense to assess the inner model (Henseler, Ringle, & Sinkovics, 2009).

6.1.4.1. Assessment of the outer model

It is suggested to assess reflective measurement models with regard to their reliability and validity (Henseler, Ringle, & Sinkovics, 2009). As a consequence, the following two sections discuss reliability and validity measures that show relevancy to this research. More precisely, composite reliability (for each latent variable's indicators jointly) and individual item reliability are introduced as measures for reliability, whereas convergent validity and disciminant validity are to be considered as measures for validity.

6.1.4.1.1.Reliability

This chapter will present reliability measures for "the individual indicators (item reliability) and for each latent variable's indicators jointly" (Composite reliability and Cronbach's alpha) (Martensen & Grønholdt, 2006).

6.1.4.1.1.1. Individual item reliability

Since reliability of indicators varies it is also suggested to test their individual item reliability. Researchers agree that at least 50% of an unobservable variable should be explained by its indicators and thus the absolute standardized outer loadings should at least be higher than 0.7. Individual reliability enables us to assess which items to remove from our research. Hence, items with loadings from 0.5 and below should not be taken into consideration and will be removed from the model (Hulland, 1999).

6.1.4.1.1.2. Composite reliability and Cronbach's alpha

After having looked at individual items reliability, we will now focus on reliability tests assuring that items posited to measure a construct are sufficiently related to be reliable (i.e., low on measurement error). The general practice of assessing reflective measurement models suggests checking internal consistency reliability (Henseler, Ringle, & Sinkovics, 2009). Traditionally, Cronbach's alpha is used to provide an estimate for the reliability as a criterion for internal consistency. However, Cronbach's alpha, which assumes equal reliability for all indicators, "tends to provide a severe underestimation of the internal consistency reliability of latent variables in PLS path models" (Henseler, Ringle, & Sinkovics, 2009, p.299). Alternatively, composite reliability is proposed as another method to measure internal consistency reliability. Composite reliability is more relevant than Cronbach's alpha since it takes indicators with different loadings and therefore considers their unequal reliability. Thereore, we will use both methods in order to complete each other. Both coefficients have the same reliability threshold. A lack of reliability is normally attested at values below 0.6, whereas values above 0.7 in early research development stages and 0.8 or 0.9 in more advanced scenarios are satisfactory to show that internal consistency exists (Henseler, Ringle, & Sinkovics, 2009). Moreover, 0.7 defined as being a "modest" reliability (Nunally1978; Hulland 1999). (Henseler, Ringle, & Sinkovics, 2009)

6.1.4.1.2. Validity

For assessing the validity of the PLS path model, both convergent validity and discriminant validity are measured. Convergent validity ensures that indicators actually represent their underlying unobservable construct. It can be tested using average variance extracted (AVE) as proposed by Fornell & Larcker (1981). AVE is defined as "the average variance shared between a construct and its measures" (Hulland, 1999, p.200), the variance being a measure of the average distance between each of the set of data points and their mean value. The average variance extracted (AVE) indicates what percentage of the variance of the construct

is explained by its items. It measures the shared or common variance in a latent variable. The amount of variance that is captured by the latent variable is compared to the amount of variance due to its measurement error (Dillon & Goldstein, 1984). Consequently AVE to a point measures the error-free variance of a set of items.

If a latent variable is able to explain at least half of an indicator's variance on average, convergent validity is considered to be sufficient. Thus, AVE scores above 0.5 are required. Discriminant validity is a complementary concept in which two conceptually different variables should be sufficiently different, meaning that "the joint set of their indicators should not be unidimensional" (Henseler, Ringle, & Sinkovics, 2009, p.299). To assess the complimentary concept of discriminant validity, the literature postulates two different concepts: Fornell-Larcker criterion and cross-loadings. The Fornell-Larcker criterion relies on variance to assess discrimant validity. Discriminant validity is considered to be adequate enough if a latent variable and its respective indicators share more variance than the latent variable does with any other latent variable. Thus, "the AVE of each latent variable should be greater than the latent variable's highest squared correlation with any other latent variable" (Henseler, Ringle, & Sinkovics, 2009, p.299-300). Accordingly, the Fornell-Larcker criterion helps to assess discriminant validity on the construct level. On the contrary, cross loadings evaluate discriminant validity on the indicator level by comparing indicators' loadings with cross-loadings. This comparison expects loadings of each and every indicator to be greater than all of its cross loadings (Henseler, Ringle, & Sinkovics, 2009).

6.1.4.2. Assessment of the inner model

As mentioned before, the inner model, also called the structural model, describes relations between latent variables. In the inner model, we distinguish between endogenous and exogenous variables. Exogenous variables are variables that are not explained by the model, whereas endogenous variables are explained by the relationships contained in the model (Haenlein & Kaplan, 2004). In our model, community identification, community satisfaction, and the degree of influence are exogenous variables, whereas the rest of our variables are endogenous.

For assessing the inner model, the coefficient of determination (R^2) is said to be the most essential. R^2 is a measure of the extent to which the dependent variable is explained by the model (Sykes, 1993). It has been reported that substantial R^2 values lie at 0.67, whereas a R^2 value of 0.33 is considered moderate. If the value is only 0.19 the coefficient of determination

is described as weak (Chin, 1998). Such a low result indicates that the model is incapable of explaining the endogenous latent variables. The literature suggests that for endogenous variables with at least three exogenous variables as a precursor (as is the case for community commitment and its three antecedents, community identification, community satisfaction, and degree of influence), R^2 values should at least be measured at a substantial level (Henseler, Ringle, & Sinkovics, 2009).

6.1.5. Bootstrapping

As part of the assessment of the structural model (inner model), we are using a method of bootstrapping in order to measure the accuracy of the sample estimates. In order to do so, this technique is based on resampling, with replacement of the original sample. The bootstrap is chosen from other methods because it is an easy method for estimating not only the variance of a point estimator (e.g. the jackknife) but also its whole distribution. The bootstrapping procedure requires all the samples to have the same number of units as the original sample. The number of resamples per default is 100 but a higher number (such as 500) may lead to more reasonable standard error estimates (Tenenhaus, 1998). This technique also estimates inner model path coefficients i.e. the "mean value and standard error of path coefficients" (Henseler, Ringle, & Sinkovics, 2009, p.306). The mean value is assessed through a "t-test" that determines whether or not the means of two groups are statistically different from each other. The path coefficients are used in order to evaluate the strength of the linkage between the constructs of the model.

6.1.6. Assessing the moderating effect

A moderator "affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable" (Chin, Marcolin, & Newsted, 2003, p.21). The present research is interested in understanding the influence of participation (moderator) on the direct relationship between the three exogenous variables (community identification, community satisfaction, and degree of influence) and the endogenous variable (community commitment). Two common approaches are described in the literature to estimate moderation effects with regression-like techniques, namely product term approach and group comparison approach (Henseler & Fassot, 2010). The product term approach uses an additional construct called interaction term (product of the exogenous and moderator variable) within the structural model to determine the moderation effect. However, the interaction term is calculated through a type of regression formula, which requires the use of metric data (Henseler & Fassot, 2010). First and foremost, the moderator in this research can

be classified as categorical (active and passive participation) in its first dimension. Moreover, on its second dimension (frequency), the moderator variable is not measured on a continuous scale. Thus, the product term approach is not applicable.

Alternatively, the group comparison approach can be used for identifying a moderating effect. For this purpose, observations are grouped (see chapter 6.1.6.1.). Afterwards, an estimation of the path model is undertaken separately for each group. The moderating effect can then be identified through a comparison of model parameters for each data group (Henseler & Fassot, 2010).

6.1.6.1. Group formation

Groups are formed according to the two dimensions of participation: active versus passive participation and frequency. However, grouping respondents according to their active and passive participation is problematic since these two options are not mutually exclusive. Just because community members passively participate does not necessarily mean that they do not actively participate. Consequently, if respondents are grouped only according to their passive participation, it is impossible to measure a moderating effect solely for this observation. Hence, in order to categorize respondents as passive participants, active participation needs to be considered to ensure that the moderating effect can be ascribed to the respective observation. On the contrary, in most of the cases active participation requires passive participation in the first place. For instance, community members need to browse the community first in order to contribute to a forum post. In a sense, one might argue that active participation somehow includes passive participation.

As a consequence, respondents are grouped according to their active participation first. For this purpose a median-split is undertaken (Henseler & Fassot, 2010). Thus, respondents are divided into group I and group II. Group I represents respondents whose moderator score is above the median for active participation (high frequency of active participation), whereas group II comprises respondents whose moderator score is below the median for active participation (low frequency of active participation). Respondents having a level of active participation that is equal to the median cannot be allocated into either of the two groups and have to be disregarded from the assessment.

In a second step, passive participants need to be identified. Given the above discussion, passive participation will only be considered for respondents who have a low frequency of active participation (group II). Thus, a median-split for the observation of passive participation is performed for respondents of group II. As a result, group III consists of respondents whose moderator score is above the median for passive participation (high frequency of passive participation), whereas group IV comprises respondents whose moderator score is below the median for passive participation (low frequency of passive participation).

6.3. IKEA FAMILY hej Community Data analysis

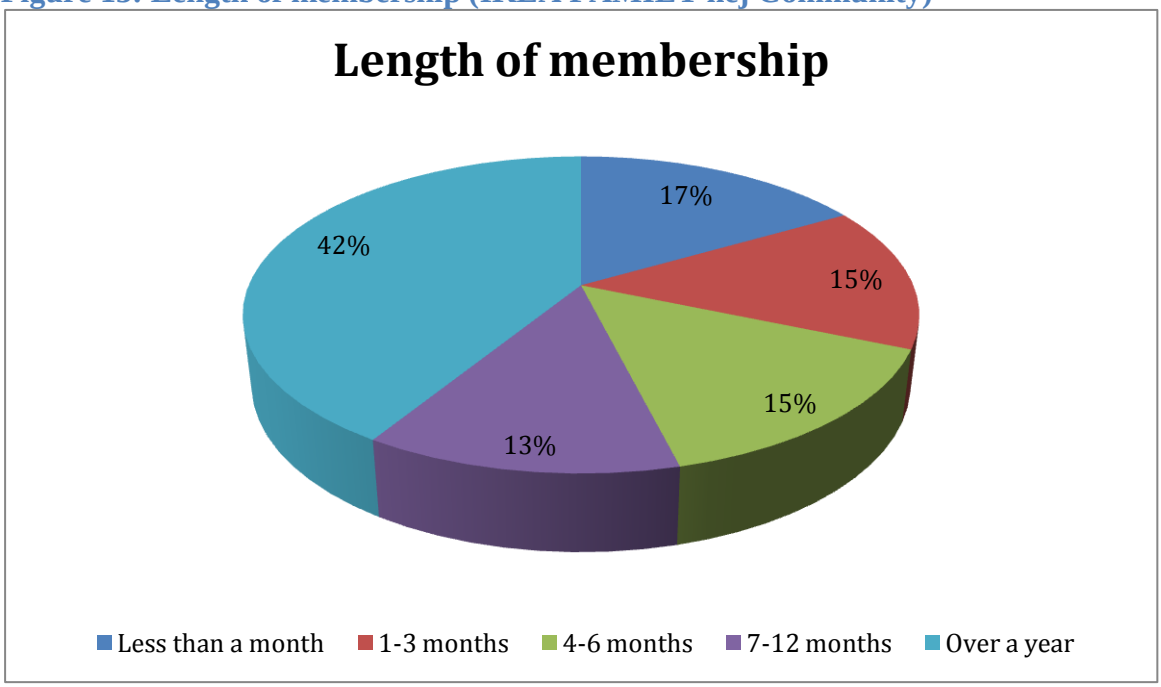
The questionnaire aimed at gathering data from the IKEA FAMILY hej Community was accessible to community members for four weeks in total. During this data collection phase, 107 people used our link to access the questionnaire, but only 48 (approximately 45%) clicked their way through the questionnaire until the end. As a consequence, the sample size for the following data analysis of the IKEA FAMILY hej Community is 48.

