

Carla Sofia Carvalho Martins

***Value co-creation through online communities in
the context of new social media sites***

Dissertation submitted to Faculdade de Engenharia da Universidade do Porto to
obtain the Doctoral Degree in Industrial Engineering and Management

Advisors:

Professor Lia Martins de Lima Patrício

Professor José Manuel Miguez

Faculdade de Engenharia da Universidade do Porto

2014

Thesis co-financed by European Union funds



ABSTRACT

For some time now, online communities are receiving the attention of companies and researchers for their value creation potential for both consumers and firms. Recognizing the importance of online communities for business, both practitioners and business researchers have written much about it in the last fifteen years. However, despite the profusion of literature on the subject, there is a notorious lack of one piece of work that extensively explain all the processes companies can undertake in order to create value with consumers through online communities. Thus, in its first phase, this dissertation attempts to fulfill this need through a general qualitative approach which systematizes a vast amount of primary and secondary data, giving rise to a taxonomy. As 'online community' is a wide concept whose definition is far from consensus, we start by adopting mid-range work definition: a group of people with a common or complementary goal or interest, who join in a common virtual space with potential to support social exchange, following a given set of rules. The study enabled the identification and exhaustive characterization of four major strategies that companies may adopt in order to create value with consumers through online communities: (1) Creating OC-based business models; (2) Creating OCs as supplement of a core business; (3) Establishing close relationships with consumer-run OCs; (4) Using the services from other companies' revenue-generating OCs.

Throughout the development of this first phase of the dissertation, a new and consequently understudied phenomenon in the field of consumer online communities was identified and named Company Social Network (CSN). The remaining dissertation work is thus entirely devoted to this new phenomenon defined as a group of people (followers, fans, or some other term, according to the website terminology) connected to a company or brand within the boundaries of a social networking site. A mixed method approach, in which a qualitative study is followed by a quantitative study, is used to study the antecedents and consequences of participation in CSNs. In the first study, by interviewing members, it was possible to identify the drivers of participation in CSNs, which proved to be

somehow similar to the factors identified in already studied online and brand communities, however, differently from what happens in those communities, more oriented towards the host company than to the other CSN members. In the second study, based on the results of the first, along with literature review, a conceptual model was built with the aims of assessing: how different factors have impact in the attitudes (satisfaction and identification with the CSN) and participation behaviors (loyalty) of members towards the CSN as well as (2) how attitude and behavior towards CSN influences satisfaction and loyalty to the host-company. The results of this study confirmed that all the previously identified factors really drive loyalty to the CSN. The study also showed that those factors may be divided into factors of satisfaction with the CSN and factors of identification with the CSN, which are different paths to loyalty. Factors of satisfaction are mainly functional and factors of identification are predominantly social. Although the study indicated that only satisfaction with the CSN (and not identification) has a direct impact on satisfaction with the host-company, it also suggested that companies should not disregard any factor. Identification has the potential to improve the levels of engagement with the CSN, increasing the opportunities of value co-creation.

RESUMO

Há já algum tempo que as comunidades online (ou virtuais) são alvo da atenção de empresas e investigadores devido ao seu potencial de criação de valor para consumidores e empresas. Reconhecendo a importância das comunidades online para as empresas, académicos e não académicos têm escrito bastante sobre este tema nos últimos quinze anos. No entanto, apesar da abundância de literatura sobre o assunto, há uma notória falta de um único trabalho que aborde extensivamente todos os processos que as empresas podem levar a cabo para criar valor com os consumidores através destas comunidades. Assim, na primeira fase desta dissertação tenta-se preencher essa lacuna. Através de uma abordagem qualitativa sistematiza-se uma vasta quantidade de dados primários e secundários, criando uma taxonomia integradora. Como "comunidade online" é um conceito amplo, cuja definição está longe de ser consensual, começamos por adotar uma definição operacional de meio-termo: uma comunidade online é um grupo de pessoas com um objetivo ou interesse comum ou complementar, que se juntam em um espaço virtual comum com potencial para sustentar interação social, seguindo um determinado conjunto de regras. O estudo permitiu a identificação e caracterização exaustiva dos quatro principais estratégias que as empresas podem adotar para criar valor com os consumidores através de comunidades online : (1) A criação de modelos de negócios baseados no conceito de comunidade online , (2) Criação de comunidades online como suplemento de um modelo de negócio, (3) Estabelecimento de relações próximas com comunidades criadas e geridas pelos consumidores ; (4) Uso dos serviços oferecidos por outras empresas com um modelo de negócio baseado no conceito de comunidade online.

Ao longo do desenvolvimento da primeira fase da dissertação, foi identificado um fenómeno novo e por isso pouco estudado nas área das comunidades online, que foi denominado Company Social Networks (CSN). O restante trabalho de dissertação é, portanto, inteiramente dedicado a este novo fenómeno definido como um grupo de pessoas (seguidores, fãs...) ligado a uma empresa ou marca dentro dos limites de um site de redes sociais . Os antecedentes e consequências da

participação no CSNs foram estudados através de uma metodologia mista, em que um estudo qualitativo é seguido por um estudo quantitativo. No primeiro estudo, através de entrevistas com os membros de CSNs, foi possível identificar os factores de participação em CSNs, que se mostraram em parte semelhantes aos factores identificados em comunidades online e comunidades de marca estudadas anteriormente. No entanto, diferentemente do que acontece nessas comunidades, esses factores referem-se mais à empresa do que aos outros membros da CSN.

No segundo estudo, com base nos resultados do primeiro, conjuntamente com revisão da literatura, foi construído um modelo conceptual com vista a avaliar: (1) como diferentes factores impactam nas atitudes (satisfação e identificação com a CSN) e comportamentos de participação (fidelização) dos membros em relação à CSN e (2) como as atitudes e comportamentos em relação a CSN influencia satisfação e fidelização relativamente à empresa anfitriã. Os resultados deste estudo confirmaram que todos os factores previamente identificados conduzem realmente à fidelização à CSN. O estudo mostra também que esses factores podem ser divididos em factores de satisfação com a CSN e factores de identificação com a comunidade CSN, que são dois caminhos diferentes para a fidelização à CSN. Enquanto os factores de satisfação são, principalmente de cariz funcional, os factores de identificação são predominantemente sociais. Embora o estudo que também que apenas a satisfação com a CSN (e não identificação) têm um impacto direto na satisfação com a empresa anfitriã, também sugere que as empresas não devem ignorar qualquer fator. A identificação com a comunidade tem o potencial de aumentar os níveis de comprometimento com a CSN e assim as oportunidades de co-criação de valor.

ACKNOWLEDGEMENTS

Looking back to the path that led me here, I would like to acknowledge the support from some people who have profoundly influenced me and helped me get to this point,

First and foremost, I would like to express my gratitude to my supervisor, Doctor Lia Patricio, whose expertise, understanding, and patience, even in the most difficult moments, were crucial in making me persist in this task. Lia is an excellent listener, discussant and source of ideas. At the same time, she is always active in the role of “caring for her students”. Without her constant encouragement I certainly would not have achieved this position. A very special thanks goes also to Doctor Jose Miguez, that did not let me forget my background in Psychology, which so often useful in the development of this research work in an Engineering School.

I am also grateful to Sonae-Continente company for the availability and support to most of the undertaken research activities. In this regard, I would like to specially thank to Paulo Magalhães, who was the person who made this research interest emerge within the company in 2007 and showed the interest of working with the University in this area. Still inside Sonae-Continente, I must also acknowledge João Amaral and Miguel Osório for their favorable decisions as well as Norberto Amaral, João Piedade and Alberto Mota, for their help and cooperation in different points in time. Moreover, I must also thank to the online community managers who devoted their time to kindly receive me and share their experience.

I would like to especially thank Andreia, Maria and Teresa, who more than colleagues were best friends with whom I shared the best and worst of this journey. Also, Nelson ,Rui, and Thais, companions of journey, from whom I learned so much.

Finally, I must thank to my family, Mila, my parents, my brother and particularly my two sisters, Claudia and Sara, who closely followed my path and were my most important support.

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION	1
DISSERTATION PURPOSE.....	3
DISSERTATION OUTLINE.....	4
CHAPTER 2: RESEARCH DESIGN	7
PART I: A GENERIC QUALITATIVE APPROACH	7
PART II: MIXED-METHOD APPROACH	8
CHAPTER 3: VALUE CREATION THROUGH ONLINE COMMUNITIES	13
PAPER I	15
VALUE CO-CREATION THROUGH ONLINE COMMUNITIES: A TAXONOMY	17
ABSTRACT	17
1. INTRODUCTION	19
2. CONCEPTUAL FOUNDATIONS	20
3. RESEARCH DESIGN	24
3.1. CASE SELECTION AND DATA COLLECTION	25
3.2. DATA ANALYSIS.....	27
4. RESULTS	28
4.1. CREATING AN OC-BASED BUSINESS MODEL.....	29
4.2. CREATING OCS AS SUPPLEMENT OF A CORE BUSINESS	39
4.3. ESTABLISHING CLOSE RELATIONSHIPS WITH CONSUMER-RUN OCS.....	49
4.4. USING THE SERVICES FROM OTHER COMPANIES' REVENUE-GENERATING OCS.....	51
5. DISCUSSION AND CONCLUSION	53
REFERENCES	56
CHAPTER 4: ANTECEDENTS AND CONSEQUENCES OF PARTICIPATION IN COMPANY SOCIAL NETWORKS	67
PAPER II	69
UNDERSTANDING PARTICIPATION IN COMPANY SOCIAL NETWORKS	71
ABSTRACT	71

1. INTRODUCTION	73
2. CONCEPTUAL FOUNDATIONS	73
3. RESEARCH DESIGN	81
3.1. EXPLORATORY STUDY	82
3.2. QUALITATIVE STUDY	84
4. RESULTS	86
5. RESEARCH AND MANAGERIAL IMPLICATIONS	95
6. CONCLUSIONS AND FURTHER RESEARCH	97
REFERENCES	99
PAPER III	107
UNDERSTANDING THE DRIVERS OF PARTICIPATION IN COMPANY SOCIAL NETWORKS AND THEIR IMPACT ON SATISFACTION AND LOYALTY TOWARDS THE HOST COMPANY	109
ABSTRACT	109
1. INTRODUCTION	111
2. DEVELOPMENT OF CONCEPTUAL MODEL	113
3. CONCEPTUAL MODEL OPERATIONALIZATION, REFINEMENT AND VALIDATION	122
3.1. DEVELOPMENT OF A PRELIMINARY MEASURE TO ASSESS MEMBER PERCEPTIONS OF CSN ATTRIBUTES.....	122
3.2. FINAL SURVEY ADMINISTRATION.....	124
3.3. EXPLORATORY FACTOR ANALYSIS	125
3.4. CONFIRMATORY FACTOR ANALYSIS.....	127
4. CONCEPTUAL MODEL TESTING AND ANALYSIS OF STRUCTURAL RELATIONSHIPS	131
5. RESEARCH AND MANAGERIAL IMPLICATIONS	137
6. CONCLUSION AND FUTURE RESEARCH	140
REFERENCES	143
CHAPTER 5: OVERALL DISCUSSION AND RESEARCH CONTRIBUTIONS	155
MANAGERIAL IMPLICATIONS.....	160
CHAPTER 6: CONCLUSIONS AND FUTURE WORK	163
REFERENCES	166

Chapter 1: Introduction

The proliferation of computer networks has allowed the emergence of online gatherings in web spaces, which became known as online (or virtual) communities (Rheingold, 1993). With the generalization of both personal computers and the Internet, online communities (OCs) became accessible to millions of people (Wellman et al., 1996) and soon attracted the attention of business. Authors of practitioner-oriented literature (e.g. Armstrong and Hagel, 1995, Timmers, 1998) prophesied a revolution in the ways companies would create value from then on. However, despite the attempts of many entrepreneurs, only a few companies were able to create real value through OCs. It was perhaps too soon. Indeed, although at that time the internet was already strongly established in some countries, it was far from the subsequent generalization. Moreover, despite the existence of some online social tools, like forums and chats, others tools like blogs, wikis or social networking services had still not been created. The internet was much more static so the means for online community (OC) development were significantly more limited.

This thesis started to be developed when the enthusiasm of businesses for OCs was reborn after a period of hangover following the dot-com bubble burst. Terms such *Web 2.0* (O'Reilly, 2007) and *crowdsourcing* (Howe, 2008) had emerged and were attracting the attention of businesses. The rapid increase of bandwidth and the use of Wi-Fi connections happened together with the emergence of several new online social tools, which started to be commonly designated by "social media" – such as blogs, wikis, virtual worlds or tools for social networking, social tagging, social bookmarking and content sharing – frequently combined in multifunctional sites. The web, that had always been 'partly' social, became 'predominantly' social. New patterns of participation and interaction in the web were created.

This socialization of the web produced deep changes in the relationship between companies and customers. Rather than being mere recipients of

information disseminated by marketers, consumers started using the web to express and disseminate their knowledge, experiences and opinions about products (de Valck, Bruggen and Wierenga, 2009). Communication that, in the past, used to be unidirectional – from company to consumer - became a totally interactive dialog among consumers and among consumers and companies (Farquhar & Rowley, 2006; Fisk et al., 2008). Word-of-mouth became a major part of online consumer interactions, particularly within the environment of OCs (Brown et al., 2006). Simultaneously, new business models were enabled. New community-created products and services appeared, revolutionizing the market and people’s consuming habits. These facts raised huge challenges to companies but simultaneously they also created many new opportunities of value creation.

Failure has been frequent (Worthen, 2008, Preece et al., 2004) over time, but several firms were able to realize value through OCs. Much has been written about this subject both by academics and non-academics. The first literature on this issue was practitioner-oriented (e.g. Hagel and Armstrong, 1997, Armstrong and Hagel, 1995, Bressler and Grantham, 2000, McWilliam, 2000) or conceptual (Kozinets, 1999, Barnatt, 1998), but the 2000s were marked by a significant interest of business and marketing academics on the subject, giving rise to a large amount of empirical research on the field. Nevertheless, despite the profusion of both academic and practitioner-oriented literature, at the starting point of this dissertation, we identified a clear lack of integration between all that dispersed research and information, which prevented a broad and straightforward understanding of the processes of company value creation through OCs. First, the concept of ‘OC’ was unclear. Many very distinct phenomena were included in the concept of online community. Moreover, there was not consensus about the definition of ‘online community’. What for some authors were considered as OCs, for other authors could not definitely be called communities. Second, the same exact phenomenon was often differently named by different authors. Third, classifications of OCs, based on several diverse criteria, were profuse, thereby making the understanding of this phenomenon even more complex. Additionally, there was a lack of holistic studies regarding

value creation through OCs: each study tended to be devoted to only one or only few different kinds of OCs and/or ways of value creation. Finally, some specific, especially more recent phenomena were still poorly or not yet studied by academics. These challenges constituted the main motivation for the dissertation research.

Dissertation Purpose

The overall aim of this dissertation was to achieve a wider understanding of the processes of company value creation through OCs. The thesis was guided by two major research questions that emerged in two different points in time. In fact, the second research question derived from the results of the study who aimed to respond to the first research question.

Research Question 1: What are the ways through which companies can create value with consumers through online communities?

This question has resulted from the above mentioned acknowledgement of a fragmentation and lack of integration of the extant academic and non-academic knowledge regarding value-creation through OCs. The answer to the aforementioned question, that constitutes the first part of this dissertation (Paper I), fundamentally entails constructing a taxonomy for systematizing all the disperse information and complementing it with new developments still not reported in extant literature. For feasibility and parsimony reasons, it was decided that this dissertation will only address OCs mainly constituted of consumers, thus leaving out other phenomena such as employee or business-to-business OCs.

The social web is a fast-changing field. As the construction of the taxonomy advanced, it became evident that whereas some OC-related phenomena lost importance, others emerged, so that they are still understudied. Hence, there is a need to more deeply understand their dynamics and how companies may still use them as means of value creation. Among those recently emerged phenomena, the one that most took our attention was the companies'

establishment of their own social networks of consumers within the boundaries of existing social networking sites like Facebook or Twitter. These communities of consumers (followers, fans...), which we called Company Social Networks (CSNs) gave rise to the second key research question.

Research Question 2: For companies who create their own Company Social Networks, how can they co-create value?

This question is unfolded in two sub-questions:

2.1: Which factors drive participation in Company Social Networks?

2.2: How do factors of participation impact on attitudes (satisfaction and identification) and behaviors towards Company Social Networks and satisfaction and loyalty towards the host company?

The answer to the research question 2.1 enabled the identification of the motives of members to participate and the attributes companies need to foster within their CSNs in order to make them valuable for members. The response to the research question 2.2 allowed a better understanding of the influence of each factor identified, namely their relative importance, in the attitudes and behaviors towards CSNs as well as of how these attitudes and behaviors in relation to the CSN mediate the relationship between participation factors and satisfaction and loyalty towards the company. The answers to questions 2.1 and 2.2 constitute the second part of the dissertation which is, thereby, unfolded in two papers. Whereas Paper II strive to identify the factors (or drivers) of participation in CSNs, Paper III tests how those factors affect attitudes and behavior in regard to CSNs and the impact of members' attitudes and behavior regarding CSNs on the creation of value to the business, in this case, translated into satisfaction and loyalty towards the host-company.

Dissertation Outline

So far, this chapter - Chapter 1 - introduced the dissertation research, explaining the main motivations to undertake it, the research questions and the dissertation

general purpose. As a final point, this chapter presents the overall dissertation framework. Chapter 2 outlines the general research design which, following the dissertation rationale, is divided in two major parts, as depicted in figure 1.