6.3.1. Sample description

This subchapter applies descriptive statistics to describe the sample and the characteristics of the respondents. Statistics about the total community population are unknown. As already mentioned, the sample size is 48. People participating in the questionnaire are predominantly women. Out of the 48 respondents, 19% are men (9) and 81% are woman (39). In terms of age, the respondents are 33.7 years old on average. The youngest respondent is 11 years old, whereas the oldest respondent is 66 years old.

Figure 13 provides an overview of the length of membership in the IKEA FAMILY hej Community members who answered our survey. Most of the respondents (42%) are very experienced community members and joined the IKEA FAMILY hej Community already over a year ago. The length of membership of the other respondents is distributed equally between the four remaining categories: 1-3 months 15%, 4-6 months 15%, 7-12 months 13%, and less than a month 17%.

Figure 13: Length of membership (IKEA FAMILY hej Community)



6.3.2. Assessment of the outer model

In order to assess the outer model we previously mentioned that we needed to measure both its reliability and validity. In a first section we will be looking at the reliability of the model before moving on to its validity.

6.3.2.1. Reliability

In this part, we will look at both, reliability measures for the individual indicators (item reliability) and jointly for the indicators of each latent variable (Composite reliability and Cronbach's alpha).

6.3.2.1.1. Cronbach's alpha & Composite reliability

The first step in assessing reliability is to estimate the model's internal consistency with Cronbach's alpha. A lack of reliability is normally attested with Cronbach's alpha values below 0.6. As shown in table 3, all the values are higher than 0.74, which is the value of "degree of influence". Moreover, values above 0.7 are satisfactory to show that internal consistency exists.

Table 3: Cronbach's alpha for the IKEA FAMILY hej Community

	Cronbachs Alpha
Brand attachment	0,942122
Community Identification	0,821396
Community Satisfaction	0,865077
Community commitment	0,910879
Degree of Influence	0,740626
PSBC	0,938001
Repurchase intention	0,939264
WOM	0,885575

The other method proposed in order to assess the reliability of the model is composite reliability. It is more reliable than Cronbach's Alpha as it takes into account indicators with different loadings therefore their unequal reliability.

Table 4: Composite reliability for the IKEA FAMILY hej Community

	Composite Reliability
Brand attachment	0,955830
Community Identification	0,881461
Community Satisfaction	0,917126
Community commitment	0,931122
Degree of Influence	0,852149
PSBC	0,951092
Repurchase intention	0,970458
WOM	0,928745

The composite reliability method assesses how well all items in a block relate to their construct. The threshold for composite reliability is 0.7. Table 4 shows that all measurements exceed 0.85, which is the value of composite reliability for degree of influence. Moreover, most of the results exceed 0.9, which leads us to conclude that all items in each latent variable form a single and strongly cohesive construct.

Therefore, the previous measurements attest from the reliability of our model, i.e. the items posited to measure a construct are sufficiently related to be reliable (low on measurement error).

6.3.2.1.2. Individual item reliability

As well as measuring the reliability of each latent variable's indicators jointly, it is deemed necessary to test individual item reliability. In order to do so, we look at the "factor loadings of each of the items with their respective latent variable" (Martensen & Grønholdt, 2006, p.102). To be considered reliable, outer loadings should at least be higher than 0.7. As can be seen in the appendix C, all outer loadings are higher than 0.7 for their latent variables. Therefore all items have been maintained for our research and we can say that the items of our model are all relevant for the construct they represent. Moreover, the highest loadings were attained by the two items of the latent variable of repurchase intention (0. 968 and 0.974), which shows that these items strongly represent the construct.

6.3.2.2. Validity

As mentioned before, convergent and discriminant validity are measures to assess the validity of a PLS path model. Convergent validity is assessed using AVE scores. The AVE scores for the IKEA FAMILY hej Community sample are displayed in table 5.

Table 5: AVE for the IKEA FAMILY hej Community

	AVE
Brand attachment	0,812422
Community Identification	0,651744
Community Satisfaction	0,786794
Community commitment	0,693950
Degree of Influence	0,659863
PSBC	0,764750
Repurchase intention	0,942613
WOM	0,813258

The lowest AVE score, namely 0.6517, is found for community identification; the highest, 0.9426 is attained by repurchase intention. Thus, the latent variable of community commitment is able to explain more than 65% of its indicator's variance on average, whereas the repurchase intention variable is even able to explain more than 94% of its indicator's variance on average. An AVE score of at least 0.5 indicates sufficient convergent validity. As shown in table 5, the AVE scores for all eight latent variables lie above this threshold. Consequently, it can be said that convergent validity is sufficient for all eight constructs.

Discriminant validity on the construct level is assessed with the Fornell-Larcker criterion (AVE of each latent variable should be higher than the squared correlations with all other latent variables). Table 6 shows the AVE scores of each latent variable (numbers in bold) and the squared correlations with all other latent variables. In order to ensure discriminant validity, the AVE score of each latent variable should be higher than the squared correlations with all other latent variables. Since this condition is fulfilled (see table 6), it can be concluded that each latent variable shares more variance with its own block of indicators than it shares with any other latent variable block of indicators.

Table 6: Fornell-Larcker criterion for the IKEA FAMILY hej Community

	Brand attachment	Community identification	Community satisfaction	Community commitment	Degree of influence	PSBC	Repurchase intent	WOM
Brand attachment	**0,81**							
Community identification	0,28	**0,65**						
Community satisfaction	0,18	0,46	**0,79**					
Community commitment	0,46	0,55	0,43	**0,69**				
Degree of influence	0,23	0,19	0,23	0,33	**0,66**			
PSBC	0,19	0,36	0,19	0,42	0,28	**0,77**		
Repurchase intention	0,33	0,05	0,11	0,12	0,07	0,09	**0,94**	
WOM	0,59	0,19	0,20	0,25	0,13	0,15	0,33	**0,81**

(Squared latent variable correlations = normal numbers / AVE = bold numbers)

Besides, discriminant validity on the indicator level is assessed through a comparison of outer loadings and cross loadings (see appendix C). As loadings of each and every indicator and its respective latent variable are higher than cross-loadings of these indicators with any other latent variable, discriminant validity is also ensured on the indicator level. In sum, both criterions for discriminant validity are fulfilled.

6.3.3. Assessment of the inner model

Having conducted outer model estimations, this chapter now assesses the inner model (structural model). As mentioned before, the coefficient of determination (R^2) is said to be the most essential criterion for estimating the structural model. Table 7 illustrates an overview of R^2 values for the latent variables of the model. Since the coefficient of determination R^2 measures to what extent a latent variable is explained by the model, it can only be calculated for endogenous variables and not exogenous variables. As a consequence, table 7 does not show R^2 values for community identification, community satisfaction, and degree of influence, as they are exogenous variables.

Table 7: The coefficient of determination (R^2) for the IKEA FAMILY hej Community

	R Square
Brand attachment	0,436643
Community Identification	
Community Satisfaction	
Community commitment	0,648612
Degree of Influence	
PSBC	0,358767
Repurchase intention	0,328168
WOM	0,587963

Community commitment is the only endogenous variable with three exogenous variables as precursors. The literature suggests that endogenous variables with a set of three or more antecedents should be measured at a substantial level (0.67 as proposed by Chin (1998)). The coefficient of determination for community commitment has a value of 0.6486 and therefore does not lie at a substantial level. Thus, the model is incapable of fully explaining the community commitment variable (Henseler, Ringle, & Sinkovics, 2009). It has further been suggested that "if certain inner path model structures explain an endogenous latent variable by only a few (e.g., one or two) exogenous latent variables, ''moderate'' R^2 may be acceptable" (Henseler, Ringle, & Sinkovics, 2009, p.303). PSBC is the only other endogenous latent variable in the model that is explained by solely one exogenous latent variable (community identification). The R^2 value for PSBC was 0.3587. Consequently, R^2 for PSBC represents a value at a moderate level (0.33 as proposed by Chin (1998) and is therefore considered as acceptable. The R^2 value for brand attachment, 0.4366, can therefore also be regarded to be at a moderate level.

Regarding the other latent variable, a much better score for the coefficient of determination is attained by WOM with a value of 0.5879. It lies between scores of a moderate and substantial level. Thus, the result is satisfactory. Finally, repurchase intention with a R^2 value of 0.3282 is the only endogenous latent variable that fails to reach at least the moderate level (0.33 as proposed by Chin (1998)). However, Chin (1998) labelled R^2 values to be at substantial,

moderate, and weak levels only according to three measures. He did not specify thresholds or intervals of these levels. Therefore we can argue that the R^2 value of repurchase intention, being 0.328168, is considered to represent a moderate level since it so close to the "moderate" value of 0.33 specified by Chin (1998).

6.3.3.1. Hypotheses testing using bootstrapping

The bootstrapping analysis is used "to determine the confidence intervals of the path coefficients and statistical inference" (Henseler, Ringle, & Sinkovics, 2009, p.304). The bootstrapping results allow the statistical testing of hypotheses and are therefore used in order to confirm or reject the hypotheses of this research. In order to apply the bootstrapping technique, the researcher has to choose a number of bootstrap samples, which for this research, was set at 500. The bootstrapping procedure delivers a mean value and standard error for each path model coefficient which allows a student's t-test to be performed (Henseler, Ringle, & Sinkovics, 2009) which in turn enables conclusions to be drawn concerning the significance of path model relationships. Table 8 displays the structural path model with its respective t-values for each and every path.

Table 8: Path coefficients and t-values for the IKEA FAMILY hej Community

	Hypotheses	Path coefficients	t-values
Community identification => PSBC	H9	0,599	4,918
Community identification => Community commitment	H1	0,500	3,153
Community satisfaction => Community commitment	H2	0,191	1,058
Degree of influence => Community commitment	H3	0,264	2,569
PSBC = > Brand attachment	H10	0,329	2,214
Community commitment =Brand attachment	H11	0,400	2,760
Brand attachment => Repurchase intention	H12	0,573	7,428
Brand attachment => Word of mouth	H13	0,767	13,094

A confidence interval is chosen at a significance level of 0.05. The t-value at significance level of 0.05 should be equal to or above 2.012. As a consequence, hypotheses H1, H3, H9,

H10, H11, H12, H13 are confirmed to be significant, whereas hypothesis H2 has to be rejected since the t-value for this path lies under the threshold.

6.3.4. Assessment of the moderating effect

In order to assess the moderating effect of participation, a group comparison approach is applied. As a consequence, the median of active participation is calculated. All respondents indicating a level of active participation above the median are grouped into active participants with a high frequency of use (group I). On the contrary, all respondents with a level of active participation below the median are put into the group of active participants with a low frequency of use (group II). Finally, those respondents with a level of active participation equal to the median cannot be allocated into one of the two groups and have to be disregarded from the assessment.

The problem arising from applying the group comparison approach is that the already rather small sample is divided into even smaller sub-samples. However, in order to ensure the validity and reliability of the model for the above described sub samples (group I and group II), the outer and inner model are assessed and the results are briefly described in the following. At last, a possible moderating effect will be discussed.

6.3.4.1. Model assessment for group I and group II

As mentioned before, in a first step the outer model has to be assessed regarding its reliability and validity. A model's internal consistency is normally attested to latent variables with a Cronbach's alpha value below 0.6 (values above 0.7 are considered satisfactory). In both groups, Cronbach's alpha of all latent variables, except degree of influence in group II, was found above the satisfactory value of 0.7 (see appendix D and appendix E). Degree of influence for group II shows a Cronbach's alpha of 0.62825, and thus fails to reach a satisfactory level. Nevertheless, the value lies above 0.6 and therefore internal consistency can also be attested to exist for degree of influence. However, whereas composite reliability (the alternative criterion to assess internal consistency) is found for all latent variables above the 0.7 threshold for group I, degree of influence for group II only reaches a value of 0.6579 (see appendix F and appendix G). Consequently, the model for group I is highly reliable and the items posited to measure a construct are sufficiently related to be reliable (low on measurement error). On the contrary, the model for the group II is not reliable enough. The items of degree of influence are not sufficiently related to the construct in order to measure it.

This might be due to the small amount of respondents and therefore of the difficulty of analysing data with a small sample.

Moreover, further problems of reliability arise on the individual item level; in order for these to be reliable, outer loadings of at least 0.7 are required. For group I, outer loadings of various items of the latent variables, degree of influence, PSBC, community identification do not exceed the 0.7 threshold and are therefore not reliable (see appendix H). Similar results are observed for group II. Several items for the latent variables of community commitment, degree of influence, and community identification are not reliable because their outer loadings are below the 0.7 threshold (see appendix I).

In order to assess the model's validity, convergent validity and discriminate validity have to be considered. As previously mentioned, an AVE score of at least 0.5 indicates sufficient convergent validity. For group I, all AVE scores are above 0.5 (see appendix J). However, since degree of influence in group II reaches only an AVE score of 0.4791, there is a lack of convergent validity for this model (see appendix K).

Discriminant validity on the construct level is assessed through the Fornell-Larcker criterion (AVE of each latent variable should be higher than the squared correlations with all other latent variables). The Fornell Larcker criterion for group I is not fulfilled as the squared correlation of community commitment and community identification (0.595) is higher than the AVE score for community identification (0.592) (see appendix L). Hence, the model for group I lacks discriminant validity on the construct level. On the contrary, the Fornell-Larcker criterion is fulfilled for all latent variables for the model of group II (see appendix M). However, discriminant validity on the indicator level is ensured for the model of group I, since loadings of each and every indicator and its respective latent variable are higher than cross-loadings of these indicators with any other latent variable (see appendix H). However, as DOI1 has a higher cross loading with PSBC than with its respective indicator degree of influence, discriminant validity is not given for the model of group II (see appendix I).

6.3.4.2. Reflection

To summarize, the assessment of the inner model for group I and group II shows too many flaws in terms of reliability and validity. Hence, the inner model has to be rejected and it does not make sense to continue assessing the outer model. Moreover, since the models of group I and group II show already so many flaws concerning their validity and reliability, an estimation of the model for group III and group IV is not expected to yield better results. We

believe these flaws to occur because of the small sample sizes in our research. As a consequence, we cannot draw conclusions on the hypothesis H4a, H4b, H5, H6a, H6b, H7, H8a, and H8b.

6.4. IKEAFANS data analysis

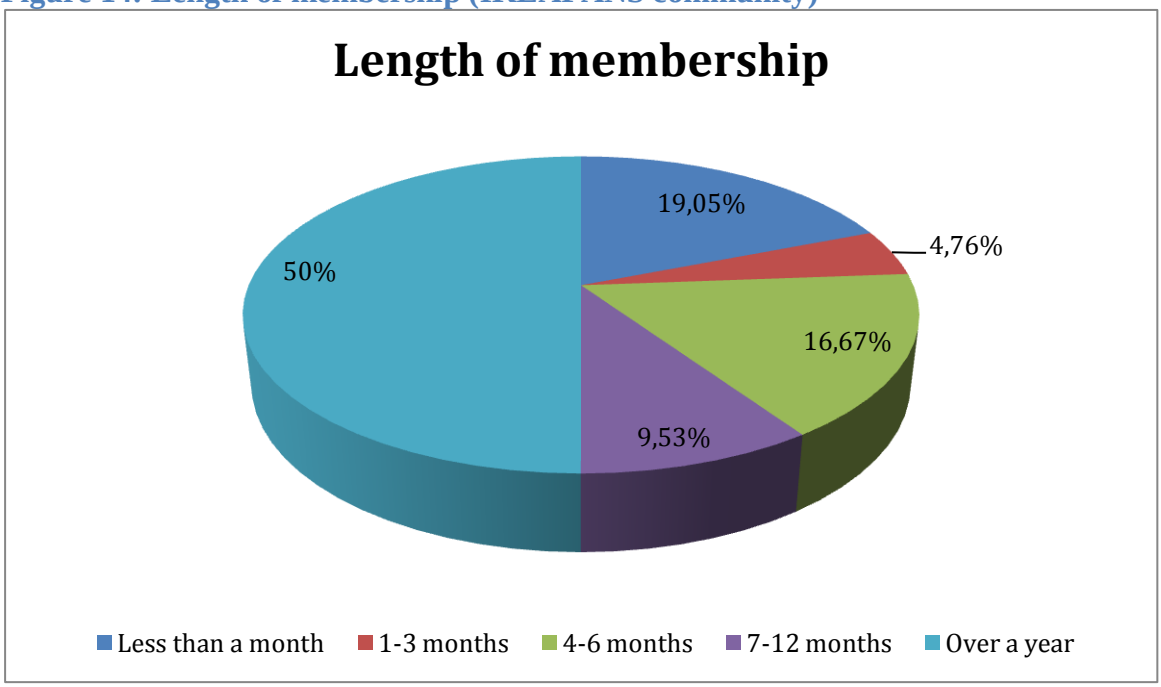
Similarly to the questionnaire for the IKEA FAMILY hej Community, the questionnaire for the IKEAFANS community was also accessible to community members for four weeks in total. During this data collection phase 100 people used our link to access the questionnaire, but only 42% clicked their way through the questionnaire until the end. As a consequence, the sample size for the following data analysis of the IKEAFANS community is 42.

6.4.1. Sample description

Descriptive statistics are applied in this subchapter to describe the sample of the IKEAFANS community. Out of the 42 respondents about a quarter of them are male (26,2%), whereas the other three quarters are female (73,8%). On average, the respondents are 41 years old. The oldest respondent is 62 years old, whereas the youngest respondent is 24 years old.

An overview of the length of membership of respondents from the IKEAFANS community is depicted in figure 14. Half of the respondents have already been a member of the IKEAFANS community for over a year. On the contrary, the second largest group can be identified as respondents who have been members of the community for less than a month (19.05%). The smallest group of respondents is represented by members whose length of membership is between 1 and 3 months (4.76%). Besides, 16.67% of the respondents are members since 4-6 months, whereas 9.53% of respondents have a length of membership from 7 to 12 months.

Figure 14: Length of membership (IKEAFANS community)



6.4.2. Assessment of the outer model

In order to assess the outer model, reliability and validity have to be checked. The assessment of the other model of the IKEAFANS community begins by assessing the reliability of the model. In the second part of this chapter, the analysis will address measures to analyse model's validity.

6.4.2.1. Reliability

Reliability will be assessed for each latent variable jointly through Cronbach's alpha and composite reliability in chapter 6.4.2.1.1. before individual item reliability is checked in chapter 6.4.2.1.1.

6.4.2.1.1. Cronbach's alpha & composite reliability

As already mentioned before, internal consistency reliability can either be checked through Cronbach's alpha or alternatively through composite reliability. For both measures the same threshold is applicable. In early research development stages a value above 0.7 (0.8 or 09. in more advanced scenarios) is considered satisfactory. As depicted in table 9, all values of Cronbach's alpha for each latent variable are above the 0.7 threshols. Degree of influence shows the smallest value for Cronbach's alpa (0.7625), whereas all values for the other latent variables are much higher than 0.8.

Table 9: Cronbach's alpha for the IKEAFANS community

	Cronbachs Alpha
Brand attachment	0,956882
Community Commitment	0,948344
Community Identification	0,898038
Community Satisfaction	0,856465
Degree of influence	0,762503
PSBC	0,967536
Repurchase intention	0,931806
Word of mouth	0,946662

Composite reliability for the IKEAFANS community is shown in table 10. The smallest value for composite reliability was found for degree of influence (0.8562). Each and every other latent variable shows composite reliability values above 0.9. As a consequence, it can be concluded that the items of each latent variable form a single and strongly cohesive construct.

Table 10: Composite reliability for the IKEAFANS community

	Composite Reliability
Brand attachment	0,966694
Community Commitment	0,958755
Community Identification	0,929296
Community Satisfaction	0,908764
Degree of influence	0,856284
PSBC	0,973701
Repurchase intention	0,965932
Word of mouth	0,965663

6.4.2.1.2. Individual item reliability

It has been suggested that standardized outer loadings of all indicators should be above 0.7. For the IKEAFANS community, all standardized outer loadings of all indicators are above 0.7 (see appendix N). The indicator DOI2 (degree of influence) has the lowest standardized outer loading (0.7160), whereas the highest standardized outer loading (0.9785) was measured for RI1 (repurchase intention).

6.4.2.2. Validity

Convergent validity and discriminant validity are the measures to evaluate the validity of PLS path models. Convergent validity is attested to latent variables if the AVE score is higher than 0.5. Table 11 depicts AVE scores for the IKEAFANS community for all latent variables.

Table 11: AVE for the IKEFANS community

	AVE
Brand attachment	0,853076
Community Commitment	0,794930
Community Identification	0,767011
Community Satisfaction	0,768790
Degree of influence	0,666722
PSBC	0,860589
Repurchase intention	0,934119
Word of mouth	0,903620

As AVE scores for all eight latent variables lie above 0.5, it can be said that sufficient convergent validity is given. The lowest AVE score of 0.6667 was measured for degree of influence indicating that over 66% of the indicator's variance on average for this construct is explained by the model. On the contrary, repurchase intention has the highest AVE score of 0.9341 indicating that over 93% of the indicator's variance on average for this construct is explained.

The Fornell-Larcker criterion helps to assess discriminant validity on the construct level. The Fornell-Larcker criterion is fulfilled when AVE scores of each latent variable are higher than

the squared correlations with all other latent variables. Table 12 depicts the AVE scores (in bold) of each latent variable and the squared correlations with all other latent variables. As AVE scores of each latent variable are higher than the squared correlations with all other latent variables, discriminant validity on the construct level is given for the model.

Table 12: Fornell-Larcker criterion for the IKEAFANS community

	Brand attachment	Community identification	Community satisfaction	Community commitment	Degree of influence	PSBC	Repurchase intent	WOM
Brand attachment	**0,85**							
Community identification	0,48	**0,77**						
Community satisfaction	0,27	0,38	**0,77**					
Community commitment	0,49	0,67	0,48	**0,79**				
Degree of influence	0,29	0,43	0,63	0,54	**0,67**			
PSBC	0,72	0,54	0,28	0,43	0,35	**0,86**		
Repurchase intention	0,30	0,22	0,17	0,27	0,13	0,20	**0,93**	
WOM	0,62	0,50	0,25	0,48	0,24	0,54	0,56	**0,90**

(Squared latent variable correlations = normal numbers / AVE = bold numbers)

Moreover, also discriminant validity on the indicator level is given since outer loadings of each and every indicator and its respective latent variable are higher than cross-loadings of these indicators with any other latent variable (see appendix N).

6.4.3. Assessment of the inner model

After looking at the outer model, this part assesses the inner model. In order to do so, we will look at the coefficient of determination (R^2). Table 13 illustrates an overview of R^2 values for the latent variable of the model. As previously mentioned, table 13 does not show R^2 values for community identification, community satisfaction, and degree of influence, as they are exogenous variables.

Table 13: The coefficient of determination (R^2) for the IKEAFANS community

	R Square
Brand attachment	0,761816
Community Commitment	0,751508
Community Identification	
Community Satisfaction	
Degree of influence	
PSBC	0,533832
Repurchase intention	0,293433
Word of mouth	0,617698

Community commitment (an endogenous variable with three exogenous variables as precursors) should be measured at a substantial level, i.e. 0.67. The coefficient of determination for community commitment takes on the value of 0.7515 and therefore lies at a substantial level. Moreover, brand attachment, having a R^2 of 0.7618, was assessed at a substantial level. Besides, "moderate'' R^2 (higher than 0,33) is assessed for PSBC with a value of 0.5338. Regarding the other latent variables, word of mouth lies between scores of a moderate and substantial level with a score of 0.6177. Thus, the result is satisfactory. Finally, repurchase intention with a R^2 value of 0.2934 is sufficiently close to 0.33 to be considered as a moderate level.