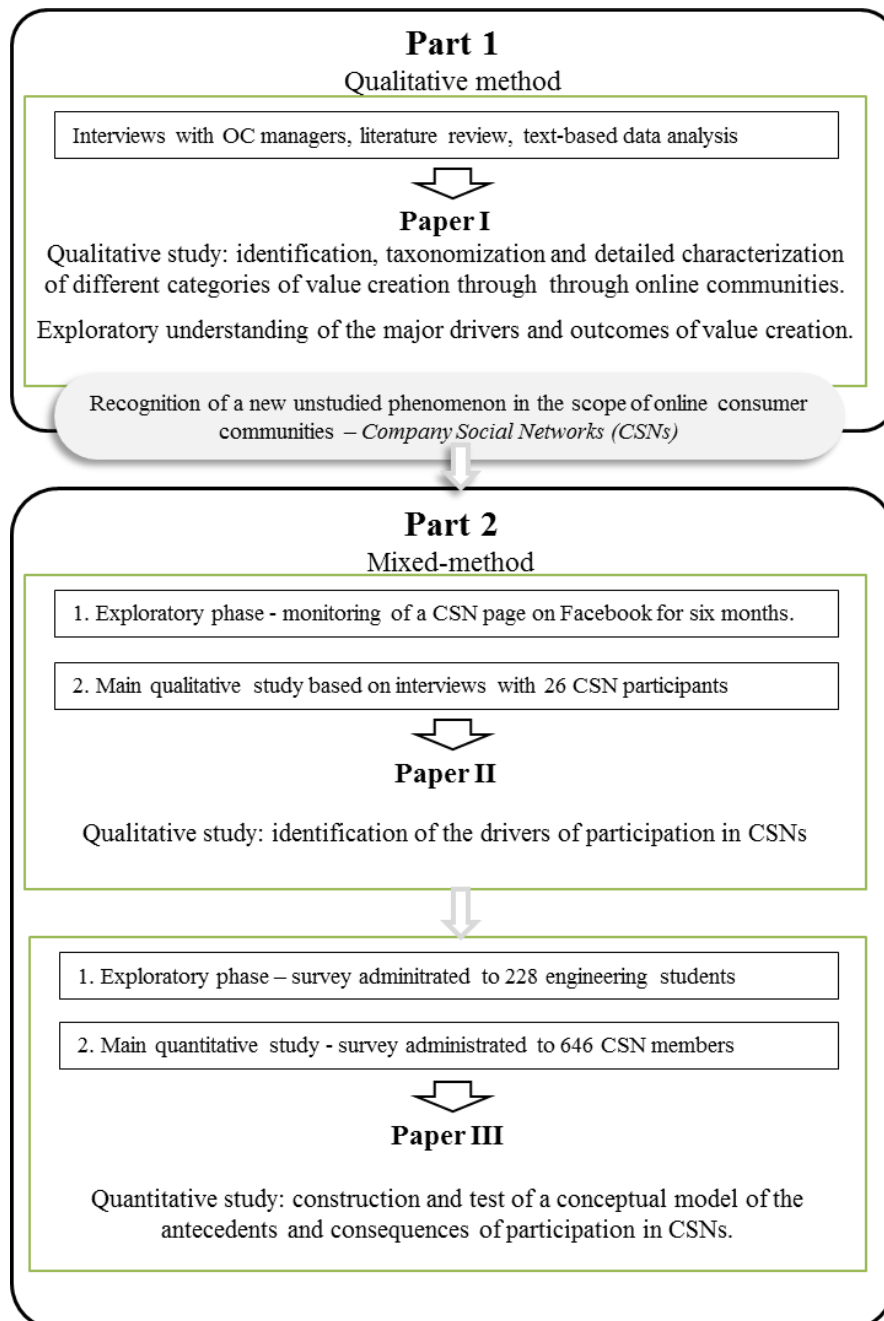


Figure 1: Process employed in the dissertation research

The first one involves a qualitative study whose aim was the identification and taxonomization of the different forms of value creation through OCs. This

taxonomy enabled a clarification of the concept of CSN and an understanding of its different forms. The second part of the research design entails a mixed-method approach (qualitative followed by quantitative), used to attain an in-depth understanding of the novel phenomenon of CSNs. The following chapters constitute the core of the dissertation, enclosing all the three papers. Chapter 3 includes Paper I – *Value Co-creation through Online Communities: a Taxonomy* - and Chapter 4 includes both Paper II – *Understanding Participation in Company Social Networks*, which presents the qualitative study for an in-depth understanding of customer participation in the novel phenomenon of Company Social Networks, and Paper III – *Drivers of Participation in Company Social Networks and Impact on Satisfaction and Loyalty towards the Host-company*, which presents the results of the quantitative study that analyze the impact of participation factors on attitudes and behaviors towards CSN and towards the hosting company. Chapter 5 discusses the overall results and research contributions, taking in consideration the initially established research questions. Implications for business regarding the management of their social web presence, with an emphasis in CSNs, are also presented in this chapter. To finalize, Chapter 6 presents the main conclusions of the thesis, its limitations and directions for future research.

Chapter 2: Research Design

Following the dissertation rationale, methodology is divided in two distinct parts. The first, that intends to answer to the first research question, corresponds to Paper I, where a generic qualitative method is applied. The second includes Paper II and Paper III and follows a mixed-method (qualitative plus quantitative) approach to respond to the second research question (unfolded in research questions 2.1 and 2.2).

Part I: A Generic Qualitative Approach

Qualitative research should be used either to explore areas about which little is known or, as in this case, to get new understandings on areas about which much is known (Strauss and Corbin, 1990). Indeed, online communities as well as their relevance to companies are not new topics in academic literature. However, this qualitative study intends to integrate current academic knowledge and other extant information from other sources and build a novel comprehensive taxonomy of the ways companies are creating value along with consumers through those online gatherings.

Qualitative research generally tends to be open-ended and mostly inductive. However, there are several different qualitative strategies of inquiry (Creswell, 2009). The first part of this thesis follows a basic or generic qualitative approach. Generic qualitative research is not guided by an explicit or established set of philosophic assumptions in the form of one of the known qualitative methodologies (Merriam, 2009), such as phenomenology, grounded theory, ethnography, narrative research or case study (Creswell, 2009). Instead, it combines elements of multiple qualitative methodologies or approaches (Caelli et al., 2008). Two methods of data collection were used: in-depth interviews with managers of Portuguese online communities (with a mainly exploratory nature) and text-based material of different kinds, mostly online. All data were subject to qualitative content analysis, which consists of organizing

large quantities of text into much fewer content categories (Weber, 1990). Content analysis used an integrated approach, i.e. combining deductive and inductive logics, which proved to be the most adequate approach given the existence of literature in the area under study.

Part II: Mixed-method Approach

Answering to the second key research question entailed a mixed-method approach. Mixed methods research is becoming increasingly recognized as the third major research approach or research paradigm (Johnson et al., 2007). This is a very challenging form of research as it requires the researcher to be familiar with both qualitative and quantitative forms of research (Creswell, 2009). There are several typologies for classifying mixed-method strategies used by researchers. One of the extant classification criteria is timing of qualitative and quantitative data collection, whether it will be in phases (sequentially) or gathered at the same time (concurrently). When, as here, data collection is sequential, either the qualitative or the quantitative data can come first (Creswell, 2009). In this particular case, we used what Creswell (2009) calls a *sequential exploratory strategy*, where a first phase of qualitative data collection and analysis is followed by a second phase of quantitative data collection and analysis that builds on the results of the first qualitative phase.

Several reasons may be on the basis of adopting a mixed-method strategy, namely: (1) instrument development, when existing instruments are not adequate or not available; (2) and triangulation (Bryman, 2012, Creswell, 2009, Morgan, 1998). In this research work both reasons apply. On one hand, the qualitative study was used as a way of defining the conceptual domain of factors of participation (Churchill Jr, 1979) that enabled the development of the items to measure the perceptions of members about the CSN. Through that qualitative study, we were able to identify and define the dimensions used by members to assess CSNs and which were expected to affect their attitudes and behaviors towards those CSNs. On the other hand the use of different methods enabled triangulation, which is defined as the use of more than one source of data to the

investigation of a research question in order to enhance confidence in the ensuing findings (Bryman, 2012).

Qualitative Phase: Grounded Theory Approach – Paper II

In the qualitative phase, we use Grounded Theory method, a qualitative approach introduced by Glaser and Strauss in 1967, defined as “*a constant comparative method of qualitative data analysis concerned with generating and plausibly suggesting many categories, properties and hypotheses about general problems*” (Glaser and Strauss, 1967, p. 104). Although Grounded Theory has evolved over time, giving rise to different perspectives, a set of common principles are common to all of them, namely: the constant comparison of data to develop concepts and categories; the gradual abstraction of data from the descriptive level to higher order theoretical categories; the process of writing of theoretical memos which help track the process and provide a sense of reorientation; the inseparability of the process of data collection and interpretation; and the saturation of data which requires the researcher to stay in the field until no new evidence emerges (Goulding, 2002, Rennie, 1998). These tenets, already present in the first formulation of grounded theory method (Glaser and Strauss, 1967), and never denied by any of the authors, were the foundations for this research phase.

Over time, Grounded Theory integrated new elements. Its evolution was primarily marked by the division of Glaser and Strauss that led to the emergence of two distinct perspectives. Strauss and Corbin (1990), his former student, introduced a new terminology and reworked the method by developing a complex process of systematic coding which led Glaser (1992) to accuse them of being too restrictive and of forcing data and concepts into a preconceived mold, ignoring 90% of the original ideas (Goulding, 2002). Even though, Strauss and Corbin (1990) state that those techniques and procedures are not meant to be used rigidly in a step-by-step fashion and stress the need for researchers to be creative and tailor the approach to their own research settings and interests.

Later, a new perspective emerged, initiated by Charmaz (2006), which views Grounded Theory as a constructive process, not purely inductive (as stated in the method original formulation), and incompatible with the

possibility of a neutral observer. Therefore, in the qualitative study, we adopted the fundamental tenets of Grounded Theory, following Strauss and Corbin (1990) guidelines for data collection and analysis, but assuming a contemporary perspective, closer to the constructive. Thus, those guidelines were used in a flexible fashion.

The qualitative study implied two different phases, where different data collection methods were used. The first consisted of an exploratory study that involved the observation of the stream of a CSN page, hosted by a food retail company, followed by a simple content analysis, whose results allowed a preliminary understanding of the phenomenon and supported the construction of an interview protocol for the main study. The main study entailed two focus groups with a total of 11 people and 15 in-depth interviews to members of the same CSN used in the exploratory study, which were recorded and then literally transcribed. The analysis, which followed the mentioned Grounded Theory principles, was supported by the software NVivo and contributed for articulating the meaning and better understanding of the drivers of participation in CSNs.

Quantitative Phase: Survey Research Approach – Paper III

Using the results of the qualitative study along with literature review that was carried out during and after that study, we have developed a conceptual model to evaluate the impact of the previously identified factors on attitudes and behaviors regarding the CSN as well as the impact of these on satisfaction and loyalty towards the host-company. The conceptual model structure was based on the principles of multi-attribute attitude models (Fishbein and Ajzen, 1975), which states that a person's attitude toward an object is mostly determined by the subjective evaluations of the attributes associated with the object and by the strength of these associations (Fishbein and Ajzen, 1975). Moreover, according to this theory, attitudes are good predictors of behavior towards the object of the attitude.

Following this reasoning, the developed conceptual model hypothesized that the perceptions about the attributes lead to attitudinal responses that will translate into behavioral intentions. As one of the main objectives of this study

was to understand CSNs' value creation potential, another layer was added to the model hypothesizing the influence of attitudes and behaviors towards CSNs on satisfaction and loyalty towards the host company.

The conceptual model was tested through a survey-based study. The survey questionnaire included three distinct parts. The first assessed members' perceptions of the CSN; the second evaluated members' attitudinal and behavioral responses; and finally, the third collected socio-demographic data. Attitudinal and behavioral responses, for being well studied both in the field of Marketing and in the field of online and brand communities research, were measured through previously validated scales, adapted for this case. The lack of validated scales to assess members' perceptions about CSNs, along with the inadequacy of those used in similar contexts, due to CSN novelty and specificity, led us to develop a new scale.

The methodology followed standard procedures suggested in scale development related literature (DeVellis, 2012, Churchill Jr, 1979, Gerbing and Anderson, 1988, Parasuraman et al., 2005). The items of the first version were generated from the results of the previous qualitative study. This version was subject to two pilot tests: first, all the items were discussed with members of the retailer's departments of Marketing and Innovation, and with a group of students of a Master in Service Engineering and Management. Later an already shorter version was administered to a sample of 218 engineering students. The resulting data enabled a crude exploratory factor analysis (EFA) that suggested the elimination of some items. Some questions' wording was also refined to improve the final survey, which was administered to a large CSN. The final survey yielded a total of 646 valid responses. The items concerning members' perceptions about CSNs were subject to EFA and confirmatory factor analysis (CFA), enabling the achievement of the final version of the conceptual model. This model was then tested through Structural Equation Modeling, using the software Nvivo.

In summary, this dissertation research used a multifaceted method, following two distinct kinds of approaches - quantitative and qualitative, and

taking advantage of multiple methods of data collection and analysis. The first phase is exclusively qualitative and mainly centered in the analysis of text-based data. The second phase is characterized by a multi-method approach, in which a qualitative study (using Grounded Theory approach), allowed the creation of solid bases for the subsequent quantitative study (through survey research), thus enabling to obtain of more comprehensive and rigorous results.

Chapter 3: Value Creation through Online Communities

Paper I

Value Co-creation through Online Communities: a Taxonomy

Abstract

Companies are using online communities (OCs) as a mean of value creation for some time. Over time, much has been written both by academics and non-academics about this subject. However, there is a need for a more systematic understanding of the processes of value creation through these online communities. First, extant literature is scattered by several sources and uses different terminologies. Second, the social web field is in constant change and evolution.

Through a generic qualitative study, which entailed an iterative process between literature review, data collection and data analysis, a taxonomy was built. We have identified four main distinct processes of value creation with consumers through online communities.

The first way of value creation consists of developing online community-based business models, where value is translated into direct revenue. The second involves creating consumer communities as a supplement of an existing business in order to influence consumption processes and to involve consumers in co-production. With similar objectives, the third entails connecting with already existing consumer-run online communities. Finally, the fourth involves taking advantage of the online communities created by other companies. Each of these categories is then describe and decomposed into more specific processes. We finish by presenting research and managerial implications of this study.

Keywords—online community; consumer community; brand community; value creation; social web

1. Introduction

With the advent of computer networks, social relationships became much less dependent on physical location, enabling the emergence of online social collectives, generally referred to as online (or virtual) communities (hereafter referred to as OCs). As a result of the generalization of personal computers and the Internet, OCs became widespread in the 1990s (Wellman et al., 1996), drawing the attention of business practitioners. At that time, building internet communities had been hailed by some e-business entrepreneurs (Hagel and Armstrong, 1997, Timmers, 1998, Cothrel and Williams, 1999) as one of the major strategic innovations of the new economy. As a result, many companies tried to build and foster OCs in several different forms. However, most were never able to create value (Preece et al., 2003) and only few survived the dotcom bubble.

The enthusiasm about the phenomenon decreased until the mid-2000s, when the boom of new online social tools, such as blogs, wikis and social networking services, gave new impetus to this question, by enabling new types of OCs and making them ubiquitous. Companies want to create value by taking advantage of the new possibilities of contact with consumers and synergies created by the users of these communities (Kaplan and Haenlein, 2010, Berthon et al., 2012), but they do not know what are the best ways to do it.

Despite the existence of a significant amount of literature on value creation through OCs, this is very scattered and lacks integration. Moreover, most information is very specific, i.e., focused on a given type of OC and/or on only one kind of actor in value creation (either the company or the consumer). The lack of consensus about 'online community' (OC) definition along with the profusion of related vocabulary makes the task of integrating available information even harder. At the same time, the developments in this field have been plentiful and fast. Thus, there is a need for a more integrated understanding of the phenomenon of value creation through OCs. In response to this challenge, a taxonomy was developed using a qualitative approach which included an extensive

literature review, in order to systematize the different possible strategies companies are using or can use to create that value.

2. Conceptual Foundations

Online communities

The diverse phenomena generally included in the concept of 'online community' and the multidisciplinary approaches to their study make the definition of OC far from a consensus. On one hand, some business practitioners (e.g. Williams and Cothrel, 2000, Hagel and Armstrong, 1997) assume a very broad view in which any social software may be considered as an OC, disregarding the needed social interactions to build a community. In contrast, the definitions originating from the social sciences (e.g. Rheingold, 1993, Blanchard, 2008, Etzioni and Etzioni, 1999, Erickson, 1997) tend to be narrower, holding that OCs only exist when specific conditions (Preece, 2001), such as a *web of affect-laden relationships, shared culture* (Etzioni and Etzioni, 1999) and a *sense of community* (Blanchard, 2008) are met. In this study, we adopt a mid-way definition of OC that we deem more appropriate in the scope of business-oriented studies. Supported by a set of definitions presented in the literature (Preece, 2001, Leimeister and Krcmar, 2004), the following operational definition was developed: *an online community is a group of people with a common or complementary goal or interest, who join in a common virtual space (or in common virtual spaces) with potential to support social exchange, following a given set of rules.*

According to our definition, OC is not a synonym of online social platform. Although these terms are often interchangeably used, we consider that the platform is just the community's technical component. An OC additionally entails both people and rules of social exchange (Preece, 2001). This definition allows that the boundaries of OCs may be established in distinct ways. On one hand, boundaries may be defined by the limits of the support platform. Therefore, in these OCs, community members are essentially platform registered users. In these cases, the

common interest may be very vague and wide (such as socializing), and each member may have a direct social relationship with a small number of members of that OC. For instance, all the members registered on Facebook (www.facebook.com) compose a single community, the Facebook community. On the other hand, boundaries can be mainly defined by a specific common interest (e.g. admiration for a brand). Members of the community may gather either in only one or simultaneously in different platforms, united by their common interest. Many times these smaller communities are created inside a broader community or even inside several at the same time. For example, a group of fans of a TV show may develop its own OC within Facebook, Pinterest (www.pinterest.com) or YouTube at the same time.

Online community platforms

Online platforms are the technical component of OCs. In the past, social platforms typically were more simple, including only a single or a small number of social tools from among the few existing (mainly forums and chats), in such a way that it was, then, common to classify OCs according to their supporting platforms (e.g. Preece, 2001). For instance, The Well (www.well.com), one of the oldest famous OCs started in 1984 in California, was essentially forum-based. The 2000s were marked by the emergence of many new social tools on the web, such as blogs, wikis, or social network services. Table 1 lists the most used online social tools.

In this context, the most preeminent modern social platforms for OC creation changed greatly. First, they became multi-functional, enclosing a combination of many distinct social tools, although, one tool tends to prevail over the others, assigning identity to the community. For instance, on YouTube, 'video sharing' is the key social tool. Other recent trend is the presence of social network services in most large social platforms either as primary or as secondary tools. YouTube is an example of that. Besides the video sharing tools, it also includes a social network service, through which users can subscribe YouTube channels being thereafter abreast of all their updates. Besides YouTube, Digg (digg.com) and Flickr

(www.flickr.com) are also examples of content sharing platforms which enclose social networking services.

Table 1: Main online social tools

Social Tool	Definition
Mailing list server	An application that handles subscription requests for a mailing list and distributes new messages, newsletters, or other postings from the list's members to the entire list of subscribers as they occur or are scheduled.
Online Chat	Web-based application that allows synchronous, direct, text-based and/or video-based communication between users (one-on-one chat or one-to-many) in a multi-user environment.
Online Bulletin/message board or forum	Web-based application that provides a medium for ongoing online discussion in the form of posted messages. A discussion forum is hierarchical: a forum can contain a number of sub-forums, each of which may have several topics. Within a forum's topic, each new discussion started is called a thread, and can be replied to by as many people as so wish.
Virtual worlds	A computer-based simulated persistent environment through which a great number of users can interact with each other in real-time and can use and create objects (Bishop, 2009). Interactions may have different natures such as socialization, cooperation and competition.
Wiki	Website (or part of a website) that allows users to freely and collaboratively create and edit web page content using any web browser. Wikis use a quick and easy syntax to allow users to apply formatting to text and create links between pages.
Blog	Website (or part of a website) maintained by an individual or group that allows discrete entries, called "posts", typically displayed in reverse chronological order so the most recent post appears first. Although text predominates, graphics and even video are posted on many blogs. Generally, readers can comment and share blog posts.
Content sharing services	Website (or part of a website) where participants may share graphical, photographic, audio or audiovisual content. Generally, the audience is allowed to comment, share and rate content.
Social network services	Web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view their list of connections and those made by others within the system. (Boyd and Ellison, 2007).
Social bookmarking	Web-based services that allow individuals to create personal collections of bookmarks and instantly share their bookmarks. Bookmarks appear to others according to their popularity, which is calculated as the total number of times they has been bookmarked by users.
Social tagging	Web-based services that allow individuals to classify online resources (photographs, URLs, podcasts, music, videos, etc...) using informally assigned, user-defined keywords, called "tags". The emergent dataset arising from all the participants' tags and resources is commonly referred to as a 'folksonomy'.
Social reviewing	Web-based services which allow individuals to judge pieces of information, content, products, services or people. The crowd's judgments are often used to organize, filter and rank vast quantities of information (Howe, 2008)

Value creation

Value creation is a central issue in the service, marketing and management literature (e.g. Vargo and Lusch, 2004, Bowman and Ambrosini, 2000, Lepak et al., 2007). There can be two sides to value creation. On one hand, the value created for the customer, and on the other hand, the value created for the firm (Grönroos and Helle, 2010). Whereas from the firm's point of view, value has to do with profit, value for customers is 'value-in-use'. Traditionally, the company

was seen as the unique value creator. Value for customers was seen as embedded in products that were outputs of firms' production processes. The value of the good was represented by the market price or what the consumer was willing to pay (the 'value-in-exchange'). According to this view, the role of customers was to 'use up' or 'destroy' value created by the firm. This view started to be recently challenged, giving rise to the Service-Dominant (S-D) Logic, as opposed to the Goods-Dominant (G-D) Logic. S-D logic asserts that there is no value until an offering is used and this is true not only to services but also to goods because goods are service-delivery vehicles. Companies propose value in the market based on their resources, skills and knowledge but value is realized in the consumer sphere (Grönroos, 2008), through the application of their resources in their everyday practices (Vargo and Lusch, 2004, Vargo et al., 2008). In this context, value is 'value in use' (Vargo and Lusch, 2004, Woodruff and Flint, 2006). Value-in-use implies that the customer controls value creation through usage, by means of physical, mental, or possessive activities, practices, and experiences, in multiple individual and social contexts. The firm controls the production process, i.e. produces and delivers resources and processes that represent potential value- in-use for the customer, but the customer is the one who constructs and experiences value by integrating resources, processes and outcomes. This means that the provider is mainly a facilitator of value (Grönroos, 2008).