6.4.3.1. Hypotheses testing using bootstrapping

The bootstrapping procedure and consecutively statistical testing of hypotheses is used for the IKEAFANS sample in order to confirm or reject the hypotheses. Analogous to the IKEA FAMILY hej Community, the number of bootstrap samples is set to 500 for the IKEAFANS community. Based on the student's t-test, conclusions are drawn on the significance of path model relationships. An overview of path model relationships with their respective path coefficients and t-values is given in table 14.

Table 14: Path coefficients and t-values for the IKEAFANS community

	Hypotheses	Path coefficients	t-values
Community identification => PSBC	H9	0,731	9,068
Community identification => Community commitment	H1	0,569	4,694
Community satisfaction => Community commitment	H2	0,140	0,866
Degree of influence => Community commitment	H3	0,253	1,569
PSBC = > Brand attachment	H10	0.695	9,164
Community commitment =Brand attachment	H11	0,242	2,136
Brand attachment => Repurchase intention	H12	0,542	5,234
Brand attachment => Word of mouth	H13	0,786	10,983

At a significant level of 0.05 with 41 degrees of freedom, the t-value should be equal or above 2.02 to be significant. As a consequence, hypotheses H1, H9, H10, H11, H12, and H13 are confirmed for the IKEAFANS community, whereas hypotheses H2 and H3 have to be rejected.

6.4.4. Assessment of the moderating effect

The assessment of the moderating effect for the IKEAFANS community is analogous to the assessment of the moderating effect for the IKEA FAMILY hej community (cf. chapter 6.3.4.). Hence, a median split for the sample regarding active participation is undertaken. The median for this observation lies on the lowest level of active participation (actively participating once a month or less). Hence, according to our group comparison approach, those respondents having a level of active participation that is equal to the median are supposed to be dropped (cf. chapter 6.1.6.1.). However, since this would mean that group II could not be identified, we will adjust our approach be able to make an assessment of the moderating effect. As a consequence, group I (high level of active participation) is represented by respondents whose moderator score for active participation lies above the median, whereas group II (low level of active participation) is represented by respondents whose moderator score for active participation is on the lowest level.

Due to the small sample size, similar problems concerning validity and reliability of the model for group I and group II are likely to arise as were observed for the IKEA FAMILY hej

Community (cf. chapter 6.3.4.). Hence an assessment of the outer model and, if necessary, also of the inner model is undertaken in the next chapter.

6.4.4.1. Model assessment for group I and group II

The outer model has to be assessed first and be evaluated as valid and reliable in order to begin with the assessment of the inner model. For individual items to be reliable, outer loadings should be above 0.7. Items with outer loadings below 0.5 are to be dropped completely. Various items in the model for group I (COMMIT2, IDENT2, SATIS3, and DOI2) show outer loadings below 0.7 (see appendix W). The outer loading of DOI2 was even measured at 0.4067 and therefore had to be abandoned from the model. Besides, for group II all items outer loadings were measured above 0.7 (see appendix X) except for one item of degree of influence. DOI2 was measured at 0.4899 and therefore disregarded completely from the model.

On the construct level, reliability is assessed through Cronbach's alpha and composite reliability. Except for degree of influence, Cronbach's alpha for all other latent variables is measured at least at a satisfactory level for group I and group II alike (see appendix O and appendix P). Since Cronbach's alpha for degree of influence for group II is below 0.6, a lack of reliability has to be attested. Besides, internal consistency is not satisfactory for group I since Cronbach's alpha for degree of influence was measured at 0.6794. However, according to composite reliability internal consistency reliability for both groups is validated since all values exceed 0.7 (see appendix Q and appendix R).

Convergent validity and discriminant validity are considered in order to assess the model's validity. A sufficient degree of convergent validity is attested to latent variables if their AVE is at least 0.5. The lowest AVE score was 0.5316 (degree of influence) for group I, whereas the lowest AVE score for group II was 0.5101 (see appendix S and appendix T). AVE scores for all other latent variables for both groups lie above those values. Hence, sufficient convergent validity is found. Complementary, discriminant validity is assessed through the Fornell-Larcker criterion. The Fornell-Larcker criterion confirms discriminant validity for the model if the AVE of each latent variable is greater than the latent variable's highest squared correlation with any other latent variable. The Fornell-Larcker criterion is fulfilled for group I (see appendix U). However, the squared correlation of degree of influence/community satisfaction and degree of influence/community commitment are higher than the AVE score for degree of influence for group II (see appendix V). Consequently, the Fornell-Larcker

criterion is not fulfilled for group II. Through a comparison of indicator loadings and cross-loadings discriminant validity can be assessed. For discriminant validity to be ensured on the item level, loadings of each and every indicator are expected to be greater than all of its cross loadings. For group I, this criterion holds true for all indicators (see appendix W). Concerning group II, COMMIT5 has a greater cross loading with community satisfaction than with its respective latent variable community commitment (see appendix X). As a consequence, for the model of group II discriminant validity is not ensured on the indicator level.

6.4.4.2. Reflection

Given the assessment described in the previous chapter, the inner model of IKEAFANS community for group I and II has to be rejected since none of the two models show sufficient reliability and validity. Due to the rejection of the inner model, an estimation of the outer model is redundant. Moreover, since the models of group I and group II show already so many flaws concerning their validity and reliability, an estimation of the model for group III and group IV is not expected to yield better results. As a consequence, also the data set from the IKEAFANS community does not allow us to draw conclusions on the hypothesis H4a, H4b, H5, H6a, H6b, H7, H8a and H8b.

7. Discussion

In this chapter, the results of the analysis are discussed. Based on table 8 and table 14, table 15 depicts path coefficients and t-values for both online brand communities. As mentioned before, at a significance level of 0.05 t-values should be above 2.012 for the IKEA FAMILY hej Community and above 2.02 for the IKEAFANS community.

Table 15: Path coefficients and t-values sum up

	IKEA FAMILY hej Community		**IKEAFANS**	
	Path coefficients	t-values	Path coefficients	t-values
H9: Community identification => PSBC	0,599	4,918	0,731	9,068
H1: Community identification => Community commitment	0,500	3,153	0,569	4,694
H2: Community satisfaction => Community commitment	0,191	1,058	0,140	0,866
H3: Degree of influence => Community commitment	0,264	2,569	0,253	1,569
H10: PSBC => Brand attachment	0,329	2,214	0.695	9,164
H11: Community commitment =>Brand attachment	0,400	2,760	0,242	2,136
H12: Brand attachment => Repurchase intention	0,573	7,428	0,542	5,234
H13: Brand attachment => Word of mouth	0,767	13,094	0,786	10,983

Given t-values of 4.918 and 9.068 for the IKEA FAMILY hej Community and the IKEFANS Community, hypothesis H9 (community identification => PSBC) was confirmed to be significant for both communities. However, a path coefficient of 0.731 for the IKEAFANS community, as opposed to 0.599 for the IKEA FAMILY hej Community, shows a stronger correlation between community identification and PSBC for the IKEAFANS community than for the IKEA FAMILY hej Community. Hence, community identification has a stronger influence on PSBC in IKEAFANS community than in the IKEA FAMILY hej Community.

The hypothesis H1 has been confirmed for both models since the relationship between community identification and community commitment was evaluated to be significant with t-values of 3.153 and 4.694 for the IKEA FAMILY hej Community and the IKEAFANS

community respectively. Consequently, identification with the community leads to higher commitment to that community. However as both path coefficients were measured at a similar level, 0.5 and 0.569 for the IKEA FAMILY hej Community and IKEAFANS community respectively, no real differences between company-initiated and brand-initiated online brand community could be observed in this research.

T-values for the relationship between community satisfaction and community commitment were found to be 1.058 for the IKEA FAMILY hej Community and 0.866 for the IKEAFANS community. As a result, hypothesis H2 had to be rejected for both models.

Concerning the relationship between degree of influence and community commitment (H3), the path coefficient was measured at 0.264 whereas the t-value was 2.569 for the IKEA FAMILY hej Community. Thus, hypothesis H3 was confirmed for the IKEA FAMILY hej Community. On the contrary, the path coefficient and t-value for the IKEAFANS community was only measured at 0.253 and 1.569 respectively, resulting in the rejection of hypothesis H3 for this community. Hence, degree of influence has a significant influence on community commitment in the IKEA FAMILY hej Community but not in the IKEAFANS community. This difference might be caused by the fact that the IKEA FAMILY hej Community is a company-initiated online brand community, whereas the IKEAFANS community is a consumer-initiated online brand community. One might argue that members of consumer-initiated online brand communities do not attach so much importance to the degree of influence since the community is managed by individuals who are like themselves and therefore share similar objectives. In company-initiated online brand communities, the community is managed by the company and their marketers. As community members are likely to be aware that marketers' objectives and their own objectives differ, it appears reasonable to argue that community members have greater need to influence and shape a company-initiated than a consumer-initiated online brand community.

PSBC was found to have a positive influence on the level of brand attachment in both communities. H10 is therefore confirmed. That means that the psychological sense of brand community for community members leads to brand attachment. Indeed, one might argue that the more you feel that you have relational bonds to other community members, the greater the attachment to the brand. It is noteworthy to mention that the path coefficient for the IKEAFANS community is twice as big as the path coefficient for the IKEA FAMILY hej

Community, resulting in a bigger influence of PSBC on brand attachment for the former community.

One might argue that the difference in the relationship strength of PSBC and on brand attachment for the two online brand communities can be explained by the perception of other IKEA brand users by the IKEA FAMILY hej Community and IKEAFANS community members. Grounded in self-identity theory, Belk (1988) suggested that individuals' extended self is construed through their possessions ("we are what we have" (Belk, 1988, p.160)). Hence, consumers partially engage in consumption behaviour to construe their self-concepts. This is also applicable to the members of the two IKEA online brand communities analysed in this research who partially construe their extended self through the consumption of the IKEA brand. Besides, Escalas & Bettmann (2005) found empirical evidence that brands used by ingroups (one's own group) enhance consumers' self-brand connections. On the contrary, such connections are diminished for brands used by outgroups (groups to which one does not belong).

Given the results of our research, one might argue that there is different perception of who constitutes the ingroup and who constitutes the outgroup for the members of the two communities. Members of the company-initiated IKEA FAMILY hej Community might perceive the community as an "exclusive" group, with members being different from other brand users. Thus, for them, there is a rather clear distinction between community members (ingroup) and other brand users in general (outgroup). On the contrary, members of the consumer-initiated IKEAFANS community might not make such a clear distinction between themselves and other brand users, resulting in their perception of other brand users as belonging to their group (ingroup).

Indeed, one might argue that the IKEA FAMILY hej Community is more closely related to the IKEA brand than the IKEAFANS community since it is managed by IKEA employees and reflects the IKEA values. Thus, the IKEA FAMILY hej Community might share a more "exclusive" character attracting die-hard IKEA enthusiasts. As opposed to this IKEA brand focus within the IKEA FAMILY hej Community, the IKEAFANS community seems to be more related to IKEA's products. Results from our questionnaire show that most of the community members join the IKEAFANS community in order to discuss specific product matters. Indeed, 88% of respondents from the IKEAFANS survey are sharing or looking for information as a primary motive of membership for the IKEAFANS community (only 52%

for the IKEA FAMILY hej Community). As a consequence, the IKEAFANS community might be described as an "open" online brand community for individuals to retrieve information about IKEA products.

As a consequence, since IKEAFANS community members perceive other brand users as belonging to the ingroup, their relational bond with them (PSBC) might have a stronger influence on their attachment to IKEA (the brand). On the contrary, as IKEA FAMILY hej Community members might perceive other brand users as belonging to the outgroup, their relational bonds with them (PSBC) detracts community members' self-brand connections and therefore their brand attachment.