In the light of the S-D Logic, value creation for the company and value created for the customer cannot be seen apart. If customers cannot realize value out of a good or a service through use, they will not be prepared to pay the price for this resource, but instead demand a lower price or even stop buying it at all. This means that the traditional notion of value-in-exchange is a function of value-in-use. Thus, value-in-use over time is a prerequisite for value created for the supplier company. If enough value is not created, revenues will decrease (Grönroos and Helle, 2010). Grönroos and Voima (2013) establish the existence of three value creation spheres: (1) The provider sphere, controlled by the company, where the process of production (design, development, manufacturing, delivery, back-office, and front-office processes) takes place,

which provides potential value (in use) for customer; (2) The joint sphere, where the customer is in charge of value creation, but the provider may have the opportunity to influence customers' value creation process through a dialogical process of direct interactions. These interactions can take two different forms. The first consists of company getting in the customers' spheres by directly engaging with them during their consumption processes. The second involves inviting customers for co-production; (3) The customer sphere, closed to the provider, where the customer creates value independently. The consumer only interacts with resources obtained from the firm but not with the firm's processes.

As this study takes the perspective of companies, when we refer to value creation, we refer to processes which take place either in the company or in the joint spheres.

In summary, although OC-related research has been to a large extent devoted to studying the value of OCs both for companies and consumers, this has never been carried out in a holistic and systematic way. Extant research is extremely scattered, addressing several different phenomena (all put under the umbrella of the concept of 'online community') and from distinctive perspectives. Simultaneously, as this is a fast changing field, new developments are still underexplored by researchers.

3. Research Design

Given the importance of the emergent online community phenomenon and the lack of understanding of how it can create value for companies and their customers, the objective of this study was to answer to the following research question:

R.Q: Generally, what are the ways through which companies can create value with consumers through OCs?

This question assumes a company's perspective, i.e. we explore the strategies adopted by companies in order to create value for themselves. However, as we stated above, no company is able to create value for itself if value is not created for consumers. Therefore, for each company strategy, we explore not only the value created for the company but also the value 'co-created' with and for consumers.

This study followed a generic qualitative approach (Merriam, 2009). Qualitative research is used not only to explore understudied areas but also to study areas about which much is known with the objective of getting new understandings about it (Strauss and Corbin, 1990). Indeed, OCs as well as their relevance to companies are not new topics in scientific literature. However, this study systematizes extant information through the construction of a taxonomy that enables a more integrated understanding of the phenomena of company value creation through OCs. In this section, we detail the research procedures, namely case selection, data gathering and data analysis.

3.1. Case selection and data collection

Following the tenets of qualitative research concerning sampling, our primary goal was to ensure that we had sufficient number and variability of cases. Thus, we used theoretical sampling, which is a purposive, non-probability form of sampling where the researcher does not seek to select cases on a random basis. The objective is to ensure that the sampled cases are relevant to understand the phenomenon under study (Bryman, 2008). We were interested in any case in which companies created or were creating value with consumers through OCs, which may or may not entail the creation and development of an OC from scratch. In line with this, we excluded all the cases where the organization involved is non-profit (e.g. Wikipedia) and where the OC involved was not predominantly composed of individual consumers, such as B2B or employee OCs. In order to obtain such a sample we undertook a multiple-search strategy.

We carried interviews with the managers of seven different Portuguese OCs which revealed their personal points of view about value creation in the scope of the OCs they manage (see Appendix A). We tried to ensure the diversity

of communities included. Four were communities anchored in service companies/brands. The remaining three were independent from other brands. Two of them had profit purposes.

Interviews, which were all audio-recorded and literally transcribed, were the source of only a small part of data for analysis, having a mainly exploratory purpose. Text-based material constituted the main source of data. Given that we were looking at a worldwide web-based phenomenon, websites, such as companies' and OCs' official sites as well as specialized websites, were the most important sources. We have also used both academic and non-academic literature as secondary source of data, which is common in qualitative research (Strauss and Corbin, 1990).

Because of the great profusion of relevant data on the web, it was necessary to establish a starting point. Hence, before starting the search for cases on the web, we started looking for relevant cases in business literature about both OCs and closely related concepts, such as *social web*, *web 2.0*, *crowdsourcing* and brand communities. The first cases were selected both from academic papers (especially case studies) and from practitioner oriented literature (books and articles). Cases from these sources were included in the sample whenever we found them pertinent to answer the main research question. After reading the sources where the cases were found, other sources on the web were used to get deeper information about those cases. We visited the websites of the OCs and of the companies involved and reviewed them, by reading mission statements, FAQs, "About Us" or equivalent pages. Google Search (google.com) and Wikipedia (wikipedia.com) were also privileged tools to get more information. Some other websites, devoted to business, social media, marketing and internet (mainly found through Google search), have been particularly useful. When reading about already selected cases, other cases were often mentioned. Therefore, whenever relevant to answer the main research question, they were also included in the sample. As a complementary source, we also considered some cases we came across in our everyday readings. Overall, 91 communities (see Appendix A) were studied and notes

were taken for each case. The collection was guided by a protocol with the following three questions:

- 1) What are the actions/activities/events carried out by the company in order to create value for itself through OCs?
- 2) What kind of value is created for the company? What kind of value is created for the consumer?
- 3) What was/is the role of consumer in value co-creation?

According to a qualitative research approach, the number and kind of cases to be included in the sample was not defined a priori. It was guided by the intermediate results of data analysis that started immediately after the first data was collected. Therefore, the selection of new cases was purposefully carried out in order to ensure that they contributed to generate new categories or densify the existing ones (Strauss and Corbin, 1990). These sampling procedures aimed to ensure that the study covered all relevant sources of variability, thus offering a meaningful portrait of company value creation with consumers through OCs.

3.2. Data Analysis

We used qualitative content analysis to examine data, which is a method for interpretation of text data through a systematic process of identification of themes and patterns (Hsieh and Shannon, 2005), whose aim is to attain a comprehensive description of a phenomenon. In this particular study, the outcome of the analysis is a set of concepts or categories organized into a taxonomy (Elo and Kyngäs, 2008, Bradley et al., 2007).

Qualitative content analysis may be either predominantly inductive, mostly deductive, or may have an integrated approach (Bradley et al., 2007). As the question of company value creation in the context of OCs had already been addressed by academics and non-academic authors in the last twenty years, it was considered that data analysis should not disregard already built taxonomies (e.g. Armstrong and Hagel, 1995, Hanson, 2000, Franz and Wolkingner, 2003), and should follow a combination of deductive and inductive development and

organization of codes. The first categories were in reality taken from extant literature (deductive logic). When any information about a case could not be coded in any of the predetermined categories, new categories emerged (inductive logic). Through an iterative process that involved alternate phases of data collection, theory reading and content analysis, categories were determined, defined and organized in different levels to form the taxonomy. Data analysis only finished when theoretical saturation was achieved, i.e., when no new concepts emerged (Strauss and Corbin, 1990).

4. Results

Through primary data analysis combined with literature review, we were able to organize the ways through which companies create value through OCs into four different types of practices, which result from two crossing axis (see figure 1).

(1) The first axis regards to the ownership of the OC involved in the process of value creation. Companies can either create their own communities or take advantage of existing ones.

(2) The second axis respects to the type of OC involved in terms of revenue-generation. An OC may be either revenue-generating or non-revenue generating. In this context, the four major practices may be taxonomized as follows:

4.1. Creating OC-based business models – the core offering of the company is platform provision and maintenance; value created for the company through OCs is direct revenue.

4.2. Creating OCs as supplement of a core business – OC is just a supplement of a business model; value created for the company through OCs is derived from the processes of interaction and communication with and between consumers within the company-hosted OC.

4.3. Establishing close relationships with consumer-run OCs - value created for the company through OCs is derived from the processes of interaction with and between consumers that set up and run their own non-profit OCs.

4.4. Using the services from other companies' revenue-generating OCs - value created for the company derived from the processes of interaction with and between consumers that are participating in other companies' for-profit OCs.

	Creating new OCs	Taking advantage of existing OCs
Revenue Generating	4.1. Creating an OC-based Business Model	4.4. Using the services from other companies' revenue-generating OCs
Non - Revenue Generating	4.2. Creating OCs as a supplement of a core business	4.3. Establishing close relationships with consumer-run OCs

Figure 1: Taxonomy representing the ways of company value creation with consumers through online communities

4.1. Creating an OC-based business model

Adopting an OC-based business model means that value created for the company is directly translated into direct revenue, derived from transaction, subscription and advertising fees. Companies are mostly community enablers - their core offerings mainly consist of provision of web-based social platforms with the potential to aggregate people and foster interaction, sharing and exchange (see table 2). Among OC-based business models, two main sub-types could be identified through data analysis:

(1) The first sub-type of OC-based business models consists of offering online software that enables people and organizations to create their own social sites (Kim et al., 2010) and eventually develop and maintain their own OCs. For instance, Blogger (blogger.com) and WordPress (wordpress.com) enable the creation of blogs; Forumotion (forumotion.com) allows the creation of forums; Wikispaces (www.wikispaces.com) and Wikia (www.wikia.com) are platforms for wiki construction; and Ning (www.ning.com) is a software for social network development. In these cases, the company is a platform provider but cannot be called the community manager. Customers have full power to decide what kind of community they want to develop with the support of the social platform. Each OC

developed within a platform is, generally, isolated from other OCs supported by the same platform.

Table 2: Creating OC-based business models

	Role of company	Value for the company	Role of consumers	Value for consumers
1. Software Provision	Platform provider and maintainer	Direct revenue: mainly subscription fees	Platform users Members of OCs created by the own consumers or by other companies.	Improved communication
e.g. Ning				
2. Community Development	Platform provide and maintainer Community manager and rule setter	Direct revenue	Platform users Community members	
- Commerce-based OC e.g. Ebay	Connector Mediator, Broker	Mostly transaction and subscription fees	Buyers, sellers	Monetary gain Access to a larger variety of products and services often at lower prices.
- Swapping OC e.g. Home Exchange	Connector	Mostly subscription fees	Swappers	Access to useful products and services for free.
- Gaming OC e.g. WOW	Connector	Mostly subscription fees	Players	Entertainment (hedonic benefits)
- Relationship OC e.g. LinkedIn	Connector	Advertising and subscription fees	Socializers	Development/maintenance of social relationships Self-presentation (social benefits)
- Sharing OC e.g.	Aggregator, Integrator	Advertising and subscription fees	Content contributors and content seekers	Reputation gain Entertainment Information

(2) The second sub-type of OC-based business models consists of providing a single social sites for community development. In this case, all platform users are members of the same community, although (in large OCs), they often organize themselves, forming multiple smaller and more strongly bound communities within the overall community. The company is not only the platform provider but also the key community manager, with influence on the definition of the community objectives and the direction it should take over time. To understand these differences we can compare Ning (www.ning.com) with Facebook or Wikia (www.wiki.com) with Wikipedia (www.wikipedia.org). Whereas Ning supports several isolated social networks, Facebook is a single social network composed of a huge number of interconnected individuals and groups. Whereas Wikia may support multiple OCs, Wikipedia is a giant community of content producers, all working for the same objective.

Relying on data analysis, and supported by the literature (e.g. Spaulding, 2010, Hagel and Armstrong, 1997, Hinds and Lee, 2008, Brandtzaeg and Heim, 2009), we also developed a sub-classification of OC-based business models according to their type of revenue-generation. Our results corroborate literature, confirming that OC-based business models can fall into one of two major categories: i) commerce-based; ii) and non-commerce-based business models. In the first one, revenue derives mainly from commerce activity (Franz and Wolking, 2003, Hanson, 2000, Timmers, 1998). In non-commerce-based business models, the sources of revenue are subscription fees, advertising or a combination of both (Franz and Wolking, 2003, Hanson, 2000, Timmers, 1998). This does not necessarily mean a complete lack of commerce activity in non-commerce-based business models. Transactions are common in these communities as a secondary source of revenue. The same applies to advertising and subscription revenues in commerce-based business models.

4.1.1. Communities with Commerce-based Business Models

The observed revenue-generating OCs with a commerce-based-model always involved at least three elements: the platform-owner; sellers/providers (community members that are selling goods or services); and buyers/customers (members that are willing to pay for the goods or services offered by

sellers/providers and/or the platform owner). Platform owners are brokers, whose main role is operating the adequate web places to connect community members. Revenues are transaction-based, i.e. the company that provides the community platform receives a fee for enabling or executing a transaction (Enders et al., 2008). Transaction models may however be combined with subscription and/or advertising revenues.

The platforms of commerce oriented OCs usually include at least two kinds of elements: (1) tools needed for coordination in order to achieve the core goal (the commercial exchange) such as catalogues, search or ordering functionalities (Meents, 2009); (2) and additional tools for communication among members mainly to prevent possible negative consequences due to the fact that most exchanges occur among entities that have never met. Voting, rating, and commenting are popular tools to express community members' opinions or to evaluate the quality of others' products, and services. Buyer-seller rating systems are also used to assess transactions' quality. These reputation systems promote trust by reducing uncertainty and supporting the selection of both products (or services) and providers (Saxton et al., 2013, Dellarocas, 2003).

The classification of these commerce communities is extremely intricate, given that they vary in many factors, some of them already described in the literature (Geiger et al., 2011, Saxton et al., 2013). First of all, they vary in terms of the type of offer. The community may sell general physical goods, as Ebay (www.ebay.com) or Sell.com (www.sell.com) which are sometimes designed and produced by the sellers themselves. For instance, Etsy (etsy.com) and Artfire (artfire.com) are two marketplace communities devoted to handcraft. Threadless (www.threadless.com) is an e-commerce website that mainly sells T-shirts, whose design is entirely created and chosen by the community. Still others sell member-created digital goods, as iStockphoto (www.istockphoto.com) and VideoHive (videohive.net).

Another set of commerce communities are devoted to service provision. People offer their services to carry out very diverse tasks, with different levels of complexity. At the low end of complexity are the tasks such as photo tagging,

simple data coding, transcription services, or data de-duplication, like in Amazon's mTurk (mturk.com). At the other end of the continuum are more complex tasks such as research and development, like Innocentive (www.innocentive.com); product design and digital media production, like 99designs (99designs.com) and Crowdspring (crowdspring.com); or software development like TopCoder (www.topcoder.com) and RentACoder (www.rentacoder.com). In other communities, members rent their possessions like: houses, such as in Airbnb (airbnb.com); cars, such as in RelayRides (relayrides.com) and GetAround (getaround.com). Others lend or invest their money, such as Prosper (www.prosper.com), Zopa (www.zopa.com), CrowdCube (crowdcube.com) or Lending Club (www.lendingclub.com).

In a few words, companies with commerce-based business models provide a service which consists of providing platform to support communities in buying and selling products and services, creating value mostly through transaction fees.

4.1.2. Communities with non-commerce-based business models

For-profit communities whose revenue is not based on commerce may be classified in different ways. Relying on data analysis and supported by the literature (Spaulding, 2010, Hagel and Armstrong, 1997), we present a classification based on community main purpose: swapping OCs; gaming OCs; relationship OCs; and sharing OCs.

Swapping communities are groups of people that join in the same online space to exchange products that they own or services that they are able to provide, by other products or services they need. Platforms are similar to those of online commerce as they entail an exchange between both parts. Although these OCs have similarities with commerce communities, in this case there is no money involved because members barter instead of selling and purchasing. Home Exchange (homeexchange.com) is a well-known example of a worldwide community of house owners, who by paying a small fee per month may temporarily swap their homes and apartments with each other, free of any additional charge. Swapping communities have mostly advertising and subscription-based revenue models. For example Home Exchange is only

subscription-based, whereas Home Base Holydays (www.homebase-hols.com) uses a combination of both.

A *gaming community* is a group of people that join in the same online platform to socially play. Two of the most notorious are Ultima Online (www.uo.com) and World of Warcraft (battle.net/wow). Unlike the single-player games, players can accomplish their goals collaboratively with other players or may choose to compete against others. The emergence of online gaming communities date back to the arrival of multiuser dungeons (MUDs), entirely text-based games that could be played simultaneously by multiple users who could interact with each other in any way they desired, namely by forming groups. Later, social games evolved to massively multiplayer online role-playing games (MMORPGS) which have a graphical interface instead of text commands. This game genre transports users into large-scale persistent environments – virtual worlds - where they may take on the role of characters, called avatars (Achterbosch et al., 2008). Gaming community is not, however, a synonym of virtual world, given that virtual worlds are also frequently used for other objectives than playing, especially socialization, like in IMVU (imvu.com) or vSide (www.vside.com).

Traditionally, gaming communities followed subscription-based revenue models. For instance, World of Warcraft still fits into this category. The player pays a simple fee, which gives him/her unlimited access to the game during a certain period of time, normally a month (Alves and Roque, 2005). Currently, selling virtual goods (micropayment revenue model) has become a major new source of revenues, combined or not with subscription fees (e.g. Entropia Universe (entropiauniverse.com)). Virtual goods are objects such as characters, items, currencies and tokens that exist inside various online games and may be bought by players for functional, hedonic or social reasons. The object sold for real money is often a virtual currency, with a specific quotation, which is then exchanged for virtual items (Lehdonvirta, 2009). The same principles seem to apply not only to social games but also to other virtual worlds with different purposes.

A relationship community is a group of people that get together in the same online platform to develop new social relationships and/or nurture existing ones through socialization (e.g. Bebo (bebo.com), Habbo Hotel (www.habbo.com). They are often large communities where people organize themselves in several smaller communities and social networks that reflect their offline relationships and/or the similarity of interests. Many of these communities focus on particular types of relationship. For instance, Zoosk (www.zoosk.com) is specialized in romantic relationships, LinkedIn (www.linkedin.com) focuses on professional bonds, and Meetup (www.meetup.com) is focused on relationships between people of the local community who also meet face-to-face. These communities may also target specific audiences. For instance, BlackPlanet (blackplanet.com) is a social network for African-American people and Disabled Community (disabledcommunity.com) is oriented towards people with disabilities.

These communities are generally supported by platforms that have space for detailed self-description, whose elements vary according to the OC objectives. As they are mostly focused on fostering dialog among members, conversation tools such as chats or forums are common. Social network services increasingly tend to be the key social tool for these OCs. Virtual worlds are also often elected environments for the development of OCs with a focus on socialization. Two examples are Habbo Hotel (www.habbo.com) and IMVU (imvu.com). Since communication among members frequently includes the disclosure of private information, questions of privacy are an extremely important concern in these communities. Having access to community-created content usually entails registration in the community. Privacy settings, if appropriately set up, usually allow individuals to determine who may access their personal information.

A sharing community is a group of people who use the same online space to share and get information. Therefore, there are two kinds of members: content contributors (active participants) and content users (passive participants), usually called lurkers (Preece et al., 2004). Depending on the community, digital content may take several forms, such as audio, video or

image files, and/or information in the form of text, votes, tags or links to other websites. Content can be generic or focused on a specific subject. For instance, YouTube has an equivalent that is exclusively devoted to Christian videos, the GodTube (godtube.com).

Active participants' motivations to work for sharing communities are mostly intrinsic. Our results indicate that very few contribute for the chance of getting a payment or a material reward, like in the OCs with a commercial-based model. Studies have shown that many participants do so for entertainment reasons (Sangwan, 2005, Cheung and Lee, 2007). Gains in reputation or status and the achievement of a sense of self-efficacy are also frequently mentioned in literature as motives to actively participate in sharing OCs (Wasko and Faraj, 2005, Hars and Ou, 2002, Wang and Fesenmaier, 2003). Expressing themselves, enhancing professional skills and creating social ties with people who shares the same interests may also lead people to work for free (Faraj and Wasko, 2001, Wu et al., 2007). On the other hand, passive participants mainly use these communities to be entertained or for instrumental reasons (Wang and Fesenmaier, 2003, Hinds and Lee, 2008). Nowadays, community-created content often is an essential source of information for the resolution of daily problems that otherwise would be difficult or very expensive to solve.

Sharing communities are generally sustained by platforms that work as content repositories. Blogs, wikis, forums, content sharing, voting, bookmarking and tagging services are the most common social tools offered by these platforms. Usually, each community is specialized in one of those tools. Privacy concerns are less relevant than in relationship OCs. In most cases, the content produced can be accessed not only by the registered members but by all internet users, which makes it difficult to define the precise borders of the community. Direct communication among the community members is less frequent or ultimately nonexistent. YouTube, Flickr (flickr.com), SlideShare (www.slideshare.net) are some of the most well-known for video, photo and slide sharing, respectively. This category also includes social bookmarking communities such as Reddit (www.reddit.com) or Del.icio.us (delicious.com); Q&A communities such as Yahoo Answers (answers.yahoo.com) or Quora

(www.quora.com); and consumer review OCs, like Epinions (epinions.com), Yelp (yelp.com) or TripAdvisor (www.tripadvisor.com).

In summary, companies that develop communities with non-commerce-based business models provide service platforms to support its members in bartering products and services, socializing, playing and sharing information, creating value mostly through subscription and advertising fees.

The challenge of classifying online communities

Many OCs are hard to unequivocally be classified into one only category. The major difficulties seem to lie in the distinction between relationship and sharing communities. Our analysis suggest that many OCs may not be classified as 'pure socialization' or 'pure sharing' OCs, but as 'predominantly socialization' or 'predominantly sharing' OCs distributed all over a continuum (Glørsen, 2006). Niche OCs, which assume a subject focus or a target group (Gazarov, 2008) are normally more difficult to be clearly classified as relationship or sharing communities. On one hand, the existence of a central topic or target promotes content creation around it. On the other hand, as people tend to choose friends similar to them, the presence of a community focus favors the development of relationships with people with common interests.

Our analysis also suggests that massified OCs, inhabited around the world by many millions of different people, such as Facebook and Twitter, may hardly fit any of the previously presented categories. For instance, Twitter started with the clear objective of being a socialization-oriented community, however research (Johnson and Yang, 2009) indicates that members use it more as a content aggregator than for socialization purposes. Facebook was also born as a relationship community, closed to American top university students. It became the largest OC ever created, accommodating more than one billion members who use it for entertainment, learning and work purposes (Bosch, 2009), to keep in contact with other people, but also to share content and information, to play social games and even to shop.

Value creation through OC-based business models

When the internet was a novel phenomenon, people were willing to pay for being able to share and socialize online. However, online social platforms became ubiquitous and people expect to use them for free or for a very low price. Therefore advertising-based revenue models are currently more common than subscription-based models. In fact, many community enablers are adopting “hybrid” models, combining both of them (Enders et al., 2008). Among subscription-based models, the ‘freemium’ model is the most common. It assumes that by default the service is free and users are only charged for some advanced functions and increased opportunities (Enders et al., 2008, Gazarov, 2008). LinkedIn (www.linkedin.com), Vimeo (www.vimeo.com) and Flickr (flickr.com) are just some examples. In advertising-based models, display banner advertising is the most common. The platform owner charges fees for displaying other companies’ advertisements. In most cases this process is managed through an advertisement intermediary like Google. However, large communities that are consumption-related, like TripAdvisor (www.tripadvisor.com) or Yelp (yelp.com), also profit through affiliate marketing, by selling leads to companies that sell the products and services addressed by the community (Canzer, 2006, Enders et al., 2008).

OCs have high potential for both customers and hosting firms, but providing a social platform is not a guarantee of value creation. Without people, the platform is just a value proposition. Realizing value implies that people find value on it. OCs’ platforms are only valuable if they attain critical mass of people and content, without which the OC is not viable (Markus, 1987, Preece and Maloney-Krichmar, 2003). The higher the number of platform users, the more valuable is the platform, because community dimension increases the number of possible connections and groups that can be created and the amount of content that can be generated (Gazarov, 2008). In this context, starting an OC from scratch is an extremely challenging task. Although being the first mover in a given segment may be a facilitating factor in what concerns to member attraction (Hagel and Armstrong, 1997, Franz and Wolkinger, 2003), the history shows that it is not an assurance of continuous success. It is also difficult to keep

a healthy OC for a long time, given the threat of migration to newer platforms (Kumar et al., 2011), which had already caught several large communities once successful like MySpace (myspace.com) Hi5 (www.hi5.com) and Orkut (www.orkut.com), which lost the majority of their members to Facebook. and Twitter.

To deal with these threats, platform providers need to improve their value propositions. A possible strategy is adding intrinsic value to online social platforms, making them useful even if the member is the only one using it (Gazarov, 2008). This can be done by offering the possibility of privately using the platform as a non-social tool to store, organize or edit content. For instance Flickr (flickr.com) lets users store their photos on their servers and share them with anyone (not only Flickr users); Youtube does the same for videos; Del.ici.ous (delicious.com) is the solution for bookmarks. In any of these cases, users can choose only to store their content without sharing it with all the other users but most people end up sharing at least some of their content. Another approach to create intrinsic value may be orienting the community towards a niche, adding to the social platform relevant niche-specific tools and services as well as professional editorial content around the central subject. Targeting a niche segment, not only facilitates the attraction and retention of members, but also makes advertising much more attractive to the companies given the guarantee that ads are going to be delivered to the right people.

4.2. Creating OCs as supplement of a core business

Creating value through the development of OCs does not necessarily mean developing a completely new community-based business. Companies of all industries have the potential to create value with consumers by fostering OCs around their offerings. Based on study results and literature review, Table 3 identifies and characterizes this type of OC. The purpose of these OCs is not to directly generate revenue, but to influence consumers' processes of consumption of products and services. They constitute privileged contexts for directly promoting company's offerings and valuable sources of information about the needs and desires of target consumers (Flavián and Guinalú, 2005).

Company-hosted consumer communities constitute spaces for direct communication between consumers and companies, becoming an additional customer service channel (Gribbins et al., 2002). They can also be used to involve consumers in co-production.

Table 3: Developing OCs as supplement of a core business

	Role of company	Value for the company	Role of consumers	Value for consumers
Company-hosted consumer communities	Host / community manager	Privileged spaces for promoting products and services	Information seekers	Access to information from other consumers (not commercially biased)
	Connector	Collection of information about consumers' needs and opinions	Fun seekers Prize hunters	Direct contact with the company
- Customer communities	Aggregator, Integrator		Co-producers / contributors	Enjoyment
- Interest communities	Customer supporter	Channel for direct contact with consumers (new customer service channel)	Socializers	Rewards (prizes)
	Advertiser	Strengthening of consumer relationship with the brand		Social enhancement (recognition)
		Consumers as co-producers – more quality offerings at lower costs		
		Increase of brand awareness		
		Development of brand image		

Consumer communities fostered by firms may have either a hedonic or a functional predominant orientation (Bagozzi and Dholakia, 2002). Hedonic oriented consumer communities aim at creating enjoyable experiences through interaction between members and among these and the brand or company. Functional oriented consumer communities are mainly centered on pragmatic aspects of the company's products or services and tend to produce short-term participation and more superficial relationships among members. In company-hosted consumer OCs, data analysis allowed for the identification of two sub-types i) *customer communities*, whose members have in common the use of the

company offering; and ii) *interest communities*, whose members share a consumption-related interest closely related to the company offering, without necessarily being company customers.

4.2.1. Customer Communities

A *customer community* (Algesheimer and Dholakia, 2006, Romero and Molina, 2011, Moon and Sproull, 2001) is a group of people who have in common the use (or the intention of use) of the products and/or services of a particular brand/company and whose participation is mostly focused on those products and/or services. The concept of customer community seems to be frequently confused with that of brand community (Yahia, 2007). Literature states that a brand community entails a set of conditions that may not be assured by just creating a branded space for brand users. Muñiz and O'Guinn (2001, p. 412), the authors who first introduced and explained the notion of brand community, define it as "*a specialized non-geographically bounded community, based on a structured set of social relationships among admirers of a brand (...) marked by a shared consciousness, rituals and traditions, and a sense of moral responsibility*". Research indicates that brand passion is positively influenced by perceived uniqueness, prestige, self-expressiveness and hedonic value (Bauer et al., 2007). Thereby, brand communities tend to be formed around high involvement brands with strong symbolic value (Martin, 1998), goods or services, which are publicly consumed, operate on niche markets and require consumers to make major investments in time or money (Muniz Jr and O'Guinn, 2001). In line with this rationale, few brand communities are formed around convenience product brands (Cova and Pace, 2006).

Some authors have already shown evidence that brand communities are privileged spaces of 'immaterial work' (Cova and Dalli, 2009) of consumers who engage in activities that add value to companies' offerings. Their collective practices, both online and offline, create value by expanding the brand community, increasing brand engagement, creating brand consumption opportunities and inspiring innovation (e.g. Schau et al. 2009, McAlexander et al., 2002, Moon and Sproull, 2001). Furthermore, in brand communities, active participants have more positive relationships with the brand, manifested by

increased intention of recommendation and purchase, as well as increase in the acquisition of branded products (e.g. McAlexander et al., 2002; Bagozzi and Dholakia, 2006).

Given this evidence, companies are strongly encouraged to create their online brand communities. However, this is a very challenging task, especially for those that offer convenience products. Most brand communities reported in literature are in fact initiated and nurtured by customers based on their enthusiasm for brands (Dholakia and Vianello, 2009, Brodie et al., 2013). Some examples are Lugnet, the main LEGO community of adult fans (Moon and Sproull, 2001), the diverse Apple User Groups (Muniz Jr and O'Guinn, 2001, Moon and Sproull, 2001) or Lomography, the LOMO brand community (Schau et al., 2009).

Moreover, our analysis suggests that when a company creates a branded online space for customer interaction, that does not mean the company is necessarily promoting a 'genuine' brand community. Few company-hosted customer communities appear to have the characteristics of 'genuine' brand communities mentioned above. There are some cases described in the literature where companies have been successful in the task of creating a real sense of community around the brand, by fostering interaction among customers and promoting practices and rituals around it (O'Sullivan et al., 2011). Such are the cases of Harley, with the creation of the Harley Owners Groups in 1983 (Bagozzi and Dholakia, 2006), Nutella (Cova and Pace, 2006) and Jones Soda (Schau et al. 2009). However, literature review as well as the cases we have studied reveal that in most cases when companies build an online customer community, their main objective is not directly creating a sense of belonging based on brand engagement, but to satisfy customers by fulfilling their functional needs, which is also a way of creating value. People are attracted to these communities not to 'celebrate' their enthusiasm about the brand, like in actual brand communities, but to give and obtain useful information about products and services they have already bought or intend to buy.

Value creation through customer communities

Participation in company-hosted customer communities (whether 'real' brand communities or not) occurs with a close association to the firm and its brand. Thus, a positive experience from this participation has the potential to strengthen consumer relationship with the brand (Algesheimer et al., 2009), which is associated with higher levels of satisfaction, a propensity to promote the brand to others and a preference for the brand over competitors' offerings (Pai and Tsai, 2011, Algesheimer and Dholakia, 2006, Carlson et al., 2008). Company-hosted customer communities are also the appropriate settings for companies to involve those customers in different stages of the company's production and distribution of its offerings (e.g. Moon and Sproull, 2001, Spaulding, 2010, Nambisan and Baron, 2007, Romero and Molina, 2011), enabling reduction on costs and improvement on product/service quality. The study results show that these OCs are especially valuable in the areas of innovation, marketing communication and customer service.

Innovation

Companies recognize that members of online customer communities are an especially valuable source of innovation because they are normally experienced customers of the company's products (Füller et al., 2008). Whereas some companies develop customer communities with the main objective of getting regular contributions for innovation, others may use their OCs to occasionally challenge members to participate in the innovation process. Community members may participate both in early stages of new product and service development such as ideation and concept development; and in later stages such as design and testing (Hoyer et al., 2010, Sawhney et al., 2005, Nambisan, 2002).

Starbucks and Dell are examples of companies that constantly integrate their online customer communities in the process of idea generation. Starbucks created a community site called MyStarbucksIdea.com (www.starbucks.com/coffeehouse/learn-more/my-starbucks-idea), where members can post their ideas about service improvement, vote on others' ideas and discuss the ideas with the community. The most voted ones are

implemented and announced on the website. Similarly, Dell launched the initiative IdeaStorm, a space hosted on the site of Dell Community (community.dell.com) where customers share ideas and collaborate with one another. This community enables Dell to know what new products or services customers would like to see developed. In addition to the open discussion, this community organizes Storm Sessions, open for a limited time, where Dell posts a specific topic and asks customers to submit ideas. Hundreds of ideas have been already implemented.

Typically, involvement of customer communities in later stages of new product and service development correspond to deeper levels and involvement and is normally associated with technically complex products/services. Google and Microsoft not only invite users to early stages but also, and mostly, to later stages of product development. In this case, lead-users play an especially important role (e.g. Sawhney et al., 2005, Franz and Wolkingner, 2003, Fuller et al., 2004, Bragge et al., 2010, Jeppesen and Frederiksen, 2006). For instance, Microsoft promotes the Most Valuable Professional (MVP) Program, where it recognizes some hundreds of independent professionals, among the more than 100 million people who participate in technology communities around the world, for sharing their knowledge about Microsoft technologies with others in an exceptional manner (Moon and Sproull, 2001). MVPs are graced with several benefits, such as access to product Alphas and Betas, training and early access to product information. These independent professionals are also invited to participate in OCs managed by Microsoft where they have direct and close connection with product teams at Microsoft (Kaiser and Müller-Seitz, 2008).

The community of the Android Open-Source Project, besides full-time Google engineers, product managers, designers and quality assurance technicians, includes anyone who is interested in exploring and contributing to Android. Community members, who mainly connect via mailing lists and IRC, may contribute to Android source code, develop applications and test changes. Google employees are then responsible to integrate all the process in order to attain a consistent platform.

Marketing Communications

The Global Trust in Advertising and Brand Messages (Nielsen, 2012) indicated that 92% of people trust recommendations from people they know and 70% trust consumer opinions posted online. On the other hand, less than 50% trust any kind of traditional advertising (on radio, TV or press). In this context, marketing managers are increasingly interested in taking advantage of Internet potential to direct or indirectly influence Word-Of-Mouth (WOM) (Godes and Mayzlin, 2009, Kozinets et al., 2010, Trusov et al., 2009). WOM marketing is, defined by Kozinets et al. (2010) as the intentional influence on consumer-to-consumer communication through marketing techniques. With the widespread use of social platforms on the Internet, social networks have become an important medium for spreading positive WOM about companies or brands. According to the Word of Mouth Marketing Association (WOMMA, 2007), one way of doing WOM Marketing is forming niche communities that are likely to share interests about the brand (such as user groups or fan clubs). By providing these communities tools, content and information, companies inform community members about their products and services and facilitate information sharing around them. Vocalpoint (www.vocalpoint.com) developed by Procter&Gamble, is an example of a WOM oriented customer community. Once registered in this 'community of moms', members have can receive free samples and coupons of Procter&Gamble products. After trying them, they are expected to share their opinions and answer polls. They are also enticed to talk about the company's products with their friends and to share samples and coupons with them.

Companies are giving special attention to their own social networks within social network sites, such as company pages on Facebook. These CSNs, differently from other online groups (for instance, a community of brand users who get together in a forum), are open. This means that the actions that are carried out in the scope of the group are not only seen by its members but also by many other people that connect electronically to each of those members. As such, a message shared in network has the potential to get a much wider reach than traditional marketing communication messages. In this context, companies

are increasingly using their social networks' members as channels for brand communication and social networking sites are making efforts to improve their capabilities to answer companies' needs in this respect.

Social networking sites allow the generation of both intentional and unintentional WOM. The simple act of starting to follow a company or company-related page on a social networking site is a way (sometimes unintentional) of WOM. For instance, on Facebook, members of an individual's personal social network are notified when that individual joins (likes) a Facebook page. Moreover, from that moment on, the company starts making part of the individual personal profile, telling others that s/he has some kind of positive relationship with it. Host companies can also launch company-related content (news, pictures, videos, applications, polls...). When members interact with this content, the message spreads to the page streams of their personal connections within the social networking site.(http://www.facebook.com/business/en_GB).

Companies can also take more proactive actions by asking CSN members to 'recruit' new followers among its personal connection as a condition to participate in a contest or in exchange for free samples. These actions are frequently integrated in broader campaigns often contracted to companies specialized in social marketing that enclose not only company-managed but also member-run communities.

Customer service

Many companies promote the development of online consumer communities for customer service in both pre-purchase and post-purchase, relieving the business of some of the burden of more traditional and costly support mechanisms (Spaulding, 2010). Although some communities provide both pre-purchase and post-purchase customer support, they typically concentrate on one stage. Pre-purchase customer support communities focus on experience sharing, enabling members to share their perspective about the quality and drawbacks of products, services or brands in order to inform other consumers prior to making a purchase (Curien et al., 2007). This kind of communities is especially common in the scope of e-marketplaces, where consumers post reviews and comments about the products and services they have experienced.

Amazon, a large online retailer, owes a great part of its success to the development of a dynamic community of users. Through this community, a significant part of the information provided by Amazon about products (and services) for sale as well as about buyers and sellers is user-generated.

Consumer communities centered in post-purchase support aim at helping consumers to best use products or services they have already purchased, by making them aware of all their potentialities and by helping them to solve problems (Curien et al., 2007). Different from pre-purchase, support communities, normally developed by multi-product and multi-brand sellers, these OCs are more usually created by providers of complex and fast changing products and services. Linksys, Cisco, Blackberry and Dell are just some of them.

The creation of these OCs not only enable cost reduction with services of customer support, but also improve the quality of these services by bringing about the user perspective that complements (rather than substitute) expert information. (Moon and Sproull, 2001). Consumers perceive other consumers' opinions about products and services to be free of commercial interest and thus more honest than the information directed offered by the company. If the own company promotes this feedback, consumers should develop trust and satisfaction towards it.