The hypothesis H11 was confirmed for both models since the relationship between community commitment and brand attachment was evaluated to be significant with t-values of 2.76 and 2.136 for the IKEA FAMILY hej community and the IKEAFANS community respectively. Moreover, the path coefficient for this link is 0.400 for the IKEA FAMILY hej Community, whereas the IKEAFANS community has a path coefficient of 0.242. Hence, we can conclude that the community commitment for the IKEA FAMILY hej Community leads to a stronger brand attachment than for the IKEAFANS community. One might argue that community members' commitment to the community leads to more attachment for the IKEA FAMILY hej Community than for the IKEAFANS community given the closer connection of the company-initiated online brand community to the brand, as described above. Hence, community member's commitment to the community has a stronger influence to the bond with the IKEA brand in the IKEA FAMILY hej Community. On the contrary, the rather functional product orientation of the IKEAFANS community still yields to a positive relationship between members' commitment to the community and their brand attachment yet not as strong as for the IKEA FAMILY hej Community.

Hypothesis H12 was confirmed for both communities with significant t-values (7.42 and 5.42). The path coefficients of both communities attest a link between brand attachment and repurchase intention of 0.573 and 0.542 respectively for IKEA FAMILY hej Community and IKEAFANS. The results show that the influence of brand attachment on repurchase intention is slightly higher for the members of the IKEA FAMILY hej Community than for the IKEAFANS. However, this difference is so small that we will not take it into consideration. Hence we cannot conclude on any difference regarding the influence of brand attachment on repurchase intention for these two communities.

On the contrary, the link between brand attachment and WOM is marginally stronger for the IKEAFANS community than for the IKEA FAMILY hej Community (with significant t values). This means that IKEAFANS community members' attachment to the brand results has a slightly higher WOM and a slightly lower repurchase intention than IKEA FAMILY hej Community. This minor difference between communities and the resulting similar level of path coefficients does not enable us to conclude on real differences between company-initiated and brand-initiated online brand communities regarding WOM and repurchase intention for this research. Moreover, hypothesis H13 is confirmed.

7.1. Customer Based Brand Equity (CBBE)

As previously mentioned in chapter 2.7.2., one of the facets of brand equity is the Customer Based Brand Equity, also called CBBE. When putting our results in perspective with the CBBE pyramid, which describes the steps to go through for a company to create a strong brand, we can conclude that IKEA has a strong and positive CBBE. Indeed, IKEA has reached the highest step of the CBBE pyramid, i.e. brand resonance (the extent to which customers feel connected to the brand and the "level of activity engendered by this loyalty" (Keller, 2001, p.15)). In the following section, we will look into the brand resonance for IKEA: behavioural loyalty, attitudinal attachment, sense of community and active engagement.

First of all, behavioural loyalty was measured by our research through repurchase intention. As we have seen, behavioural loyalty is high for both communities. Indeed, in the IKEA FAMILY hej Community, 96% of the respondents agree (or strongly agree) with the statement that they intend to rebuy IKEA products in the future, and 94% agree (or strongly agree) with the statement that there is a high probability for them to do so. Regarding the IKEAFANS community, 98% of the respondents agree (or strongly agree) with the statement that they intend to rebuy IKEA products in the future, and 100% agree (or strongly agree) with the statement that there is a high probability for them to do so.

Secondly, attitudinal attachment is also measured by our model with the construct of "brand attachment". The results show that respondents of both communities are highly attached to the brand.

Thirdly, respondents perceive a certain sense of community. Indeed, Keller (2001) explains that a sense of community results in consumers taking part in brand communities by

becoming members. Therefore, as we have analysed two online brand communities, and given the fact that other ones exist for the same brand (e.g. http://www.ikea-fans.de/) it is obvious that IKEA members have a strong sense of community.

Finally, Keller (2001) describes customers as being actively engaged when "willing to invest time, energy, money into the brand beyond those expended during purchase or consumption of the brand" (Keller, 2001, p.15). The amount of time spent by online community members to participate in the online brand communities enables us to say that they are actively engaged.

Hence, we conclude that IKEA reaches the ultimate level of the CBBE pyramid, being a strong brand. Besides, our research shows that brand communities are legitimate tools that can be used in order to create and leverage brand resonance.

7.2. Online brand community management

As mentioned before, brand communities have been identified as one of companies' stakeholders. Given an individual member's great interest in the brand and the level of power that an online brand community as a whole might exert, online brand communities can be identified as key players within the power-interest matrix that must be given the outmost consideration by companies (Cornelissen, 2008). This chapter seeks to reflect the results of our research in the light of brand community management as was previously discussed in chapter 2.8.

As already mentionned (cf. chapter 7), degree of influence was found to a have a significant influence on community commitment for the IKEA FAMILY hej Community, whereas such an effect was not observed for the IKEAFANS community. In other words, the perceived degree of control and power of IKEA FAMILY hej Community members on the community is an important factor for their development of commitment to it. As community commitment ultimately results in brand loyalty, as shown in our research, considerable consequences and recommendations for IKEA and their management of the IKEA FAMILY hej Community can be derived from these findings. As argued in the following, a dialogue strategy would be more suitable than a persuasive communication strategy (cf. chapter 2.8) for the IKEA FAMILY hej Community.

The persuasive communication strategy attempts to change community members' attitudes and behaviour in a way that is favourable to the organization, without changing the company's practices as a result of the communication. Although feedback from community members might be gathered through this strategy, it is not taken into consideration. Hence "effects of communication are unbalanced in favour of the organization" (Cornelissen, 2008, p.55). Consequently, this strategy undermines community members' control and power over the community, i.e. degree of influence as conceptualized in our study. As a result, following a persuasive communication strategy to manage the IKEA FAMILY hej Community, IKEA would hazard the consequences of partially losing members' commitment to the community, since degree of influence has been proved to be linked to community commitment in this research. Therefore, one might argue that a persuasive communication strategy is an inappropriate means to manage the IKEA FAMILY hej Community.

On the contrary, a dialogue strategy (cf. chapter 2.8.) can be expected to yield better results for IKEA. This two-way symmetrical communication strategy seeks to exchange views between both parties (for our case, IKEA and IKEA FAMILY hej Community members) and reach a mutual understanding. The dialogue strategy therefore recognizes brand communities as a legitimate stakeholder by giving equal opportunities of expression and by guaranteeing free exchange of information (Cornelissen, 2008). One might argue that such a strategy enhances community members' perceived degree of influence over the community. Hence, IKEA can facilitate the development of community commitment within the IKEA FAMILY hej Community, and thus ultimately brand loyalty, by pursuing a two-way symmetrical dialogue strategy.

The dialogue strategy also corresponds to idea put forward by the literature about the ownership of the brand. Muniz & O'Guinn (2005) suggest that brand communities are making considerable claims on the ownership of the brand. They further specify that brand communities "assert more channel power, more claims on core competencies formerly reserved for the marketer" (Muniz Jr & O'Guinn, 2005, p.268). As a consequence, Cova & Pace (2006) propose that "consumers now increasingly see brands as shared cultural property (Holt, 2004) rather than as privately owned intellectual property" (Cova & Pace, 2006b, p.1089)(Cova & Pace, 2006a) and a new ethos of brand participation is emerging. In a sense, findings of our research point towards a co-creational paradigm in the management of online brand communities. This open ended relational process regards consumers as operant sources through interaction in order to create or modify a product or service offered by the company

(Hertz Larsen & Greenfort, 2009). Thus, companies have to consider consumers as "active co-creators of values", as opposed to thinking of them as "passive recipients of value" (Ramaswamy, 2009).

7.3. Theoretical implications

In this section we will describe in what way this thesis contributes to science. Our research contributes to the lack of literature on online brand communities as opposed to the amount of research regarding brand communities in general (Arora, 2009; McAlexander, Schouten, & Koenig, 2002; Muniz Jr. & O'Guinn, 2001; Schau, Muñiz, & Arnould, 2009). As online brand communities are defined as a certain type of brand communities, this research used the brand community literature and applied it to online brand communities.

Carlson et al. (2008) empirically demonstrated the existence of a link between community identification and PSBC, and our research further validated these findings. Beyond that, based on the same research the authors found a link between PSBC and brand commitment. Due to our discussion on the similarities of brand commitment and brand attachment, our research demonstrated that a link existed between brand attachment and PSBC.

Jang et al. (2008) demonstrated the existence of a positive relationship between brand commitment and brand loyalty. Our research validated this link indirectly. Taking into consideration the study of Whan Park et al. (2010), our research found an established link between brand attachment and brand loyalty showing that brand attachment is a predictor of brand loyalty. Therefore, the attitudinal aspect of a consumer brand relationship is an antecedent of behavioural brand loyalty.

Finally, the sequence -community commitment, brand attachment, brand loyalty- was established in our research. Other findings were discovered, not previously empirically studied in the brand community literature such as the link between degree of influence and community commitment for the consumer initiated online brand communities.

8. Conclusion

The objective of this research is determined by two research questions. The first research question seeks to understand the process of brand loyalty creation within online brand communities. The second research question is interested in finding differences between a consumer-initiated and a company-initiated online brand community. This part of the paper gives answers to these two research questions by making conclusions as to the results of the study of two IKEA online brand communities.

In order to answer the research questions, a conceptual framework was developed based on previous research. Given the collected data from two IKEA online brand communities (IKEA FAMILY hej Community and IKEAFANS) and 16 previously developed hypotheses, relationships between constructs incorporated in the conceptual framework were explained. To analyse the collected data, a structural equation modeling (PLS) approach was made.

Based on previous research, three antecedents (community identification, community satisfaction, and degree of influence) were hypothesized to influence community commitment. However, findings of the research propose that not all three variables have a significant influence on community members' commitment to the online brand communities.

First, the research found community members identification with the community to be influential on their commitment to it. Besides, no links can be found between the community members' satisfaction with the community and their commitment to it. Finally, regarding the relationship between degree of influence and community commitment, no general conclusions can be made since the results differ from one community to another (company-initiated and consumer-initiated online brand communities). This difference will be further explained below.

Building on the brand triad relationship model (cf. chapter 2.3), the positive relationship found by Kim et al. (2008) between community commitment and brand attachment is confirmed. Hence, the research proves online brand communities to have a positive influence on consumers' relationships with brands. Furthermore, our findings show that online brand community members' attachment to the brand ultimately results in behavioural brand loyalty. Brand loyalty is conceptualized as composed of the repurchase intention and word of mouth variables; both are found to be positively influenced by online community members' brand attachment.

Moreover, the research supports the previous findings of Carlson et al (2008) stating that there is a positive relationship between community members' identification and PSBC. Additionally, PSBC was found to have a significant influence on brand attachment, hence, emphasizing the importance of community identification in the brand loyalty creation process within online brand communities.

However, due to a relatively small sample size for both online brand communities, the moderating effect of participation in the brand loyalty creation process could not be analysed since the model assessing the moderating effect was not valid and reliable.

After having answered the first research question and having understood the brand loyalty creation process within online brand communities, an analysis of the differences between company-initiated and consumer-initiated online brand communities was undertaken. Regarding their brand loyalty creation, the main difference is observed in the relationship between the variables of degree of influence and community commitment. Indeed, this relationship only exists for the IKEA FAMILY hej Community. Therefore, in our research the link between degree of influence and community commitment is found only for the company-initiated online brand communities.

The other differences between these two types of online brand communities are found in the strength of relationships between different variables. As a matter of fact, the relationship between PSBC and brand attachment is more than twice as strong in a consumer initiated online brand community than in a company initiated online brand community. Conversely, the strength of the relationship between community commitment and brand attachment is stronger for a company initiated online brand community than a consumer initiated online brand community.