Production

Online content-driven businesses such as online newspapers often count on their OCs to improve their services (Harrison, 2009, Jönsson and Örnebring, 2010). Although their business model is mostly developed around professionally generated content, user-generated content adds significant value to the company offering. The degree of community contribution may vary a lot. Most of these companies (such as online newspapers, specialized websites, revenue-generating blogs) allow at least sharing and commenting on their articles, either directly on their websites or on their social networks' pages. Others go further, such as the case of Relvado (www.relvado.sapo.pt), a Portuguese sports' news website that allows its readers not only to comment on articles but also to write their own, assigning them points of 'prestige' according to their level of participation. As studies on this subject are rare, the question of

value creation is still not totally clear. Our investigation suggests however that, by empowering consumers, companies are leading them to higher levels of engagement with their services. This theme certainly deserves further research.

4.2.2. Company-related interest communities

Some firms are hosting and promoting the development of OCs where neither the brand nor the specific company offering is the focus of participation - *company-related interest communities* (Yahia, 2007). In these communities, members are connected by a common topic of interest that is somehow related with the company offering. Members are not necessarily brand admirers or even brand users. Ultimately, they may even be unaware of its existence. Companies create web spaces (usually within their official websites) that combine tools for consumer participation and interaction with content created by the company and by field specialists about the central topic.

Our analysis suggests that this strategy of community development seems to be more common to companies with low involvement offerings, such as food retailing or consumer packaged goods. For instance, P&G created the Pampers Community (community.pampers.com), a parenting site embedded in the Pampers' (a diapers' brand) official website, which includes social features that enable members to communicate among them and with specialists about conception, pregnancy, childbirth and baby care.

Study results also suggest that developing consumption-related interest communities is also suitable for little-known brands, as they have the potential to increase brand awareness (Flavián and Guinalú, 2005). For example, if someone is looking for parenthood online information written in Portuguese, there is a good chance of finding the forum PinkBlue (foruns.pinkblue.com). According to its manager (who was interviewed in the scope of this study), when moms enter the forum for the first time, they rarely know that the forum is anchored to an online and offline store of baby products with the same name. Amplified awareness has the potential to increase the number of customers both online and offline, particularly because this OCs reach the precise target of the company. Moreover, a positive experience with the community can develop

satisfaction and trust in the company in which that is anchored, and consequently can increase loyalty towards it. These communities may also have an important role in the development of a strong brand image. They are in fact a great factor of differentiation from other brands with similar offerings, which is particularly important for convenience goods where differentiation from competition is harder.

4.3. Establishing close relationships with consumer-run OCs

The results of data analysis show that companies may either create their own consumer communities from scratch or establish close relationships with existing consumer communities run by their members. These external consumer communities may be formed around a general subject of interest, a specific product or service, or a specific brand. OCs should be especially targeted when they are somehow related with the company's offering. With this strategy, companies can create value by actively collaborating with these communities. For instance, by establishing partnerships or even participate in those communities. But they may also create value in ways that do not involve getting directly in touch, such as by 'silently' gathering useful information about consumers. Below, we present some example of cases where this strategy proved to be successful.

As these OCs are external to the company, this strategy has some evident limitations. They are much less controlled by the company that has few or no power over the community activities and the content created. Nevertheless, as companies do not need to allocate the resources to hosting and managing the community, these communities may be attractive in terms of cost-benefit. The value created through already established OCs may be similar to those of company-initiated communities. At the same time, these OCs may be used to locate lead-users (Bragge et al., 2010) and key influencers to establish their own communities (Ogawa and Pongtanalert, 2013).

Innovation and Customer Service

Apple and Microsoft are two examples of companies that actively created strong bonds with independent user communities and involved them in value creation (Moon and Sproull, 2001). Both Apple and Microsoft have programs to support user community efforts. The partaking user communities have benefits like funding for community events, discounts, and exclusive contents for community members. Both companies have also created webpages dedicated to the external user communities where people may use a locator of the user communities around the world. Also Nike used a similar approach when its staff asked for product feedback from members of Niketalk (niketalk.com), an independent OC of Nike fans, willing to share their thoughts for shoe designs free of charge (Fuller et al., 2007). This kind of collaboration is particularly interesting when the OC has a good base of enthusiast experts, with in-depth knowledge relevant areas for the company who are available to freely, or for a very low cost, share that knowledge.

Positive Word-of-Mouth and Advertising

As was mentioned before, most brand communities are created and run by their own members, not by brand owners. Brand communities are especially interesting for companies, because members are predominantly enthusiasts about the brand, which means they have a positive, sometimes idealized, image of the brand and, thereby, an increased propensity to recommend it to others. Positive word-of-mouth generated by these customers can result in potential increases in market share for the firm with minimal marketing effort. Companies can potentiate it by establishing positive relationships with those communities, sponsoring their events and providing them the tools for a more effective brand communication (e.g. merchandising).

Many consumer-run OCs also sell spaces for advertising in their websites, not to obtain profit, but for subsistence purposes. Companies may thus take advantage of these opportunities to better target the consumers who are relevant for their businesses.

4.4. Using the services from other companies' revenue-generating OCs

The fourth category of strategies for value creation through OCs is to use the services of other revenue-generating OCs, which are OC-based business models. This strategy also implies taking advantage of existing OCs, and can therefore also be attractive from a cost-benefit perspective, as companies can access some of the value potential of OCs without all costs of creating, supporting and managing the OC. However, in contrast with consumer run OCs, revenue generating OCs are profit oriented and as such usually require the company to pay for these services. Besides, in some cases, questions of competition may also be an obstacle.

Getting Consumer Information

A significant part of consumers' communications within OCs is valuable for companies as it is related to brands, services and products. Knowing what consumers are saying about companies' offerings, what they like and dislike and what they want to achieve became an essential practice in a networked world. Therefore, companies are increasingly using social media monitoring tools, such as Sysomos, Radian6 or Lithium, in order to assess the word-of-mouth intensity and identify the general feelings and thoughts about their services and products. Key general OCs, such as Facebook and Twitter also offer their own analytic tools. A better understanding of consumers' needs and wants through social media monitoring enables companies to better adapt their offerings and marketing strategies.

Using crowdsourcing services

Companies can also create value through a special kind of commerce-based OC – crowdsourcing communities. Crowdsourcing is a process where firms release a task that is being conducted in-house to a 'crowd' of outsiders, normally an OC, who are invited to perform the task on the firm's behalf for a stipulated fee (Howe, 2008). Crowdsourcing communities are made up of workers - the crowd - and buyers. The buyer (normally a company) presents the task to be completed and one or several members of the crowd offer to undertake the task. When the task is done, if satisfied, the buyer will make the payment to the

member (Whitla, 2009). The platform provider is the intermediary that enables the match of the buyers' needs with the workers' skills and control the relationship established between them. Through the use of these OCs, companies can gain access to a very large and sometimes rare range of skills and expertise. They get activities completed with quality, within a shorter time-frame and often at lower cost than if performed in-house (Harris and Srinivasan, 2013).

Advertising

Small and large companies are using OCs to advertise their brands, products and services. Niche communities are particularly interesting for advertising given that there is a higher chance of achieving the right audience. Therefore all OCs whose content is focused on a specific topic or is oriented towards a particular target can be seen as potential spaces for advertising. Larger, for-profit niche revenue-generating communities typically have their own advertising systems that go beyond banner advertising, offering multiple services that enable other companies to create value through advertising to potential customers.

Product or service consumption-related communities, such as TripAdvisor or Adegga (adegga.com), a community of wine lovers, are especially valuable, because they often allow the creation of company profiles within the community website and offer them affiliate programs. Key OCs such as Facebook, Twitter and YouTube, which are visited by millions everyday are also attractive spaces for advertising, namely because they are offering sophisticated ways for companies to target those who really interest them. These large revenue generating OCs can identify company's target audience through psychographic and demographic filters in such a way that the ads are only displayed to people matching those criteria. In some OCs, advertising displaying is based not only on the information that each person directly discloses about her/himself on the OC website, but also on the individual web browsing history, within and outside the OC borders, through the use of cookies.

Build their own social networks of consumers

In the past, many companies tried to develop and host their OCs of consumers using their own online spaces. These communities were usually anchored on their official websites, but this often led to difficulties in attracting and engaging consumers. Now, many companies have moved their traditional OCs, which previously lived in proprietary social sites, to the large social networking sites, such as Facebook, Twitter, YouTube, Instagram or Pinterest.. Others created for the first time their online social networks of consumers in one or more of those key sites. For their accessibility, dimension and viral potential, social networking sites became privileged spaces for communication with and between consumers. Interviews with managers reveal that they are concerned with this question. They assert they miss guidance in what respect to the management of these new communities that are frequently using intuition and creativity and adopting predominantly a “trial and error” approach. At the same time, they are getting in the adventure without knowing well what they can take from it. These are important reasons to start an in-depth exploration of this phenomenon.

5. Discussion and Conclusion

This study enables a deeper understanding of the importance of OCs for business by developing a taxonomy of the ways companies can create value with consumers through OCs. Although OCs have been subject to a large number of studies, namely in what respects to their value for business, the breakthrough of this study is the fact of integrating the vast and scattered primary and secondary data about this subject matter. Based on an extensive review of extant OCs literature, exploratory interviews with OC managers, and the analysis of 91 OCs, a taxonomy was developed identifying four broad strategies for value creation through OCs. For each category a characterization was made and the different forms of value co-creation for company and consumers were analyzed.

The first strategy consists of creating OC-based business models. In fact, Internet enabled companies – large firms and especially business entrepreneurs

– to launch several new community-oriented value propositions on the web. Electronic platforms for various different purposes proliferate through the internet. They revolutionized the way people socialize and play with each other but also triggered great changes regarding content creation and consumption, the way consumers buy and sell, and the available products and services. Above all, platform providers became essentially brokers. Platform users, together as communities, became the main providers of services and goods. The observation of this environment shows, however, that only a small minority of those platforms are really able to foster communities within. Most of them never get to achieve the critical mass needed to become valuable for consumers and, thus, to create value for companies. This makes OC-based business models very challenging, especially because the factors of success are still not well understood.

Nevertheless, this study also shows that developing an OC-based business model is not the only possible way to create value with consumers through OCs. Regardless of their industries, companies may benefit from OCs of consumers all over the web. These communities should be seen by companies as important environments for value co-creation with customers, through the formation of a ‘joint sphere’ (Grönroos and Voima, 2013). Forming a ‘joint sphere’ may, on one hand, involve the company observing and directly relating with these communities in order to get in the consumers’ sphere (where value emerges) to understand their everyday practices and value-generating (consumption) processes (Grönroos, 2008) and directly engaging with them during those processes in order to influence their future consumption behavior (Grönroos, 2008, Prahalad and Ramaswamy, 2004). On the other hand, it may involve inviting consumers to get in their own sphere, through co-production (Wikstrom, 1996, Lusch and Vargo, 2006), i.e., the process of creation of the core offering itself, that can occur, for instance, through shared inventiveness and co-design.

Companies may strive to initiate and develop their own consumer OCs, but similar or even higher benefits may be achieved by paying attention and establishing good relationships with extant consumer-run communities, where

member engagement is already assured. Finally, no company, small or large, from whatever industry, may forget the relevance of the massified OCs, inhabited by millions of people around the world, where companies' presence became almost mandatory. For instance, study results, namely from the analysis of the interviews with managers suggests that not having a page on Facebook is now comparable to not having a corporate website.

In this study, we explored in detail each of these key strategies of value creation through OCs. From a managerial perspective, in the middle of such a plethora of possibilities and profusion of information, the constructed taxonomy should be useful for companies to get an overview of the choices they have and to position themselves when planning a social web strategy.

In the future, in-depth studies on the different ways of value creation that compose the presented taxonomy should be undertaken. Special attention should be paid to the phenomena that are still poorly studied. In this regard, we should mention the recent phenomenon of companies getting in social networking sites, such as Facebook or Twitter, where they are forming their own social networks. Despite the general enthusiasm around this subject, academic literature still lacks conceptualization of the phenomenon. Factors that influence participation in these CSNs need to be explored and compared with extant research on other types of consumer communities. Moreover, understanding the processes of value creation for companies through these social networks is also essential.

References

- Achterbosch, L., Pierce, R. and Simmons, G. (2008), "Massively multiplayer online role-playing games: the past, present, and future", *Computers in Entertainment (CIE)*, Vol. 5, No 4, pp. 1-33.
- Algesheimer, R., Borle, S., Dholakia, U. M. and Singh, S. S. (2009), "The Impact of Customer Community Participation on Customer Behaviors: An Empirical Investigation", *Marketing Science*, Vol. 29, No 4, pp. 756-769.
- Algesheimer, R. and Dholakia, P. M. (2006), "Do customer communities pay off?", *Harvard Business Review*, Vol. 84, No 11, pp. 26-30.
- Alves, T. and Roque, L. (2005), "Using Value Nets to Map Emerging Business Models in Massively Multiplayer Online Games", in Proceedings of the 9th Pacific Asia Conference on Information Systems (PACIS), Bangkok, Thailand, Paper 113,.
- Armstrong, A. and Hagel, J. (1995), "Real Profits from Virtual Communities", *The McKinsey Quarterly*, Vol. 3, No pp. 127-141.
- Bagozzi, R. and Dholakia, U. (2006), "Antecedents and purchase consequences of customer participation in small group brand communities", *International Journal of Research in Marketing* Vol. 23, No 1, pp. 45-61
- Bagozzi, R. P. and Dholakia, U. M. (2002), "Intentional Social Action in Virtual Communities", *Journal of Interactive Marketing*, Vol. 16, No 2, pp. 2-21.
- Bauer, H. H., Heinrich, D. and Marin, I. (2007), "How to create high emotional consumer-brand relationships? The causalities of brand passion", in Proceedings of the Australian and New Zealand Marketing Academy Conference, University of Otago, pp. 2189-2198.
- Berthon, P. R., Pitt, L. F., Plangger, K. and Shapiro, D. (2012), "Marketing meets Web 2.0, social media, and creative consumers: Implications for international marketing strategy", *Business Horizons*, Vol. 55, No 3, pp. 261-271.
- Blanchard, A. (2008), "Definition, Antecedents, and Outcomes of Successful Virtual Communities", In: Kock, N. (Ed.) *Encyclopedia of E-Collaboration*, Idea Group Inc., Hershey, pp. 126-132.
- Bosch, T. E. (2009), "Using online social networking for teaching and learning: Facebook use at the University of Cape Town", *Communicatio*, Vol. 35, No 2, pp. 185-200.
- Bowman, C. and Ambrosini, V. (2000), "Value Creation Versus Value Capture: Towards a Coherent Definition of Value in Strategy", *British Journal of Management*, Vol. 11, No 1, pp. 1-15.
- boyd, D. M. and Ellison, N. B. (2007), "Social network sites: Definition, history, and scholarship", *Journal of Computer-Mediated Communication*, Vol. 13, No 1, article 11.
- Bradley, E. H., Curry, L. A. and Devers, K. J. (2007), "Qualitative data analysis for health services research: developing taxonomy, themes, and theory", *Health Services Research*, Vol. 42, No 4, pp. 1758-1772.

Bragge, J., Tuunanen, T. and Marttiin, P. (2010), "Inviting Lead Users from Virtual Communities to Co-create Innovative IS Services in a Structured Groupware Environment", *Service Science* Vol. 1, No 4, pp. 241-255.

Brandtzaeg, P. B. and Heim, J. (2009), "Explaining Participation in Online Communities.", In: Whitworth, B.; Moor, A. (ed.) *Handbook of Research on Socio-Technical Design and Social Networking Systems*, Information Science Reference (formerly Idea Group Reference), New York, USA, pp. 167-182.

Brodie, R. J., Ilic, A., Juric, B. and Hollebeek, L. (2013), "Consumer engagement in a virtual brand community: An exploratory analysis", *Journal of Business Research*, Vol. 66, No 1, pp. 105-114.

Bryman, A. (2008), *Social Research Methods*, Oxford University Press, New York.

Canzer, B. (2006), *E-business: Strategic Thinking and Practice*, Houghton Mifflin Company, Boston, MA.

Carlson, B. D., Suter, T. A. and Brown, T. J. (2008), "Social versus psychological brand community: The role of psychological sense of brand community", *Journal of Business Research*, Vol. 61, No 4, pp. 284-291.

Cheung, C. and Lee, M. (2007), "What Drives Members to Continue Sharing Knowledge in a Virtual Professional Community? The Role of Knowledge Self-efficacy and Satisfaction", *Knowledge Science, Engineering and Management*, Vol. 4798, No pp. 472-484.

Cothrel, J. and Williams, R. L. (1999), "On-line communities: helping them form and grow", *Journal of Knowledge Management*, Vol. 3, No 1, pp. 54-60.

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

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

Curien, N., Fauchart, E., Laffond, G. and Moreau, F. (2007), "Online Consumer Communities: Escaping the Tragedy of the Digital Commons", In: Brousseau, E. & Curien, N. (Eds.), *Internet and Digital Economics: Principles, Methods and Applications*, Cambridge University Press, Cambridge, pp. 201-219.

Dellarocas, C. (2003), "The Digitization of Word-of-Mouth: Promise and Challenges of Online Reputation Mechanisms", *Management Science*, Vol. 49, No 11, pp. 1407-1424.

Dholakia, U. M. and Vianello, S. (2009), "Effective brand community management: Lessons from customer enthusiasts", *IUP Journal of Brand Management*, Vol. 8, No 1, pp 7-21.

Elo, S. and Kyngäs, H. (2008), "The qualitative content analysis process", *Journal of Advanced Nursing*, Vol. 62, No 1, pp. 107-115.

Enders, A., Hungenberg, H., Hans-Peter Denker and Mauch, S. (2008), "The long tail of social networking. Revenue models of social networking sites", *European Management Journal*, Vol. 26, No pp. 199-211.

Erickson, T. (1997), "Social Interaction on the Net: Virtual Community as Participatory Genre", in Proceedings of the 30th Hawaii International Conference on System Sciences, Maui, Hawaii, pp. 13-21.

Etzioni, A., Etzioni, O. (1999), "Face-to-Face and Computer-Mediated Communities, A Comparative Analysis", *The Information Society*, Vol. 15, No 4, pp. 241-248.

Faraj, S. and Wasko, M. M. (2001), "The Web of Knowledge: An Investigation of Knowledge Exchange in Networks of Practice", in Proceedings of the Annual Meeting of the Academy of Management, August 12-16, San Antonio, TX.

Flavián, C. and Guinalú, M. (2005), "The influence of virtual communities on distribution strategies in the internet", *International Journal of Retail & Distribution Management*, Vol. 33, No 6, pp. 405-425.

Fort, K., Adda, G. and Cohen, K. B. (2011), "Amazon Mechanical Turk: Gold mine or coal mine?", *Computational Linguistics*, Vol. 37, No 2, pp. 413-420.

Franz, R. and Wolkingner, T. (2003), "Customer Integration with Virtual Communities - Case study: The online community of the largest regional newspaper in Austria", in Proceedings of the 36th Annual Hawaii International Conference on System Sciences, Hawaii, USA.

Fuller, J., Bartl, M., Ernst, H. and Muhlbacher, H. (2004), "Community based innovation: a method to utilize the innovative potential of online communities", in *System Sciences - Proceedings of the 37th Annual Hawaii International Conference*, 5-8 Jan, Hawaii, USA.

Fuller, J., Jaweck, G. and Muhlbacher, H. (2007), "Innovation Creation in Online Basketball Communities", *Journal of Business Research* Vol. 60, No 1, pp. 60-71.

Füller, J., Matzler, K. and Hoppe, M. (2008), "Brand Community Members as a Source of Innovation", *Journal of Product Innovation Management*, Vol. 25, No 6, pp. 608-619.

Gazarov, N. (2008), "Business models of the new web: The economics of content, software and social networks"(white paper), Moscow International College of Economics and Finance - State University — Higher School of Economics.

Geiger, D., Sedorf, S., Schulze, T., Nickerson, R. C. and Schader, M. (2011), "Managing the Crowd: Towards a Taxonomy of Crowdsourcing Processes", in Proceedings of the Seventeenth Americas Conference on Information Systems, August 4th-7th, Detroit, Michigan.

Glørsen, I. and Ip P., (2006), "Business models in online communities: A case study", Telenor R&I. No N 11/2007. Available at: <http://robertoigarza.files.wordpress.com/2008/10/cas-business-models-in-online-communities-a-case-study-glc3b8ersen-et-alt-2007.pdf> (accessed: January 7, 2014)

Godes, D. and Mayzlin, D. (2009), "Firm-Created Word-of-Mouth Communication: Evidence from a Field Test", *Marketing Science*, Vol. 28, No 4, pp. 721-739.

Gribbins, M., Lauf, R., Subramaniam, C. and Shaw, M. (2002), "Focus on Consumers: P&G's e-Commerce Strategy", In: Shaw, M. (Ed.) *E-Business Management*, Springer US, pp. 109-131.

Grönroos, C. (2008), "Service logic revisited: who creates value? And who co-creates?", *European Business Review*, Vol. 20, No 4, pp. 298-314.

Grönroos, C. and Helle, P. (2010), "Adopting a service logic in manufacturing: conceptual foundation and metrics for mutual value creation", *Journal of Service Management*, Vol. 21, No 5, pp. 564-590.

Grönroos, C. and Voima, P. (2013), "Critical service logic: making sense of value creation and co-creation", *Journal of the Academy of Marketing Science*, Vol. 41, No 2, pp. 133-150.

Hagel, J. and Armstrong, A. (1997), *Net Gain: Expanding Markets Through Virtual Communities*, Harvard Business School Press, Boston, MA.

Hanson, W. (2000), *Principles of Internet Marketing*, South-Western College Publishing, Cincinnati.

Harris, C. G. (2011), "Dirty Deeds Done Dirt Cheap: a Darker Side to Crowdsourcing", in Proceedings of the IEEE international Conference on Social Computing, Boston, USA, pp. 1314-17.

Harris, C. G. and Srinivasan, P. (2013), "Crowdsourcing and Ethics", *Security and Privacy in Social Networks*, Springer, pp. 67-83.

Harrison, J. (2009), "User-generated Content and Gatekeeping at the BBC Hub", *Journalism Studies*, Vol. 11, No 2, pp. 243-256.

Hars, A. and Ou, S. (2002), "Working for Free? Motivations for Participating in Open-Source Projects", *International Journal of Electronic Commerce*, Vol. 6, No 3, pp. 25-50.

Hinds, D. and Lee, R. M. (2008), "Social Network Structure as a Critical Success Condition for Virtual Communities", in Proceedings of the 41st Hawaii International Conference on System Sciences, Hawaii, USA.

Howe, J. (2008), *Crowdsourcing: Why the Power of the Crowd Is Driving the Future of Business*, Crown Business, New York.

Hoyer, W. D., Chandy, R., Dorotic, M., Krafft, M. and Singh, S. S. (2010), "Consumer Cocreation in New Product Development", *Journal of Service Research*, Vol. 13, No 3, pp. 283-296.

Hsieh, H.-F. and Shannon, S. E. (2005), "Three approaches to qualitative content analysis", *Qualitative Health Research*, Vol. 15, No 9, pp. 1277-1288.

Jeppesen, L. B. and Frederiksen, L. (2006), "Why do users contribute to firm-hosted user communities? The case of computer-controlled music instruments. ", *Organization Science*, Vol. 17, No 1, pp. 45-63.

Johnson, P. R. and Yang, S. (2009), "Uses and gratifications of Twitter: An examination of user motives and satisfaction of Twitter use", paper presented at the Communication

Technology Division of the Annual Convention of the Association for Education in Journalism and Mass Communication, Boston, MA.

Jönsson, A. M. and Örnebring, H. (2010), "User-generated Content and the News", *Journalism Practice*, Vol. 5, No 2, pp. 127-144.

Kaiser, S. and Müller-Seitz, G. (2008), "Leveraging Lead User Knowledge in Software Development—The Case of Weblog Technology", *Industry & Innovation*, Vol. 15, No 2, pp. 199 - 221.

Kaplan, A. M. and Haenlein, M. (2010), "Users of the world, unite! The challenges and opportunities of Social Media", *Business Horizons*, Vol. 53, No 1, pp. 59-68.

Kim, W., Jeong, O.-R. and Lee, S.-W. (2010), "On social Web sites", *Information Systems*, Vol. 35, No 2, pp. 215-236.

Kozinets, R. V., De Valck, K., Wojnicki, A. C. and Wilner, S. J. S. (2010), "Networked Narratives: Understanding Word-of-Mouth Marketing in Online Communities", *Journal of Marketing*, Vol. 74, No 2, pp. 71-89.

Kumar, S., Zafarani, R. and Liu, H. I. A. (2011), "Understanding user migration patterns in social media", in Proceedings of the 25th AAAI Conference on Artificial Intelligence, San Francisco, California.

Lehdonvirta, V. (2009), "Virtual item sales as a revenue model: identifying attributes that drive purchase decisions", *Electronic Commerce Research*, Vol. 9, No 1-2, pp. 97-113.

Leimeister, J. M. and Krcmar, H. (2004), "Revisiting the Virtual Community Business Model", in Proceedings of the Americas Conference on Information Systems, New York, NY.

Lepak, D. P., Smith, K. G. and Taylor, M. S. (2007), "Value Creation and Value Capture: a Multilevel Perspective", *Academy of management review*, Vol. 32, No 1, pp. 180-194.

Lusch, R. F. and Vargo, S. L. (2006), "Service-dominant logic: reactions, reflections and refinements", *Marketing Theory*, Vol. 6, No 3, pp. 281-288.

Markus, M. L. (1987), "Toward a "Critical Mass" Theory of Interactive Media", *Communication Research*, Vol. 14, No 5, pp. 491-511.

Martin, C. L. (1998), "Relationship marketing: a high-involvement product attribute approach", *Journal of Product & Brand Management*, Vol. 7, No 1, pp. 6-26.

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

Meents, S. (2009), *The influence of sellers and the intermediary on buyers' trust in C2C electronic marketplaces*, Rozenberg Publishers, Amsterdam, Netherlands.

Merriam, S. B. (2009), *Qualitative research: A guide to design and implementation*, John Wiley & Sons, New York, NY.

- Moon, J. Y. and Sproull, L. (2001), "Turning Love into Money: How some firms may profit from voluntary electronic customer communities" (working paper), Stern School of Business, New York, NY.
- Muniz Jr, A. and O'Guinn, T. C. (2001), "Brand Community", *Journal of Consumer Research*, Vol. 27, No 4, pp. 412-432.
- Nambisan, S. (2002), "Designing virtual customer environments for new product development: Toward a theory", *Academy of management review*, Vol. 27, No 3, pp. 392-413.
- Nambisan, S. and Baron, R. A. (2007), "Interactions in virtual customer environments: Implications for product support and customer relationship management", *Journal of Interactive Marketing*, Vol. 21, No 2, pp. 42-62.
- Nielsen (2012), "Global Trust in Advertising and Brand Messages" (report). Available at: <http://fi.nielsen.com/site/documents/NielsenTrustinAdvertisingGlobalReportApril2012.pdf> (accessed: January 6, 2014)
- O'sullivan, S. R., Richardson, B. and Collins, A. (2011), "How brand communities emerge: The Beamish conversion experience", *Journal of Marketing Management*, Vol. 27, No 9-10, pp. 891-912.
- Ogawa, S. and Pongtanalert, K. (2013), "Exploring Characteristics and Motives of Consumer Innovators: Community Innovators vs. Independent Innovators", *Research-Technology Management*, Vol. 56, No 3, pp. 41-48.
- Pai, P. Y. and Tsai, H. T. (2011), "How virtual community participation influences consumer loyalty intentions in online shopping contexts: An investigation of mediating factors", *Behaviour and Information Technology*, Vol. 30, No 5, pp. 603-615.
- Prahalad, C. K. and Ramaswamy, V. (2004), "Co-creation experiences: the next practice in value creation.", *Journal of Interactive Marketing*, Vol. 18, No Summer, pp. 5-14.
- Preece, J. (2001), "Sociability and Usability in Online Communities: Determining and Measuring Success", *Behavior and Information Technology Journal*, Vol. 20, No 5, pp. 347-356.
- Preece, J. and Maloney-Krichmar, D. (2003), "Online Communities: Focusing on Sociability and Usability", In: Jacko, J. & Sears, A. (Eds.), *Handbook of Human-Computer Interaction*, Lawrence Erlbaum Associates Inc. Publishers, Mahwah, pp. 596-620.
- Preece, J., Maloney-Krichmar, D. and Abras, C. (2003), "History of Online Communities", In: Levinson K. & Levinson, D. (Eds.) *Encyclopedia of Community: From Village to Virtual World*, Thousand Oaks: Sage Publications, pp. 1023-1027.
- Preece, J., Nonnecke, B. and Andrews, D. (2004), "The top five reasons for lurking: improving community experiences for everyone", *Computers in Human Behavior*, Vol. 20, No 2, pp. 201-223.
- Rheingold, H. (1993), *The Virtual Community: Homesteading on the Electronic Frontier*, Addison-Wesley Publishing, Reading, MA.

- Romero, D. and Molina, A. (2011), "Collaborative networked organisations and customer communities: value co-creation and co-innovation in the networking era", *Production Planning & Control*, Vol. 22, No 5-6, pp. 447-472.
- Sangwan, S. (2005), "Virtual Community Success: A Uses and Gratifications Perspective", in Proceedings of the 38th Annual Hawaii International Conference on System Sciences, Waikoloa, Hawaii, USA.
- Sawhney, M., Verona, G. and Prandelli, E. (2005), "Collaborating to create: The Internet as a platform for customer engagement in product innovation", *Journal of Interactive Marketing*, Vol. 19, No 4, pp. 4-17.
- Saxton, G. D., Oh, O. and Kishore, R. (2013), "Rules of Crowdsourcing: Models, Issues, and Systems of Control", *Information Systems Management*, Vol. 30, No 1, pp. 2-20.
- Schau, H. J., Jr, A. M. M. and Arnould, E. J. (2009), "How Brand Community Practices Create Value", *Journal of Marketing*, Vol. 73, No 5, pp. 30-51.
- Spaulding, T. J. (2010), "How can virtual communities create value for business?", *Electronic Commerce Research and Applications*, Vol. 9, No 1, pp. 38-49.
- Strauss, A. and Corbin, J. (1990), *Basics of Qualitative Research: techniques and procedures for developing grounded theory*, Sage, Thousand Oaks, CA.
- Timmers, P. (1998), "Business Models for Electronic Markets", *Electronic Markets*, Vol. 8, pp. 3-8.
- Trusov, M., Bucklin, R. E. and Pauwels, K. (2009), "Effects of Word-of-Mouth versus Traditional Marketing: Findings from an Internet Social Networking Site", *Journal of Marketing*, Vol. 73, No 5, pp. 90-102.
- Vargo, S. L. and Lusch, R. F. (2004), "Evolving to a New Dominant Logic for Marketing", *Journal of Marketing*, Vol. 68, No 1, pp. 1-17.
- Vargo, S. L., Maglio, P. P. and Akaka, M. A. (2008), "On value and value co-creation: A service systems and service logic perspective", *European Management Journal*, Vol. 26, No pp. 145- 152.
- Wang, Y. and Fesenmaier, D. R. (2003), "Assessing Motivation of Contribution in Online Communities: An Empirical Investigation of an Online Travel Community", *Electronic Markets*, Vol. 13, No 1, pp. 33-45.
- Wasko, M. M. and Faraj, S. (2005), "Why Should I SHARE? Examining Social Capital of Knowledge Contribution in Electronic Networks of Practice", *MIS Quarterly*, Vol. 29, No 1, pp. 35-57.
- Wellman, B., Salaff, J., Dimitrova, D., Garton, L., Gulia, M. and Haythornthwaite, C. (1996), "Computer Networks as Social Networks: Collaborative Work, Telework, and Virtual Community", *Annual Review of Sociology*, Vol. 22, No pp. 213-38.
- Whitla, P. (2009), "Crowdsourcing and Its Application in Marketing Activities", *Contemporary Management Research*, Vol. 5, No 1, pp. 15-28.

Wikstrom, S. (1996), "The customer as co-producer", *European Journal of Marketing*, Vol. 30, No 4, pp. 6-19.

Williams, R. and Cothrel, J. (2000), "Four Smart Ways To Run Online Communities", *Sloan Management Review*, Vol. 41, No 4, pp. 81-91.

WOMMA (2005), " Word of Mouth 101: An Introduction to Word of Mouth Marketing" (white paper). Available at: http://www.nick-rice.com/docs/Word_of_Mouth_101_WOMMA.pdf (accessed: January 7, 2014)

Woodruff, R. B. and Flint, D. J. (2006), "Marketing's service-dominant logic and customer value", In: Lusch, R. F. & Vargo, S. L. (eds.), *The service-dominant logic of marketing: Dialog, debate, and directions*, M.E. Sharpe, New York, NY, pp. 183-195.

Wu, C.-G., Gerlach, J. H. and Young, C. E. (2007), "An empirical analysis of open source software developers' motivations and continuance intentions", *Information & Management*, Vol. 44, No 3, pp. 253-262.

Yahia, I. B. (2007), "Non Commercial B2C Virtual Communities: Definition and Classification an Exploratory Qualitative Study", *IADIS International Journal on WWW/Internet*, Vol. 5, No 1, pp. 129-144.

Appendix A – List of online communities studied

Community	Web address	Last access
99designs	99designs.com	December 23, 2013
Adegga***	addega.com	December 23, 2013
Airbnb	airbnb.com	December 23, 2013
Amazon Customer Communities	www.amazon.com	December 23, 2013
Amazon's mTurk	mturk.com	December 23, 2013
Android Open-Source Project	source.android.com	December 23, 2013
Apple User Groups	www.apple.com/usergroups/	December 23, 2013
Artfire	artfire.com	December 23, 2013
Bebo	bebo.com	December 23, 2013
Blackberry Community	supportforums.blackberry.com	December 23, 2013
BlackPlanet	blackplanet.com	December 23, 2013
Blogger	blogger.com	December 23, 2013
Chef Online (on Facebook)***	www.facebook.com/chefonline	December 23, 2013
Cisco	communities.cisco.com	December 23, 2013
Copious	copious.com	December 23, 2013
CrowdCube	crowdcube.com	December 23, 2013
Crowdspring	crowdspring.com	December 23, 2013
Del.icio.us	delicious.com	December 23, 2013
Dell Community	community.dell.com	December 23, 2013
Digg	digg.com	December 23, 2013
Disabled Community	disabledcommunity.com	December 23, 2013
Ebay	ebay.com	December 23, 2013
Entropia Universe	entropiauniverse.com	December 23, 2013
Epinions	epinions.com	December 23, 2013
Etsy	etsy.com	December 23, 2013
Facebook	www.facebook.com	December 23, 2013
Flickr	flickr.com	December 23, 2013
Forumotion	forumotion.com	December 23, 2013
GetAround	getaround.com	December 23, 2013
GodTube	godtube.com	December 23, 2013
Harley Owners Groups	http://www.harley-davidson.com	December 23, 2013
HabboHotel	www.habbo.com	December 23, 2013
Hi5	http://www.hi5.com/	December 23, 2013
HomeBaseHolydays	www.homebase-hols.com	December 23, 2013
HomeExchange	homeexchange.com	December 23, 2013
IdeaStorm	www.ideastorm.com	December 23, 2013
IMVU	imvu.com	December 23, 2013
Innocentive	www.innocentive.com	December 23, 2013
Instagram	instagram.com	December 23, 2013

iStockphoto	www.istockphoto.com	December 23, 2013
JeepForum	www.jeepforum.com	December 23, 2013
Kitchenet***	kitchenet.aeiou.pt	December 23, 2013
LendingClub	www.lendingclub.com	December 23, 2013
LinkedIn	www.linkedin.com	December 23, 2013
Linksys	community.linksys.com	December 23, 2013
Lomography	http://www.lomography.com/	December 23, 2013
Lugnet	www.lugnet.com	December 23, 2013
Meetup	www.meetup.com	December 23, 2013
Microsoft Community	http://answers.microsoft.com	December 23, 2013
My Space	myspace.com	December 23, 2013
MyStarbucksIdea	http://www.starbucks.com/coffeehouse/learn-more/my-starbucks-idea	December 23, 2013
Niketalk	niketalk.com	December 23, 2013
Ning	www.ning.com	December 23, 2013
oDesk	www.odesk.com	December 23, 2013
Orkut	www.orkut.com	December 23, 2013
Pampers Community	community.pampers.com	December 23, 2013
PinkBlue Community***	foruns.pinkblue.com	December 23, 2013
Pinterest	www.pinterest.com	December 23, 2013
Prosper	www.prosper.com	December 23, 2013
Quora	www.quora.com	December 23, 2013
Reddit	www.reddit.com	December 23, 2013
RelayRides	relayrides.com	December 23, 2013
Relvado	www.relvado.sapo.pt	January 15, 2014
RentaCoder	www.rent-acoder.com	December 23, 2013
Sell.com	www.sell.com	December 23, 2013
SlideShare	www.slideshare.net	December 23, 2013
Snapgoods	snapgoods.com	December 23, 2013
Taobao	www.taobao.com	December 23, 2013
The Well	www.well.com	December 23, 2013
Threadless	www.threadless.com	December 23, 2013
TopCoder	www.topcoder.com	December 23, 2013
TripAdvisor	www.tripadvisor.com	December 23, 2013
Ultima Online	www.uo.com	December 23, 2013
VideoHive	videohive.net	December 23, 2013
Vimeo	www.vimeo.com	December 23, 2013
Vocalpoint	www.vocalpoint.com	December 23, 2013
Vobis (on Facebook)***	www.facebook.com/Vobispt?fref=ts	December 23, 2013
vSide	www.vside.com	December 23, 2013
Wikia	www.wikia.com	December 23, 2013

Wikipedia	www.wikipedia.org	December 23, 2013
Wikispaces	www.wikispaces.com	December 23, 2013
WordPress	wordpress.com	December 23, 2013
World of Warcraft	battle.net/wow	December 23, 2013
Worten (on Facebook)***	www.facebook.com/wortenpt	December 23, 2013
YahooAnswers	answers.yahoo.com	December 23, 2013
Yelp	yelp.com	December 23, 2013
YouTube	youtube.com	December 23, 2013
Zilok	us.zilok.com	December 23, 2013
Zoosk	www.zoosk.com	December 23, 2013
Zopa	www.zopa.com	December 23, 2013
Zwame***	forum.zwame.pt ***	December 23, 2013

*** Portuguese communities whose managers were interviewed

Chapter 4: Antecedents and Consequences of Participation in Company Social Networks

Paper II

Understanding Participation in Company Social Networks¹

Abstract

Although previous research has studied online communities (OCs), specific research on the particular phenomenon of company social networks (CSNs) - which constitute people connected to a company or brand through a social networking site - is still scarce.

This article seeks to contribute to a better understanding of CSNs, characterizing them and providing details regarding participation factors. To this end, the research addresses both participation goals and CSN attributes that drive participation in CSN.

With a grounded theory approach, this research begins with an exploratory study of the page maintained by a large retailer for six months, followed by a qualitative study featuring in-depth individual interviews and focus groups with 26 members of the CSN.

The results highlight differences between CSN and other types of online communities. Members rely on the company to help them achieve their goals; few count on their CSN peers, with whom they maintain weak ties. Unlike in brand communities, most members are not enthusiasts but instead engage in a pragmatic relationship with the brand.