9. Future research

This research contributes to the online brand community literature by showing how brand loyalty is created within a company-initiated and a consumer-initiated online brand community. One of the key findings regarding the comparison of the communities in this study reveals that degree of influence was found to be an antecedent of community commitment within the company-initiated IKEA FAMILY hej Community but not within the consumer-initiated IKEAFANS community. However, this research does not allow us to generalize this finding to online brand communities at large. Thus, future research could address the question if such an effect can also be observed for company-initiated and consumer initiated online brand communities in general.

Moreover, this research found satisfaction not to have a significant influence on community commitment. However, future research could investigate this matter in more detail. For example, a research on virtual communities proved satisfaction to have an influence on loyalty (Lin, 2008). Besides, Woisetschläger et al. (2008) empirically validated community satisfaction to be an antecedent of participation in a community. Given this previous research on satisfaction, if not as an antecedent to community commitment, where does the relevance of community satisfaction lie for the creation of brand loyalty within online brand communities?

Due to the relatively low response rate for our questionnaire and thus a relatively small sample size, it was not possible to evaluate the moderation effect of participation on the relationship between the three antecedents (community identification, community satisfaction, and degree of influence) and community commitment. Future research can therefore use the conceptual framework to test whether or not a moderating effect of participation exists for the described relationship. However, since community satisfaction was found to not have a significant relationship with community commitment, it might be disregarded from future research

As mentioned before, the respondents of our survey were mostly female (IKEA FAMILY hej Community 81%; IKEAFANS community 73.8%). Hence, one might wonder if the results of this research might have looked different if the majority of respondents had been males. For example, Parks & Floyd (1996) found that women are more likely to form a personal relationship online than men. Moreover, future research can focus on other social

demographic factors like, for instance, income or education to understand if and how they influence the brand loyalty creation process within online brand communities.

Besides, length of membership has been incorporated in our study yet only as a factor to describe the samples. However, Madupu & Cooley (2010) suggested length of membership to have an influence on the relationship between participation and the markers of community (consciousness of kind, shared rituals and traditions, and moral responsibility). Hence, future research could look into this issue to research if it has an influence on the brand loyalty creation process.

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Appendix

Appendix A: Description of the items

For all the constructs, we selected items from previous research. This selection was made based on our literature review and the definition of our constructs. Therefore, some constructs include items resulting from a combination of different articles and research.

Participation:

We found items for participation in the research of Woisetschläger et al.(2008),originally taken from Von Loewenfeld (2006). However, these items did not represent the participation construct as we defined it. Indeed, we consider the construct of participation as a moderator influencing the strength of the relationship between three antecedents and the variable of community commitment. Therefore, we measured participation as the frequency of use of the community and distinguished active from passive participation.

Community Identification:

The items considered for the construct of community identification were taken from the research by Woisetschläger et al. (2008) (taken from Von Loewenfeld (2006)).

Community satisfaction:

The items for this construct were taken from Woisetschläger et al. (2008) (originally from Von Loewenfeld (2006)). Since we simply adopted the definition from this research, items were also adopted from this research.

Degree of influence:

We also adopted the items for the degree of influence construct from Woisetschläger et al. (2008) (originally from Von Loewenfeld (2006)). We only modified one of them in its wording, so community members could better relate to it.

Psychological Sense of Brand Community (PSBC)

For this construct we adopted the items from Carlson et al. (2008). The specific items used in this research are not published in the article. However, we obtained them by asking Madsen

(2010), a former CBS student, as we knew she had them from her correspondence with Carlson (2008).

Community commitment:

Our conceptualization of community commitment includes two aspects: affective commitment and continuance commitment. Therefore, we considered items of both aspects. For the affective commitment, we took into consideration the items developed by Keller (2008) for brand commitment. Therefore, we modified them and adapted them to the "community" instead of the "brand".

For the other aspect of continuance commitment, we considered one item from Kim et al. (2008) only, the others being irrelevant because they were too close to other constructs such as PSBC or participation. The other two items we considered for this aspect were derived from Algesheimer et al. (2005).

Brand attachment:

We adopted, for this construct, items from Keller (2008).

Word of Mouth

The items used to represent word of mouth were derived from Kim et al. (2008). However, this research paper only incorporated two items. Thus, we took a third item from the article of Woisetschläger et al. (2008), originally from Zeithaml et al. (1996), in order to improve the reliability of the measurement of the construct thanks to the items.

The wording was slightly modified for all the items considered. The present tense was used instead of the conditional tense for the items from Kim et al. (2008), and the past tense was changed to the present tense for the other item from Zeithaml et al. (1996)

Repurchase intentions:

Items are taken from Yi et al. (2004). They describe repeat purchase intention and repeat purchase probability as indicators of repurchase intention. However, we modified their interrogative items into statements because we chose to use a Likert Scale in order to measure the degree to which people agree or disagree with them.

Appendix B: Overview of the items

Constructs	Items	References	Comments
Community identification	I see myself as belonging to the IKEA community	Woisetschläger et al. (2008) -> taken from Von Loewenfeld (2006)	
	I see myself as a typical and representative member of the IKEA community	Woisetschläger et al. (2008) -> taken from Von Loewenfeld (2006)	
	The virtual IKEA community confirms in many aspects my view of who I am	Woisetschläger et al. (2008) -> taken from Von Loewenfeld (2006)	
	I can identify with the IKEA community	Woisetschläger et al. (2008) -> taken from Von Loewenfeld (2006)	
Community satisfaction	Overall, the IKEA community meets my expectations	Woisetschläger et al. (2008) -> taken from Von Loewenfeld (2006)	
	The content of the IKEA community matches exactly with my interests	Woisetschläger et al. (2008) -> taken from Von Loewenfeld (2006)	
	The IKEA community fulfils my needs	Woisetschläger et al. (2008) -> taken from Von Loewenfeld (2006)	
Degree of influence	As a member of [NAME] community, I can influence the community as a whole	Woisetschläger et al. (2008) -> taken from Von Loewenfeld (2006)	
	I am satisfied with the degree of influence to shape the [NAME] community	Woisetschläger et al. (2008) -> taken from Von Loewenfeld (2006)	
	I have the chance to be an active part in the [NAME] community	Woisetschläger et al. (2008) -> taken from Von Loewenfeld (2006)	Slightly modified from the original construct
PSBC	I feel strong ties to other IKEA brand users.	Madsen (2010)-> taken from Carlson et al. (2008)	
	I find it very easy to form a bond with other IKEA brand users	Madsen (2010)-> taken from Carlson et al. (2008)	
	A strong feeling of camaraderie exists between me and other people that use IKEA	Madsen (2010)-> taken from Carlson et al. (2008)	
	To use the brand gives me a sense of communion	Madsen (2010)-> taken from Carlson et al. (2008)	
	I have a sense of community with other users of the brand	Madsen (2010)-> taken from Carlson et al. (2008)	

Constructs	Items	References	Comments
Community commitment	I feel like I am personally connected to the [NAME] community	Keller (2008) adapted from the construct of "brand commitment"	Affective commitment
	I really love the [NAME] community	Keller (2008) adapted from the construct of "brand commitment"	Affective commitment
	I really would miss the [NAME] community if it went away	Keller (2008) adapted from the construct of "brand commitment"	Affective commitment
	It would be very difficult for me to leave the [NAME] community	Algesheimer et al. (2005)	Continuance commitment
	I intend to stay on as a [NAME] community member	Algesheimer et al. (2005)	Continuance commitment
	I expect that I will continuously participate in [NAME] community activities	Kim et al. (2008)	Continuance commitment
Brand attachment	I feel like I am personally connected to the IKEA brand	Keller (2008)	
	I really love the IKEA brand	Keller (2008)	
	I really would miss the IKEA brand if it went away	Keller (2008)	
	The IKEA brand is special to me	Keller (2008)	
	This IKEA brand is more than a product to me	Keller (2008)	
Word of mouth	I introduce the brand to others	Kim et al. (2008)	Slightly modified to put the present tense
	I recommend the brand to others	Kim et al. (2008)	Slightly modified to put the present tense
	I say positive things about the IKEA brand to other people	Woisetschläger et al. (2008) -> taken from Zeithaml et al. (1996)	Slightly modified to put the present tense
Repurchase intention	I intend to rebuy an IKEA product	Yi et al. (2004)	Slightly modified from a question to a statement
	There is a high probability that I will rebuy an IKEA product in the future	Yi et al. (2004)	Slightly modified from a question to a statement

Appendix C: Cross loadings and outer loadings for the IKEA FAMILY hej Community

	Degree of influence	PSBC	Repurchase Intention	WOM	Brand attachment	Community identification	Community satisfaction	Community commitment
ATTACH1	0,408	0,581	0,587	0,692	**0,872**	0,504	0,430	0,597
ATTACH2	0,400	0,546	0,508	0,706	**0,913**	0,519	0,408	0,651
ATTACH3	0,410	0,496	0,484	0,635	**0,889**	0,423	0,356	0,467
ATTACH4	0,478	0,508	0,528	0,721	**0,942**	0,488	0,396	0,509
ATTACH5	0,459	0,496	0,462	0,693	**0,887**	0,432	0,287	0,509
COMMIT1	0,531	0,755	0,299	0,438	0,572	0,664	0,560	**0,880**
COMMIT2	0,436	0,503	0,318	0,374	0,527	0,650	0,600	**0,868**
COMMIT3	0,524	0,576	0,176	0,411	0,549	0,695	0,634	**0,893**
COMMIT4	0,531	0,627	0,243	0,377	0,549	0,657	0,515	**0,860**
COMMIT5	0,455	0,399	0,420	0,533	0,494	0,481	0,490	**0,762**
COMMIT6	0,361	0,259	0,350	0,371	0,320	0,543	0,469	**0,717**
DOI1	**0,729**	0,481	0,152	0,210	0,323	0,3214	0,205	0,376
DOI2	**0,778**	0,225	0,177	0,178	0,243	0,403	0,571	0,394
DOI3	**0,917**	0,551	0,274	0,426	0,541	0,349	0,408	0,587
IDENT1	0,370	0,478	0,172	0,335	0,434	**0,792**	0,439	0,649
IDENT2	0,251	0,411	0,172	0,384	0,375	**0,702**	0,384	0,385
IDENT3	0,386	0,549	0,198	0,304	0,422	**0,854**	0,690	0,581
IDENT4	0,368	0,489	0,186	0,415	0,467	**0,869**	0,632	0,726
PSBC1	0,553	**0,909**	0,298	0,336	0,604	0,516	0,350	0,647
PSBC2	0,387	**0,789**	0,290	0,265	0,438	0,382	0,287	0,439
PSBC3	0,442	**0,900**	0,242	0,287	0,420	0,494	0,376	0,528
PSBC4	0,432	**0,913**	0,310	0,349	0,497	0,603	0,351	0,629
PSBC5	0,450	**0,826**	0,267	0,427	0,596	0,525	0,399	0,477
PSBC6	0,496	**0,899**	0,202	0,379	0,480	0,586	0,480	0,617
RI1	0,240	0,303	**0,967**	0,524	0,527	0,188	0,304	0,314
RI2	0,258	0,292	**0,973**	0,595	0,582	0,245	0,323	0,365
SATIS1	0,319	0,337	0,217	0,290	0,233	0,608	**0,875**	0,575
SATIS2	0,457	0,379	0,396	0,510	0,493	0,558	**0,873**	0,505
SATIS3	0,507	0,425	0,266	0,413	0,401	0,628	**0,911**	0,652
WOM1	0,163	0,335	0,475	**0,847**	0,573	0,172	0,208	0,288
WOM2	0,279	0,295	0,535	**0,954**	0,676	0,385	0,388	0,423
WOM3	0,474	0,424	0,545	**0,900**	0,792	0,573	0,567	0,588

Appendix D: Cronbach's Alpha Coefficient for the IKEA FAMILY hej Community (group I)

	Cronbachs Alpha
Brand attachment	0,908635
Community Identification	0,767175
Community Satisfaction	0,794764
Community commitment	0,905481
Degree of Influence	0,749786
PSBC	0,900730
Repurchase intention	0,844129
WOM	0,768247