CSNs can create value for both the host company and its members; active management is necessary to unlock that potential. The implications for CSN management include strategies to foster participation and increase value for companies and members.

Keywords—social networks; brand community; online community; service-related online communities; company social networks

¹ This is an extended version of the paper published in the Journal of Service Management. Martins, C.S. and Patrício, L. (2013), "Understanding Participation in Company Social Networks", *Journal of Service Management*, Vol. 24, No 5, pp. 567-587.

1. Introduction

Among emergent online social tools, or social media, perhaps the most preeminent are social network sites (SNS)—online platforms on which users can create profiles and build personal networks for communicating and exchanging content (Boyd and Ellison, 2007; Lenhart and Madden, 2007). Initially SNS supported only individual profiles; more recently, businesses also have developed their own pages and formed networks of followers. Such networks constitute Company Social Networks (CSNs) and have notable business potential. In the United States alone, 20% of the time consumers spend on their computers focuses on SNS (Nielsen, 2012), and 87% of Facebook users are connected to some brand (Lab42, 2012). Thus service providers need to know how to manage the value of their CSNs for both the business and members. More than just trying to create an interesting page, companies seek to understand the mechanisms of consumers' CSN participation.

Social media and customer communities represent service research priorities (Ostrom et al., 2010). However, despite considerable research into various forms of online groups, the CSN phenomenon remains relatively novel, and CSN-specific research is scarce. By adopting a qualitative approach guided by grounded theory, we explore factors that drive participation in CSNs. From these study results, we also draw implications for CSN management and service research. Accordingly, in the next section, we define and conceptualize the CSN concept, followed by a review of relevant extant research. Our research design involved an exploratory study, following the evolution of a CSN over six months, and a qualitative study based on in-depth interviews. After we review our study findings, we discuss our contributions and implications for CSN design and management.

2. Conceptual Foundations

Company Social Networks

Companies attempt to build or foster online communities (OCs) to add value, though these efforts frequently fail to meet business objectives (Preece et al.,

2004). The emergence of SNSs prompted major changes in companies' customer relationships by enabling the development of CSNs, especially in service contexts, where service providers frequently develop direct relationships with customers. We define CSN as a group of people (followers, fans, or some other term, according to the website terminology) connected to a company or brand within the boundaries of an SNS. These networks offer content and activities centered on the company brand or core offering, though some companies develop them around a related, more highly involving subject, such as when food retailers develop their CSNs around cooking.

Similar to other online groups, CSNs are socio-technical systems, that is, social systems operating on a technical basis (Whitworth and De Moor, 2003). They also have technical and social particularities. Technically, CSNs differ from other company-hosted OCs, because they develop within SNS pages. Some SNSs, such as Facebook and Twitter, enable the creation of business pages, distinct from personal pages, with features to serve companies' needs explicitly. These pages, managed by the host companies, usually are more open and visible to all SNS users, with distinct spaces for static information about the company and for interactions with and among followers. When users join a CSN, they start receiving company updates on their personal page streams, without needing to visit the CSN page again. Finally, page features and customization options vary widely across different SNSs

While CSN technical characteristics are clear, emerging social phenomena are rarely studied. The social organization of CSN depends primarily on the platform, which promotes some communication forms and constrains others. For example, CSN pages favor interactions between the company and its followers but not links among followers. To achieve a clearer conceptualization of CSN, we need to clarify their specific participation mechanisms and the extent to which they differ from previously studied brand and OCs.

Whereas CSN and brand community (BC) are distinct concepts, they both develop around a brand. As defined by Muñiz and O'Guinn (2001, p. 412), a BC is a "specialized, non-geographically bound kind of consumer community, based on a structured set of social relationships among admirers of a brand, which is

marked by a shared consciousness, rituals and traditions, and a sense of moral responsibility.” In contrast, a CSN is mainly defined by its structure, whatever the feelings of its members toward the brand or community. Unlike BCs, members of CSNs may or may not be brand admirers, linked by a sense of community. However, due to the scarce literature focused on participation in CSN (Jahn and Kunz, 2012; Pletikosa Cvijikj and Michahelles, 2013), our literature review encompasses research on participation in OCs, BCs, and SNSs - all concepts closely related to CSN that have been studied more widely in recent years.

Participation in Online Communities

Extant literature on OCs spans various forms of company-hosted and consumer-managed OCs but highlights two main concepts: members’ participation goals and OC attributes that drive their participation. Goals lead people to participate, according to the benefits that they expect to gain; attributes are the characteristics of the OC that affect this participation. For example, members may start to participate in an OC to gather information about a disease (goal), and then their perceptions of the OC’s trustworthiness (attribute) influences their ultimate level of participation. After some time in the OC, if they perceive the information they receive as unreliable, they likely reduce their visits or abandon the OC.

Significant research regarding the goals of participation relies on uses and gratifications theory (Katz et al., 1973), according to which people use media to gratify their needs and achieve their goals. Specifically, people participate in OCs (Dholakia et al., 2004) to (1) obtain useful information to solve a problem; (2) understand and develop salient aspects of their selves; (3) establish and maintain contact with others; (4) gain social reputations; or (5) have fun, enjoyment, and relaxation. In company-hosted OC, material rewards also may be a motivation (Antikainen and Väättäjä, 2010; Hennig-Thurau and Walsh, 2003). Some studies (Constant et al., 1996; Wasko and Faraj, 2000) suggest that OC members are not solely moved by the fulfillment of individual needs but also by a sense of moral obligation. With regard to OC attributes that influence

participation, research is prolific, from varied scientific fields and addressing many different kinds of OC, as we summarize in Table 1.

Participation in Brand Communities

Ouwensloot and Odekerken-Schröder (2008) propose four consumer motivations to join BCs: (1) to reduce uncertainty about product quality by sharing experiences with other members or directly contacting the company, (2) to intensify the experience of consumption of a high-involvement product, (3) to live up the brand's symbolic function, and (4) to jointly consume products that must be consumed in group rather than individually. For convenience products, these motives do not apply, so material incentives, such as free products, coupons, or points, may be the most effective means to draw members to company-hosted BCs (Sicilia and Palazón, 2008).

Because BCs are not geographically bound, most of them maintain an online presence (managed by either members or the company). Factors that affect participation in OCs also tend to apply to BCs (Table 1). However, to understand participation in online BCs, we need to account for brand-related factors too (Table 2). Previous research indicates that consumers' positive perceptions of the brand are associated with higher levels of active participation (Nambisan and Baron, 2007) and consumer-brand identification increases their willingness to interact with other consumers who share the same enthusiasm (Algesheimer et al., 2005). Füller et al. (2008) find that brand trust influences willingness to engage in open innovation projects for that brand; Wiertz and Ruyter (2007) conclude that consumers who are more committed to the host firm make higher quality contributions.

Participation in Social Networking Sites

Since their emergence, various exploratory studies have sought to determine why people participate in SNSs. Keeping in contact with others appears to offer the main rationale. Studies consistently report that people participate in SNS to interact with those with whom they share an offline connection, rather than to meet new people (e.g., Ellison et al., 2007; Raacke and Bonds-Raacke, 2008; Urista et al., 2007).

Table 1: Factors of participation in online communities

Outcomes of community membership		
Functional benefit	Personal gains regarding information usefulness, convenience, and time saving, derived from community membership.	Jin et al., 2010; Li, 2011
Cognitive / learning benefits	Personal gains in knowledge and understanding about something as a consequence of community membership.	Nambisan and Baron, 2007
Personal integrative benefits	Personal gains in reputation, status, and self-efficacy resulting from community membership.	Nambisan and Baron, 2007
Social integrative benefits	Development/maintenance of social relationships through community membership.	Jin et al., 2010; Nambisan and Baron, 2007
Hedonic benefits	Enjoyment and fun as a result of community membership.	Chiu et al., 2011; Nambisan and Baron, 2007
Interaction-generated affect	Positive affective states that a person derives from taking part in the community.	Bagozzi and Dholakia, 2006; Nambisan and Baron, 2007
Outcomes of active participation		
Personal outcome (general)	General positive personal gains (recognition and respect, making friends, better cooperation) of active participation	Hsu et al., 2007; Yu et al., 2010
Social approval	Other members' positive responses to a member's contributions.	Li, 2011
Sense of positive self-worth	Sense of value that a person gets by sharing knowledge with others.	Chiu et al., 2011
Enjoyment	Positive feelings as a consequence of active participation.	Füller et al., 2008; Koh and Kim, 2003; Yu et al., 2010
Professional development	Problem-solving capability and job performance development as a consequence of knowledge sharing and participation.	Lin et al., 2009

Recognition for member contribution	Degree of monetary or psychological reward gained through proactive membership.	Antikainen and Vääätäjä, 2010; Jang et al., 2008; Kang et al., 2007; Kim et al., 2008; Li, 2011
Value of contribution to others	General positive consequences for the other community members derived from individual participation.	Arakji et al., 2009; Li, 2011
Community platform/system attributes		
System quality	Extent to which the community platform is reliable, accessible, fast, and adaptable.	Jang et al., 2008; Lin, 2008
Usability	Extent to which a system is effective, efficient, and safe to use; has good utility; is easy to learn; and is easy to remember.	Jin et al., 2010
Support for member communication	Extent to which the system enables communication and interaction among members.	Kang et al., 2007; Kim et al., 2008; Wang and Fesenmaier, 2003
Sociability	Extent to which a system effectively supports social interaction, by upholding the community purpose, the target population, and social policies.	Jin et al., 2010
Social presence	Extent to which the community platform promotes members' feeling of being with one another.	Shen and Khalifa, 2008
Privacy	Degree to which the community platform enables an individual to control, manage and, selectively reveal personal information.	Wu et al., 2010
Information attributes		
Information quality	Extent to which the information created within the community is accurate, up to date, complete and presented in an adequate format.	Lin, 2008; Yoo et al., 2002
Information usefulness	Degree to which the information created within the community is valuable to its members.	Koh et al., 2007
Communication / interaction attributes		
Reciprocity	Extent to which a contribution to the community leads to future returns from the community.	Cheung and Lee, 2007; Lin et al., 2009; Wasko and Faraj, 2005

Responsiveness	Timeliness and quantity of responses to questions.	Joyce and Kraut, 2006; Ridings et al., 2002; Wise et al., 2006
Interactivity/ Level of communication	Degree of information exchange among community members.	Casaló et al., 2008; Jang et al., 2008; Kang et al., 2007; Wise et al., 2006; Wu, 2005
Private information sharing	Perceived willingness of members to divulge personal information.	Ridings et al., 2002
Freedom of expression	Degree to which the expression of diverse opinions is allowed within the community.	Kang et al., 2007; Kim et al., 2008
Openness	Freedom and encouragement of sharing.	Yu et al., 2010
Fairness/justice	Degree to which members are treated fairly within the community.	Chiu et al., 2011; Yu et al., 2010
Shared language and shared vision	Degree to which community members use common jargon, patterns of communication, and narrative forms and have common goals and interests.	Chiu et al., 2006
Community Management		
Managing strategy	Clarity of purpose, rationality of rules and roles, frequency and quality of events and rituals, and diversity of subgroups.	Yoo et al., 2002
Leader enthusiasm	Leader involvement in community building, visioning, and caring for other members.	Koh and Kim, 2003
Purpose	Existence of a well-defined subject that forms the basis of community interaction.	Kang et al., 2007; Kim et al., 2008
Moderation	Presence of a moderator with normative functions such as keeping a conversation on topic and preventing harmful attacks.	Wise et al., 2006
Offline interaction	Existence of community interaction beyond the online environment.	Koh et al., 2007; Koh and Kim, 2003

Self-presentation (Nadkarni and Hofmann, 2012), entertainment or filling free time (e.g., Barker, 2009; Ellison et al., 2007; Pempek et al., 2009), and learning new information about other users (Pempek et al., 2009; Urista et al., 2007) also drive participation. Johnson and Yang (2009) note that Twitter members use it mainly as a content aggregator, such that members they follow mainly represent information sources.

Table 2: Factors of participation in brand communities

Perceived brand image	Degree to which a community member perceives the brand as highly reputed, distinctive, impressive, quality-conscious, and customer-friendly.	Nambisan and Baron, 2007
Product involvement	Perceived importance of the product, based on member's inherent interests.	Nambisan and Baron, 2007
Brand knowledge	Degree of subjective consumer knowledge about a brand.	Algesheimer et al., 2005; Füller et al., 2008
Consumer-brand identification	The extent to which the consumer identifies with a brand or views his or her self-image as close to the brand image.	Algesheimer et al., 2005
Host firm/ brand commitment	Individual psychological attachment to the firm/brand that translates into willingness to keep a relationship with it.	Kim et al., 2008; Wiertz and Ruyter, 2007
Brand passion	Highly affective positive relationship with a specific brand that influences consumer behavior toward it.	Füller et al., 2008
Brand trust	Degree to which a community member believes that the brand keeps its promises regarding performance.	Füller et al., 2008

Both large and small service companies are creating CSNs, often without any clear understanding of the related phenomena. Creating value for both customers and the company first requires attracting members; once they become members, it requires promoting their participation and leading them to spend time and effort with the community (Wiertz and Ruyter, 2007). Therefore, from a managerial perspective, a deeper understanding of what leads SNS users to join and participate in CSNs should help service providers devise

strategies for creating and managing CSNs that increase their value creation potential. This understanding also holds interest for researchers, who can use it to develop a thorough conceptualization of this new phenomenon. Insights from extant research on participation in OCs, BCs, and SNSs may be useful, yet the particular phenomenon of CSN is understudied. To enhance such understanding, we address a core question: What factors lead people to join and continuously participate in CSNs? This overall research question comprises two, more specific research questions:

RQ1: What goals lead SNS users to join and continuously participate in CSNs?

RQ2: What are the perceived CSN attributes that drive participation?

3. Research Design

Because CSNs are understudied, we adopted a qualitative research approach, which tends to be appropriate when the concepts regarding a given phenomenon have not been identified or the relationships between concepts are poorly understood (Strauss and Corbin, 1990). From among the different qualitative methods, we selected grounded theory to derive general, abstract theory grounded in data. This process of constant comparison enabled us to compare all new data iteratively with earlier data, supporting the emergence of categories and their progressive refinement toward higher degrees of abstraction (Glaser and Strauss, 1967; Strauss and Corbin, 1990).

In addition to adopting the fundamental tenets of grounded theory, we assumed a contemporary perspective (Charmaz, 2006), through three elements of our research approach. First, we followed Strauss and Corbin's (1990) guidelines for data collection and analysis flexibly. Second, we regarded grounded theory development as a constructive process, incompatible with the possibility of a neutral observer (Kelle, 2005), and embraced the use of our own experiential data, including personal experience, technical knowledge, and research-based experience (Strauss, 1987). We thus applied an abductive method (Charmaz, 2006; Reichertz, 2007; Richardson and Kramer, 2006), not a purely inductive method (as in the initial formulation of grounded theory). Third, we undertook our literature review and its systematization only in the

final stages of analysis, to avoid seeing the study topics through the lens of extant theories and to allow categories to emerge (Glaser and Strauss, 1967). However, we were less radical than Glaser (1998), who avoided any literature review before the final stages of data analysis. Our literature review started before the data collection and continued throughout the research process, offering a way to identify gaps and stimulate theoretical sensitivity, as recommended by Strauss and Corbin (1990).

To gain an initial understanding of the phenomenon, we conducted an exploratory study and followed a CSN page for its first six months of existence, before starting interviews with members. The CSN belonged to a European retail company (hereafter, Retailer). Unlike most companies, Retailer's Facebook page did not focus directly on its brand or core services but instead on a recipe service which is offered within its online store. References to its brand were, however, constant and noticeable on the CSN page. Several reasons led to the choice of this specific CSN. First, retailing constitutes an important empirical ground with the potential to provide insights about a range of other service industries. Simultaneously, the fact that this retailer mostly provides convenience goods and services, also increased its research relevance, as its community creation efforts should be more challenging (Cova, 2006). Finally, the strong potential for growth (considering the Retailer's large size - more than 400 stores, 2.7 million customers) also influenced the choice. The study comprised two complementary parts: an exploratory study of Retailer's Facebook page stream and a qualitative study based on interviews with CSN participants.

3.1. Exploratory Study

For the exploratory study, we followed Retailer's Facebook page stream for the first six months after its launch. Thus we sought an initial understanding of CSN participation that also provided a basis for identifying participants for the subsequent qualitative study. During the data collection, for each member's active intervention, we registered the date of the contribution, name of the contributor, the content, and the type of contribution (post or comment). With

our manual monitoring process, it was impractical to collect other types of participation, such as 'likes' or 'shares'. The content of each message was coded in different categories.

During the six-month observation period, 2,848 interventions ('posts' or 'comments') appeared on Retailer's CSN page, with an average of 16 per day. However, daily participation was volatile, ranging from 0 to more than 150 active interventions. Contribution peaks normally related to contests. Retailer was responsible for 7.5% of all written participation (mostly posts); messages from fans (mostly comments) represented about 85%. At the end of six months, the CSN page had more than 20,000 followers; about 1,285 (6%) had actively participated at least once. The large majority intervened only once or twice, and 25% of all the written participation was undertaken by just 25 fans. Even the most active users were not constantly active over time but rather appeared more active during the period surrounding a specific activity.

Our analysis of CSN messages revealed that contests were the main lever of participation. That is, most active CSN participation related to contest launches, questions and answers about contests, expressions of willingness to participate, content resulting from contest participation (e.g., photos, videos, written recipes), comments about participation (praise and support, criticisms), indications of winners, and greetings. Other forms of participation were uncommon. Therefore CSN appear to follow a general tendency of participation inequality (Nielsen, 2006), as reported by several authors studying OC (Andrews et al., 2002; Nonnecke and Preece, 2000), such that a few users account for a large proportion of the content. Some specificities emerged though. First, the company was the greatest and most constant contributor. Second, conversations usually were initiated by the company, mostly related to activities that the company promoted. Third, heavy contributors were rare; the intensity of member participation reflected activities promoted by the company, and consequently, they were limited in time. Fourth, dialogues happened predominantly between individual participants and the company. Conversations among multiple participants were rare, and when they happened, they tended to be simplistic forms of support or greetings.

This exploratory study thus enabled us to identify active participants for our focus groups and interviews. We also gained a basic understanding of the phenomenon of CSN, which defined the preparation of our interview protocol. Finally, we obtained important insights regarding the research questions, as an important complement to our qualitative study findings.

3.2. Qualitative Study

Building on the results of the exploratory study, we proceeded with a qualitative study among members of Retailer's CSN, using focus groups and interviews. With this study, we sought an in-depth understanding of participation in CSNs, by identifying member goals that led to and perceived CSN attributes that drove their participation.

Sampling

To select participants, we followed a theoretical sampling procedure, which is a grounded theory tenet, and selected interviewees purposefully to maximize opportunities to discover variations among concepts and ensure dense categories, in terms of properties and dimensions (Strauss and Corbin, 1990). The number and kind of participants to include in the sample was not predetermined. Sampling evolved during the research process, guided by the data analysis results, which arose immediately after the first data were collected.

Our sampling methods reflected our exploratory study findings, which indicated two theoretically relevant groups of active and passive participants. We ensured that the initial sample (participants in two focus groups) included both active and passive participants. In analyzing the focus group data, we attempted to generate as many categories as possible. Thereafter, we returned to the field several times, looking for additional informants whose testimonies could generate new categories and increase the density of existing ones. The sampling process stopped when we achieved theoretical saturation, such that no new conceptual insights were generated in new interviews.