Appendix E: Cronbach's Alpha Coefficient for the IKEA FAMILY hej Community (group II)

	Cronbachs Alpha
Brand attachment	0,969724
Community Identification	0,807186
Community Satisfaction	0,883451
Community commitment	0,907968
Degree of Influence	0,628247
PSBC	0,953099
Repurchase intention	0,944402
WOM	0,883916

Appendix F: Composite reliability for the IKEA FAMILY hej Community (Group I)

	Composite Reliability
Brand attachment	0,931815
Community Identification	0,850022
Community Satisfaction	0,878155
Community commitment	0,927084
Degree of Influence	0,855923
PSBC	0,924158
Repurchase intention	0,927694
WOM	0,866580

Appendix G: Composite reliability for the IKEA FAMILY hej Community (Group II)

	Composite Reliability
Brand attachment	0,976357
Community Identification	0,870477
Community Satisfaction	0,927302
Community commitment	0,928525
Degree of Influence	0,657891
PSBC	0,962419
Repurchase intention	0,972691
WOM	0,926523

Appendix H: Cross loadings and outer loadings for the IKEA FAMILY hej Community (group I)

	Brand attachment	Community commitment	Community identification	Community satisfaction	Degree of influence	PSBC	Repurchase intention	Word of mouth
ATTACH1	**0,860**	0,526	0,590	0,451	0,444	0,476	0,548	0,611
ATTACH2	**0,840**	0,727	0,495	0,522	0,503	0,548	0,520	0,598
ATTACH3	**0,905**	0,614	0,434	0,378	0,485	0,469	0,538	0,624
ATTACH4	**0,906**	0,574	0,547	0,435	0,531	0,441	0,538	0,570
ATTACH5	**0,746**	0,422	0,399	0,264	0,512	0,439	0,190	0,404
COMMIT1	0,691	**0,901**	0,754	0,519	0,785	0,803	0,241	0,392
COMMIT2	0,636	**0,818**	0,613	0,537	0,560	0,512	0,417	0,281
COMMIT3	0,528	**0,899**	0,704	0,558	0,699	0,527	0,131	0,252
COMMIT4	0,532	**0,818**	0,660	0,534	0,723	0,546	0,249	0,220
COMMIT5	0,400	**0,722**	0,458	0,525	0,416	0,284	0,319	0,532
COMMIT6	0,535	**0,775**	0,575	0,573	0,476	0,383	0,478	0,613
DOI1	0,616	0,622	0,621	0,511	**0,836**	0,686	0,422	0,315
DOI2	0,097	0,410	0,494	0,543	**0,670**	0,425	0,087	0,064
DOI3	0,571	0,758	0,679	0,487	**0,925**	0,759	0,235	0,199
IDENT1	0,224	0,490	**0,685**	0,253	0,632	0,583	0,116	0,078
IDENT2	0,201	0,219	**0,603**	0,111	0,087	0,439	0,031	0,218
IDENT3	0,536	0,696	**0,900**	0,775	0,670	0,639	0,351	0,302
IDENT4	0,674	0,794	**0,851**	0,723	0,690	0,667	0,356	0,534
PSBC1	0,667	0,763	0,821	0,554	0,799	**0,886**	0,295	0,318
PSBC2	0,533	0,400	0,410	0,112	0,418	**0,647**	0,250	0,362
PSBC3	0,128	0,408	0,507	0,255	0,512	**0,787**	0,175	0,104
PSBC4	0,488	0,642	0,684	0,382	0,695	**0,916**	0,333	0,238
PSBC5	0,478	0,297	0,562	0,347	0,694	**0,811**	0,274	0,223
PSBC6	0,252	0,490	0,666	0,449	0,640	**0,843**	0,125	0,190
RI1	0,523	0,321	0,211	0,349	0,231	0,318	**0,928**	0,420
RI2	0,533	0,349	0,376	0,485	0,361	0,251	**0,931**	0,403
SATIS1	0,5645	0,561	0,655	**0,876**	0,536	0,472	0,480	0,499
SATIS2	0,332	0,431	0,552	**0,812**	0,398	0,287	0,235	0,419
SATIS3	0,332	0,617	0,513	**0,830**	0,570	0,364	0,386	0,287
WOM1	0,558	0,284	0,145	0,263	0,162	0,301	0,261	**0,820**
WOM2	0,481	0,141	0,132	0,176	-0,029	0,047	0,319	**0,889**
WOM3	0,592	0,624	0,650	0,675	0,435	0,362	0,496	**0,768**

Appendix I: Cross loadings and outer loadings for the IKEA FAMILY hej Community (group II)

	Brand attachment	Community commitment	Degree of influence	Community identification	PSBC	Repurchase intention	Community satisfaction	Word of mouth
ATTACH1	**0,916**	0,619	0,374	0,332	0,684	0,634	0,345	0,744
ATTACH2	**0,957**	0,653	0,285	0,562	0,668	0,436	0,329	0,745
ATTACH3	**0,939**	0,500	0,385	0,419	0,660	0,463	0,349	0,609
ATTACH4	**0,950**	0,527	0,385	0,412	0,654	0,404	0,300	0,695
ATTACH5	**0,957**	0,546	0,399	0,380	0,585	0,550	0,241	0,844
COMMIT1	0,572	**0,893**	0,379	0,589	0,687	0,345	0,542	0,553
COMMIT2	0,505	**0,937**	0,325	0,739	0,381	0,183	0,596	0,467
COMMIT3	0,633	**0,888**	0,322	0,699	0,441	0,122	0,693	0,569
COMMIT4	0,625	**0,901**	0,246	0,644	0,560	0,163	0,479	0,563
COMMIT5	0,390	**0,724**	0,489	0,369	0,393	0,266	0,385	0,328
COMMIT6	0,048	**0,575**	0,129	0,397	-0,023	0,095	0,297	-0,018
DOI1	0,120	-0,129	**0,044**	-0,115	0,182	-0,021	-0,254	0,030
DOI2	0,153	0,152	**0,776**	0,182	-0,057	-0,017	0,483	-0,039
DOI3	0,453	0,358	**0,912**	0,019	0,348	0,249	0,267	0,412
IDENT1	0,450	0,695	0,140	**0,845**	0,340	0,001	0,347	0,308
IDENT2	0,461	0,335	0,039	**0,675**	0,214	0,175	0,458	0,498
IDENT3	0,276	0,365	0,098	**0,733**	0,308	-0,032	0,667	0,182
IDENT4	0,267	0,716	0,065	**0,899**	0,207	0,001	0,612	0,256
PSBC1	0,713	0,476	0,269	0,180	**0,931**	0,452	0,158	0,505
PSBC2	0,470	0,217	0,126	0,118	**0,822**	0,563	0,225	0,310
PSBC3	0,620	0,382	0,155	0,250	**0,944**	0,348	0,266	0,459
PSBC4	0,555	0,480	-0,013	0,382	**0,879**	0,447	0,230	0,494
PSBC5	0,724	0,625	0,226	0,458	**0,931**	0,292	0,459	0,631
PSBC6	0,576	0,607	0,346	0,338	**0,886**	0,210	0,390	0,472
RI1	0,461	0,149	0,216	-0,019	0,379	0,967	0,110	0,374
RI2	0,564	0,295	0,183	0,067	0,420	0,978	0,122	0,550
SATIS1	0,135	0,595	0,245	0,623	0,196	0,030	**0,897**	0,247
SATIS2	0,468	0,447	0,561	0,450	0,346	0,295	**0,876**	0,440
SATIS3	0,333	0,612	0,473	0,597	0,356	0,047	**0,924**	0,339
WOM1	0,480	0,238	-0,057	0,036	0,464	0,460	0,067	**0,808**
WOM2	0,693	0,544	0,295	0,349	0,449	0,483	0,345	**0,963**
WOM3	0,841	0,606	0,47	0,493	0,552	0,391	0,482	**0,919**

Appendix J: AVE for the IKEA FAMILY hej community (group I)

	AVE
Brand attachment	0,733072
Community Identification	0,592245
Community Satisfaction	0,706304
Community commitment	0,680706
Degree of Influence	0,668201
PSBC	0,672538
Repurchase intention	0,865139
WOM	0,684815

Appendix K: AVE for the IKEA FAMILY hej community (group II)

	AVE
Brand attachment	0,892025
Community Identification	0,629823
Community Satisfaction	0,809665
Community commitment	0,689303
Degree of Influence	0,479067
PSBC	0,810514
Repurchase intention	0,946836
WOM	0,808627

Appendix L: Fornell-Larcker criterion for the IKEA FAMILY hej Community (Group I)

	Brand attachment	Community identification	Community satisfaction	Community commitment	Degree of influence	PSBC	Repurchase intention	WOM
Brand attachment	**0,733**							
Community identification	0,336	**0,592**						
Community satisfaction	0,241	0,464	**0,706**					
Community commitment	0,465	0,595	0,424	**0,681**				
Degree of influence	0,328	0,545	0,371	0,571	**0,668**			
PSBC	0,309	0,589	0,205	0,410	0,619	**0,673**		
Repurchase intention	0,323	0,101	0,202	0,130	0,102	0,094	**0,865**	
WOM	0,445	0,156	0,222	0,198	0,062	0,091	0,196	**0,685**

(Squared latent variable correlations = normal numbers / AVE = bold numbers)

Appendix M: Fornell-Larcker criterion for the IKEA FAMILY hej Community (Group II)

	Brand attachment	Community identification	Community satisfaction	Community commitment	Degree of influence	PSBC	Repurchase intention	WOM
Brand attachment	**0,892**							
Community identification	0,198	**0,630**						
Community satisfaction	0,110	0,396	**0,810**					
Community commitment	0,367	0,505	0,388	**0,689**				
Degree of influence	0,150	0,018	0,212	0,147	**0,479**			
PSBC	0,475	0,112	0,108	0,287	0,044	**0,811**		
Repurchase intention	0,283	0,001	0,014	0,056	0,042	0,171	**0,947**	
WOM	0,602	0,136	0,137	0,300	0,099	0,299	0,234	**0,809**

(Squared latent variable correlations = normal numbers / AVE = bold numbers)

Appendix N: Cross loadings and outer loadings for IKEAFANS

	Brand attachment	Community commitment	Degree of influence	Community identification	PSBC	Repurchase intention	Community satisfaction	Word of mouth
ATTACH1	**0,909**	0,617	0,545	0,695	0,855	0,385	0,446	0,679
ATTACH2	**0,925**	0,632	0,505	0,618	0,744	0,561	0,550	0,733
ATTACH3	**0,906**	0,706	0,614	0,671	0,815	0,443	0,582	0,719
ATTACH4	**0,943**	0,614	0,403	0,608	0,793	0,552	0,389	0,758
ATTACH5	**0,933**	0,644	0,388	0,599	0,735	0,552	0,432	0,736
COMMIT1	0,650	**0,907**	0,737	0,717	0,637	0,379	0,545	0,621
COMMIT2	0,622	**0,873**	0,645	0,752	0,543	0,492	0,614	0,599
COMMIT3	0,578	**0,863**	0,628	0,693	0,567	0,436	0,657	0,647
COMMIT4	0,530	**0,901**	0,579	0,624	0,517	0,453	0,562	0,591
COMMIT5	0,623	**0,878**	0,663	0,754	0,558	0,562	0,763	0,629
COMMIT6	0,696	**0,922**	0,671	0,826	0,654	0,462	0,567	0,630
DOI1	0,634	0,761	**0,872**	0,649	0,642	0,428	0,567	0,622
DOI2	0,261	0,358	**0,716**	0,463	0,389	0,155	0,708	0,263
DOI3	0,299	0,574	**0,852**	0,452	0,356	0,203	0,758	0,218
IDENT1	0,618	0,843	0,618	**0,934**	0,653	0,442	0,539	0,650
IDENT2	0,533	0,624	0,514	**0,868**	0,645	0,385	0,477	0,603
IDENT3	0,640	0,661	0,498	**0,867**	0,690	0,366	0,471	0,577
IDENT4	0,624	0,732	0,652	**0,829**	0,570	0,447	0,684	0,634
PSBC1	0,800	0,556	0,497	0,626	**0,919**	0,414	0,476	0,662
PSBC2	0,706	0,553	0,631	0,603	**0,899**	0,413	0,553	0,660
PSBC3	0,786	0,661	0,566	0,740	**0,953**	0,392	0,483	0,686
PSBC4	0,771	0,641	0,544	0,757	**0,928**	0,465	0,487	0,705
PSBC5	0,837	0,606	0,552	0,632	**0,916**	0,405	0,45	0,675
PSBC6	0,839	0,610	0,509	0,694	**0,947**	0,428	0,492	0,715
RI1	0,601	0,584	0,388	0,516	0,499	**0,978**	0,425	0,800
RI2	0,413	0,389	0,276	0,363	0,350	**0,954**	0,358	0,608
SATIS1	0,285	0,493	0,660	0,437	0,320	0,175	**0,843**	0,259
SATIS2	0,660	0,794	0,761	0,718	0,643	0,517	**0,922**	0,617
SATIS3	0,280	0,411	0,643	0,352	0,301	0,292	**0,862**	0,326
WOM1	0,748	0,715	0,534	0,692	0,706	0,697	0,528	**0,936**
WOM2	0,697	0,619	0,404	0,623	0,682	0,704	0,470	**0,953**
WOM3	0,790	0,648	0,460	0,687	0,713	0,722	0,432	**0,961**

Appendix O: Cronbach's alpha for the IKEAFANS community (group I)

	Cronbachs Alpha
Brand attachment	0,899527
Community Commitment	0,906875
Community Identification	0,807209
Community Satisfaction	0,786429
Degree of influence	0,679385
PSBC	0,930096
Repurchase intention	1,000000
Word of mouth	0,960655

Appendix P: Cronbach's alpha for the IKEAFANS community (group II)

	Cronbachs Alpha
Brand attachment	0,973050
Community Commitment	0,946040
Community Identification	0,912488
Community Satisfaction	0,870734
Degree of influence	0,592179
PSBC	0,979625
Repurchase intention	0,893701
Word of mouth	0,941308

Appendix Q: Composite reliability for the IKEAFANS community (group I)

	Composite Reliability
Brand attachment	0,926315
Community Commitment	0,929235
Community Identification	0,873541
Community Satisfaction	0,860491
Degree of influence	0,756687
PSBC	0,944931
Repurchase intention	1,000000
Word of mouth	0,974078

Appendix R: Composite reliability for the IKEAFANS community (group II)

	Composite Reliability
Brand attachment	0,978923
Community Commitment	0,957057
Community Identification	0,938895
Community Satisfaction	0,909751
Degree of influence	0,747803
PSBC	0,983370
Repurchase intention	0,948545
Word of mouth	0,962386

Appendix S: AVE for the IKEAFANS community (group I)

	AVE
Brand attachment	0,717027
Community Commitment	0,688497
Community Identification	0,634634
Community Satisfaction	0,677998
Degree of influence	0,531566
PSBC	0,741273
Repurchase intention	1,000000
Word of mouth	0,926068

Appendix T: AVE for the IKEAFANS community (group II)

	AVE
Brand attachment	0,902827
Community Commitment	0,788042
Community Identification	0,793862
Community Satisfaction	0,771071
Degree of influence	0,510119
PSBC	0,907924
Repurchase intention	0,902147
Word of mouth	0,895072

Appendix U: Fornell-Larcker criterion for the IKEAFANS community (group I)

	Brand attachment	Community identification	Community satisfaction	Community commitment	Degree of influence	PSBC	Repurchase intention	WOM
Brand attachment	**0,717**							
Community identification	0,178	**0,635**						
Community satisfaction	0,120	0,257	**0,678**					
Community commitment	0,197	0,610	0,257	**0,689**				
Degree of influence	0,165	0,165	0,358	0,292	**0,532**			
PSBC	0,629	0,303	0,183	0,428	0,227	**0,741**		
Repurchase intention	0,072	0,158	0,028	0,220	0,243	0,132	**1,000**	
WOM	0,358	0,267	0,024	0,193	0,087	0,504	0,524	**0,926**

(Squared latent variable correlations = normal numbers / AVE = bold numbers)

Appendix V: Fornell-Larcker criterion for the IKEAFANS community (group II)

	Brand attachment	Community identification	Community satisfaction	Community commitment	Degree of influence	PSBC	Repurchase intention	WOM
Brand attachment	**0,903**							
Community identification	0,552	**0,794**						
Community satisfaction	0,303	0,348	**0,771**					
Community commitment	0,647	0,611	0,461	**0,788**				
Degree of influence	0,441	0,454	0,554	0,566	**0,510**			
PSBC	0,749	0,560	0,253	0,370	0,411	**0,908**		
Repurchase intention	0,483	0,311	0,389	0,472	0,253	0,259	**0,902**	
WOM	0,716	0,584	0,375	0,688	0,474	0,534	0,606	**0,895**

(Squared latent variable correlations = normal numbers / AVE = bold numbers)

Appendix W: Cross loadings and outer loadings for the IKEAFANS community (group I)

	Brand attachment	Community commitment	Community identification	Community satisfaction	Degree of influence	PSBC	Repurchase intention	Word of mouth
ATTACH1	**0,838**	0,242	0,340	0,171	0,346	0,564	0,068	0,340
ATTACH2	**0,911**	0,337	0,245	0,356	0,376	0,719	0,173	0,466
ATTACH3	**0,702**	0,332	0,168	0,562	0,532	0,669	0,143	0,404
ATTACH4	**0,868**	0,398	0,380	0,129	0,251	0,655	0,446	0,687
ATTACH5	**0,895**	0,520	0,612	0,269	0,253	0,725	0,227	0,555
COMMIT1	0,519	**0,903**	0,693	0,418	0,557	0,630	0,329	0,350
COMMIT2	0,600	**0,683**	0,419	0,524	0,420	0,624	0,272	0,333
COMMIT3	0,194	**0,745**	0,622	0,455	0,539	0,588	0,433	0,525
COMMIT4	0,281	**0,898**	0,641	0,477	0,354	0,549	0,357	0,365
COMMIT5	0,251	**0,860**	0,762	0,229	0,346	0,431	0,530	0,375
COMMIT6	0,328	**0,863**	0,719	0,435	0,453	0,434	0,416	0,260
DOI1	0,453	0,529	0,500	0,447	**0,918**	0,522	0,515	0,437
DOI2	0,147	-0,034	0,160	0,600	**0,406**	0,029	-0,048	-0,177
DOI3	0,181	0,334	0,108	0,655	**0,765**	0,191	0,253	-0,069
IDENT1	0,350	0,803	**0,859**	0,439	0,318	0,504	0,454	0,478
IDENT2	0,304	0,509	**0,695**	0,498	0,322	0,479	0,307	0,430
IDENT3	0,239	0,581	**0,808**	0,480	0,289	0,333	0,060	0,234
IDENT4	0,448	0,534	**0,814**	0,186	0,370	0,414	0,391	0,479
PSBC1	0,698	0,401	0,371	0,438	0,443	**0,889**	0,243	0,591
PSBC2	0,556	0,573	0,478	0,555	0,604	**0,824**	0,452	0,579
PSBC3	0,638	0,750	0,655	0,183	0,353	**0,890**	0,372	0,644
PSBC4	0,492	0,552	0,543	0,461	0,487	**0,841**	0,289	0,579
PSBC5	0,797	0,496	0,361	0,345	0,351	**0,809**	0,223	0,554
PSBC6	0,853	0,585	0,436	0,294	0,239	**0,906**	0,308	0,699
RI1	0,269	0,469	0,397	0,166	0,493	0,363	**1,000**	0,723
RI2	0,269	0,469	0,397	0,166	0,493	0,363	**1,000**	0,723
SATIS1	0,270	0,467	0,506	**0,884**	0,454	0,267	0,110	0,104
SATIS2	0,364	0,495	0,455	**0,920**	0,591	0,521	0,214	0,211
SATIS3	0,162	0,109	0,119	**0,636**	0,515	0,165	-0,021	-0,065
WOM1	0,473	0,368	0,426	0,190	0,313	0,604	0,776	**0,954**
WOM2	0,539	0,468	0,546	0,161	0,299	0,713	0,708	**0,968**
WOM3	0,676	0,425	0,507	0,112	0,250	0,714	0,631	**0,964**

Appendix X: Cross loadings and outer loadings for the IKEAFANS community (group II)

	Brand attachment	Community commitment	Community identification	Community satisfaction	Degree of influence	PSBC	Repurchase intention	Word of mouth
ATTACH1	**0,9257**	0,678	0,744	0,445	0,602	0,9250	0,524	0,776
ATTACH2	**0,948**	0,819	0,741	0,648	0,712	0,757	0,737	0,836
ATTACH3	**0,957**	0,799	0,755	0,551	0,704	0,851	0,636	0,812
ATTACH4	**0,962**	0,731	0,671	0,456	0,567	0,836	0,635	0,778
ATTACH5	**0,955**	0,786	0,619	0,502	0,563	0,751	0,757	0,811
COMMIT1	0,769	**0,866**	0,642	0,444	0,763	0,619	0,539	0,810
COMMIT2	0,623	**0,908**	0,771	0,603	0,711	0,439	0,605	0,671
COMMIT3	0,676	**0,914**	0,688	0,667	0,627	0,520	0,570	0,699
COMMIT4	0,666	**0,896**	0,512	0,527	0,618	0,421	0,648	0,746
COMMIT5	0,681	**0,837**	0,692	0,873	0,674	0,518	0,700	0,693
COMMIT6	0,841	**0,899**	0,819	0,497	0,605	0,682	0,597	0,787
DOI1	0,738	0,774	0,621	0,474	**0,882**	0,674	0,527	0,740
DOI2	0,197	0,201	0,407	0,633	**0,489**	0,405	0,299	0,364
DOI3	0,250	0,411	0,394	0,745	**0,714**	0,269	0,177	0,230
IDENT1	0,665	0,777	**0,950**	0,465	0,597	0,640	0,501	0,703
IDENT2	0,582	0,555	**0,906**	0,414	0,471	0,652	0,388	0,649
IDENT3	0,744	0,633	**0,876**	0,393	0,524	0,786	0,553	0,689
IDENT4	0,640	0,797	**0,826**	0,818	0,791	0,578	0,526	0,671
PSBC1	0,843	0,566	0,668	0,461	0,556	**0,933**	0,459	0,672
PSBC2	0,746	0,482	0,601	0,500	0,658	**0,916**	0,392	0,665
PSBC3	0,810	0,573	0,738	0,491	0,626	**0,980**	0,462	0,688
PSBC4	0,856	0,651	0,803	0,474	0,623	**0,957**	0,521	0,737
PSBC5	0,846	0,604	0,670	0,435	0,695	**0,950**	0,505	0,699
PSBC6	0,837	0,583	0,773	0,514	0,642	**0,977**	0,551	0,710
RI1	0,740	0,741	0,589	0,584	0,517	0,549	**0,964**	0,846
RI2	0,554	0,537	0,453	0,606	0,427	0,397	**0,935**	0,599
SATIS1	0,233	0,347	0,291	**0,821**	0,595	0,237	0,218	0,270
SATIS2	0,708	0,819	0,719	**0,925**	0,757	0,622	0,736	0,722
SATIS3	0,257	0,382	0,325	**0,884**	0,525	0,267	0,479	0,419
WOM1	0,811	0,827	0,739	0,595	0,669	0,703	0,713	**0,928**
WOM2	0,760	0,748	0,675	0,605	0,587	0,668	0,711	**0,949**
WOM3	0,826	0,776	0,749	0,539	0,693	0,700	0,782	**0,960**