According to our exploratory study, active members did not differ significantly enough in their participation patterns to justify the consideration of more than one theoretical group among active users. These infrequent participants generally just responded to contests. Nevertheless, we purposefully oversampled active participants (noting their 6% proportion in the population), to attain greater variation. Members were “active” if they had contributed at least once to the stream of Retailer’s Facebook page, with posts or comments. The sample for the qualitative study thus included 15 active participants: 8 who had participated once, 3 who had participated twice, 1 who participated eight times, 1 who participated nine times, and 1 who participated twelve times (all infrequent, over the six-month study period). The most frequent active participant also appeared in this group; this person participated more than 40 times.

The identification of passive participants was not possible through the exploratory study, because these members were not visible through inspection of the CSN page. Therefore, we posted a general open call on Retailer’s CSN page, then asked our own acquaintances to identify any members of this CSN in their lists of friends, whom we invited to participate. The final sample included 26 participants (15 active), aged from 20 to 53 years (average = 31) and including 17 women, with 92% of them having higher education.

Data Collection and Analysis

The qualitative study involved both focus groups and in-depth interviews. First, we collected data through two focus groups, lasting an average of three hours each, with five and six participants. The 15 in-depth, semi-structured interviews lasted an average of one hour each, 12 carried out in person and 3 via Skype. The interviews and focus groups followed similar protocols. Although the sample was selected among the participants of Retailer’s CSN, we also aimed for a broader understanding of general CSN phenomena. Therefore, the protocol questions first centered on Retailer’s CSN, but we also asked the participants to think about other three or four CSNs they connected to and answer similar questions about them.

All the focus groups and interviews were recorded and transcribed. The content analysis of the transcriptions relied on NVivo. With our grounded theory approach, data collection and analysis occurred in alternating sequences (Strauss and Corbin, 1990). The analysis of each interview started with open coding procedures, in which we broke the data down into smaller units of meaning, guided by the research questions (Saldana, 2009), and attributed codes to them. By collecting new data and constantly comparing concepts, we discovered commonalities and progressively aggregated them into more abstract, comprehensive categories, as we show in Figure 1.

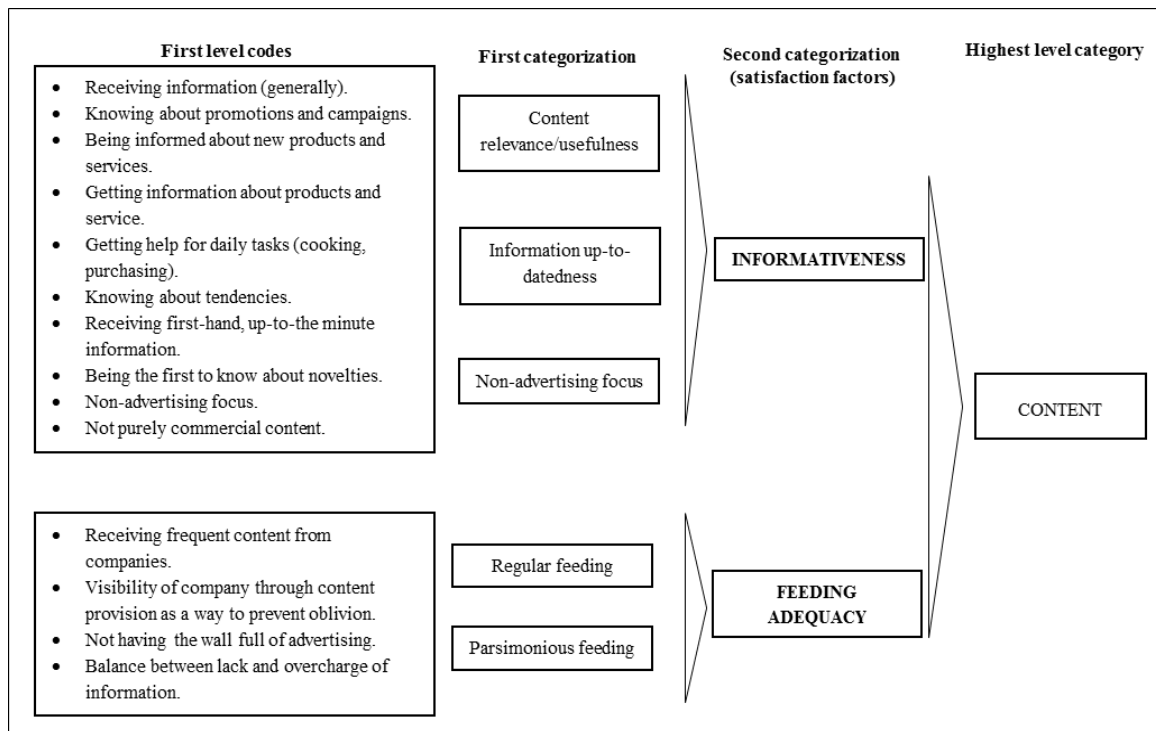


Figure 1: Example categorization process, leading to the identification of CSN attributes that drive participation

4. Results

The qualitative study revealed multiple factors of participation in CSNs, including both member goals and CSN attributes that drive participation.

Member Goals

Goals refer to the expected benefits that lead people to participate in CSNs. We use the term 'participation' broadly, to refer to any possible contact with the CSN. At the beginning of this study, we identified two main participation patterns: active, which implies some action visible to others, and passive, which includes all contacts with the CSN that leave no trace. Becoming a member, sharing content with friends, and posting or commenting on the CSN page are examples of active participation; visiting the page or reading a post constitute passive participation. Passive participants, commonly called lurkers (Nonnecke and Preece, 2000), consume content without contributing. However, in CSNs, some members are even more passive than traditional lurkers, in that they contact the CSN when they became members but do not regularly consume content thereafter.

Our data analysis unveiled five core goals that led to CSN participation (Table 3): getting information, self-expressing, participating in activities, contacting the company, and complying with friends. These goals are not mutually exclusive, and participation in a CSN may result from more than one goal. However, a single goal tends to prevail.

This study corroborates recent findings on SNS usage, which show that members use SNS more for their informational value than for their social value (Johnson and Yang, 2009). That is, getting information was the most mentioned goal driving participation. Generally, participants wanted to be informed about companies' offerings, launches, and promotions. Although much of the information conveyed by companies could be found by other means too, the advantage of the CSN was that it provided up-to-date information effortlessly, directly to their personal pages. Some respondents noted that when they needed information, such as contact details or an address, they preferred to visit its Facebook page rather than to the company's website. However, whereas previous research has shown that in OCs and BCs, most knowledge results from continued customer interaction (Nambisan and Baron, 2007), we find that in CSNs, members expect relevant information to be created mostly by the host company.

Table 3: Goals of participation in CSN

Goals	%	Definitions and Quotes	Type of Participation
1. Getting information	88%	<p>Definition: Participating (passively) in the CSN to consume static and dynamic content related to the company and/or the CSN subject.</p> <p>“New information ... such as ‘we have this new product’ or ‘we have this campaign’ (male, 33 years)</p>	<ul style="list-style-type: none"> • Joining the CSN • Frequent passive participation
2. Self-expressing	62%	<p>Definition: Joining the CSN as a way of completing a member’s personal profile and communicate something about oneself, such as taste or a personality trait.</p> <p>“Sometimes, people click ‘like’ on Facebook to add some information to their personal profile ... in order to make their tastes known to...” (female, 22 years old)</p>	<ul style="list-style-type: none"> • Joining the CSN
3. Participating in activities	46%	<p>Definition: Actively participating in the activities (contests, games, polls...) launched by the company.</p> <p>“At first, I only became a fan of the Retailer on Facebook in order to be able to participate in that (cooking) contest” (male, 30 years old)</p>	<ul style="list-style-type: none"> • Joining the CSN • One-off or occasional active participation
5. Contacting with the company	23%	<p>Definition: Actively participating in the CSN to directly address the company, either to question about services and products or to comment on experiences with the company.</p> <p>“I remember once, I had a doubt about choosing the right product for my hair, thus I did the question to “brand name” directly on their Facebook page” (female, 25 years old)</p>	<ul style="list-style-type: none"> • Joining the CSN • Occasional active participation
6. Complying with friends	61%	<p>Definition: Joining a CSN simply to respond to a SNS friend request.</p> <p>“As I have a lot of “friends” on Facebook, I receive many invitations to become fan of several things... Sometimes I accept ... I remember having become a fan of a shoes brand just to help a friend in a contest” (female, 37 years old)</p>	<ul style="list-style-type: none"> • Joining the CSN

In line with extant literature on motives for participation in BC (Ouwensloot and Odekerken-Shröder, 2008) and SNS usage (Nadkarni, 2012), our results show that CSN members use membership to create an image of themselves for others, which reflects self-expressing. A significant number of participants reported that they joined CSNs to express their consumption habits (e.g., “to say that I normally use that brand”) and experiences (e.g., “to tell others that I went to that restaurant and I liked it”). Some also noted that they indirectly revealed something about their personality or lifestyle. Regarding identity-related benefits, existing literature indicates that participation in many OC, such as support and open innovation communities, can lead to personal or reputational gains (Lakhani and Von Hippel, 2003; Wang and Fesenmaier, 2003). Whereas in traditional OC this reputation comes from intense activity helping the community, in a CSN, one click is enough. From the moment someone joins a CSN, it becomes part of her or his personal profile, available to her or his personal network, which supports self-expressing.

Participants also reported that their active participation in CSNs related to participating in activities promoted by the host company, such as contests and games. Some refer to themselves as ‘contest hunters’, always abreast of every contest within SNS. In the exploratory study, we observed that members also participated as voters or commentators on others’ participation. Few respondents reported participating in small involvement activities without any prize (e.g., polls). In OC literature, contests constitute a common means to foster innovation activities in user communities (e.g., Bullinger et al., 2010; Füller et al., 2008). Most activities promoted by companies in CSNs fail to generate new ideas or useful content. In some cases, they seem only weakly connected to the CSN’s focus. Rather, their only purpose is to involve members with prizes or enjoyment.

Several participants reported using or expecting to use CSNs to contact the host company to ask for information about products and services or publicly talk about their experience with that company. For example, one participant joined a CSN only to complain about a service. According to extant literature, the ability to contact the company for support constitutes a secondary driver of

participation in BC (Ouwersloot and Odekerken-Shröder, 2008), for which chances to connect with other users, free of commercial contamination, is a more important driver (Moon and Sproull, 2001).

Finally, complying with friends triggered participation, a novel finding compared with OC and BC research. Companies frequently launch activities that require players to recruit friends to become CSN members. Because joining a CSN demands little effort, when invited by a friend, participants often accept, either out of politeness or in the hope of future reciprocation.

CSN Attributes that Drive Participation

Some CSN attributes enable members to achieve the goals that led them to (actively or passively) participate. Higher perceptions of these attributes should correspond to greater participation in the CSN, whether in the form of more members or a higher degree of member involvement (i.e., time spent in either active or passive contact with the CSN). The study results indicated nine CSN attributes that drive participation, as in Table 4. Eight factors constitute four broader areas—content, activity, communication, and social image—and one factor—thematic consistency—was independent.

Content: Feeding adequacy and Informativeness

Feeding adequacy implies a balance in the quantity and frequency of information. The results highlight users' need for visible, regular, but not excessive updates. Members expect content to be informative, which means different from mass media advertising, relevant, up-to-date, and supportive of daily tasks. Reinforcing the distinctiveness of CSNs, they almost exclusively mentioned content created by the company, rather than content created by their CSN peers.

Activity: Extrinsic and intrinsic rewards for participation

The possibility of a prize (material extrinsic reward) was clearly a lever of active participation in CSN activities. However, the results also indicated that CSN members participated actively to gain intrinsic rewards. Activities are internally rewarding when participating generates positive feelings, such as enjoyment (Ryan and Deci, 2000). In this study, participants associated positive feelings

and joy with activities that entailed the application of skills they liked to put into practice, such as cooking or writing poems.

Social image: CSN self-expressiveness and Reputation

When asked to identify some CSNs to which they belonged, participants focused on several specific categories, such as clothing, accessories, cars, mobile phones, and electronic games. Participants also mentioned well-known brands with strong images and therefore more self-expressive potential. Some participants also expressed concern about the favorability of the image of the brand, product, or service. They avoided joining CSNs with reputations that could be perceived negatively by their social connections.

Communication: Openness and Responsiveness

Interviewees valued unprecedented opportunities to interact with companies in a direct, easy, informal way through CSN pages. The analysis of participants' statements showed that members valued openness and the means to participate freely, without censorship. Members expressed very negative perceptions of companies that prevented CSN members from posting complaints or deleted such comments. Along with openness, participants expected the company to be responsive, answering CSN members' questions and demands.

Thematic consistency

Finally, participants stressed that they frequently joined CSNs because of their interest in that specific brand, service, or topic. Therefore, they expected the CSN content and activities to be consistent with the relevant theme. From their perspective, if content and activities were thematically consistent with the company's offer, the content was more useful and the activities more interesting.

Table 4: CSN attributes driving participation

CSN Dimension	Attribute		Definition and Quotes
CONTENT	Feeding adequacy	46%	Balance in terms of quantity and frequency of content provision in the CSN page. Noticeable presence through regular, but parsimonious feeding. “If a company that I ‘like’ doesn’t post any information, I simply ‘unlike’ it!” (female, 53 years old) “If I opened my page on Facebook and it was full of advertising, I would start ‘unliking’ them” (female, 34 years old) “I think there always has to be a balance.... The brand can neither be invisible, nor abusive and suffocating (male, 30 years old)
	Informativeness	88%	Relevance and up-to-datedness of content. Content ability to help people on daily life activities (e.g. purchase decision). (Talking about a restaurant CSN) “I like to receive the daily menu to choose the best days to lunch there” (male, 27 years old) “By being connected to those brands, I like to think that I am one of the first to know about their novelties” (female, 41 years old) “I don’t like when companies assume a purely commercial attitude” (male, 33 years old)
ACTIVITY	External reward of participation	50%	Likelihood of getting a material (a prize) or non-material return (such as a compliment) as a consequence of active participation. “I ended up gaining 3 vouchers to buy cat food.... I like all kinds of contests where there is a real possibility of gaining something” (male, 30 years old) “When you participate, they [Retailer CSN managers] are always giving you feedback... such as ‘great, we liked it very much’. Unfortunately, that does not happen with many brands” (male, 33 years old)
	Internal reward of participation	42%	Likelihood of experiencing positive feelings, such as enjoyment, by actively participating in the CSN activities. “There are certain challenges that companies launch on Facebook that don’t interest me... even if they have a good prize.... I am interested in challenges where I can feel effectively committed” (male, 33 years old) “I do not remember what the prize was... but I love writing poems ... the contest consisted of creating a poem for Saint Valentine’s Day. So, I got to participate” (female, 41 years old)

CSN Dimension	Attribute		Definition and Quotes
SOCIAL IMAGE	Self-expressiveness	42%	Ability of the product, service or brand to which a CSN is anchored, to communicate something about a member of that CSN “In these cases, it is more because of the brand, of the ‘label.’ For instance, Levis and Adidas are brands I like a lot, and normally I like to use. I liked them on Facebook much more as a badge. I like it but I am not expecting anything besides that. I like to have those brands on my profile because I like them...” (male, 30 years old)
	Reputation	31%	Ability of a product, service or brand to which a CSN is anchored to convey a desired self-image and avoid communicating aspects that a person believes others would deem negative. “You can even like it [company/brand], but if you think that most people do not like it and see it negatively, you might refuse to follow it ... just because!” (male, 36 years old)
COMMUNICATION	Openness	23%	Freedom of expression within the CSN. CSN members’ permission to post any type of comment or question, either positive or negative. “I would like to be able to give my suggestions about changes, about how some things could be different, using the brand’s Facebook page” (female, 41 years old) “I think they answered me inadequately, as if I was offending the company. I was misinterpreted ... I was just exchanging information with them, not offending them, and I think that they have to accept it” [referring to critiques of the company’s high prices compared with its competitors’] (female, 53 years old)
	Responsiveness	38%	Ability to react timely and appropriately to CSN members’ interventions, such as doubts and complaints. “If I had a question about something related to the company, I would like to be able to put the question on Facebook and receive an answer.” (female, 20 years old)
THEMATIC CONSISTENCY	Thematic Consistency	15%	Perceived or expected congruence between the company’s offer and the CSN’s content and activities. “I cannot understand why a page on Facebook on cooking can do that... Probabilities and calculations [demanded by the contest] are not to my head. I would participate only if the competition had involved cooking” (male, 22 years old)

Patterns of participation in CSNs

The identification of the drivers of participation in CSNs enabled the development of a theoretical classification of members according to two axes: (1) activity status - active vs passive; (2) and stickiness degree - time a participant spends in contact with the CSN (see figure 2). Taking into account these two factors, four theoretical types of CSN members emerged: (i) *enthusiasts*; (ii) *information seekers*; (iii) *players*; (iv) and *compliant members*.

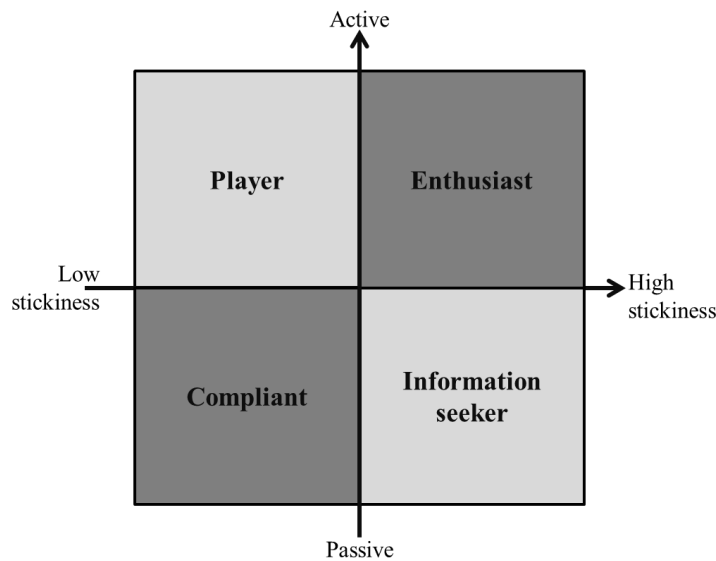


Figure 2: Classification of CSN members according to participation patterns

(i) *Enthusiasts* are frequent and engaged participants. The exploratory study showed they are rare and may be inexistent in some CSNs. Enthusiasts are passionate for the subject matter, which may be either the actual brand or a related topic that attracted them to the CSN, so, besides participating actively, they devote some of their time to read community created content. Enthusiasts value the feeling of proximity to the host company from which they expect personal attention and feedback. In this context, their satisfaction is significantly influenced by provision of relevant information and engaging activities.

(ii) *Information seekers* are, at some points, similar to enthusiasts: they have a real interest in the CSN and devote some of their time to it. However study results showed they are lurkers, i.e, they read CSN page content but

they do not usually make contributions. Generally, they expect that communication is essentially unidirectional, i.e. from the company to their CSN members. Their satisfaction is mainly dependent on the relevance and usefulness of content. Information seekers, along with enthusiasts, are very interesting targets for company communication, because....

(iii) *Players* are active members who typically have a feeble relationship with the host company, whose activity derives mostly from the goal of playing and getting prizes, even if there is no other significant connection to the CSN. They are frequently one-off active participants that have little or no interest in the content created within it. In the study, several interviewees who fall into this category reported they had only joined and participated the community to participate in some contests.

(iv) Finally, *compliant members* are those who accept to be part of a CSN without having any real interest in it. They solely join to comply with someone's request such as voting for a friend in a contest. Several interviewees that fall into the group of compliant members disregard CSN content. Interviews revealed that, in some cases, they even forget they are connected to it.

From a business perspective, information seekers and especially enthusiasts seem to be the members with the most significant potential for value co-creation. Differently from the remaining types of members, they participate in CSNs aiming at longer-term gains. However, the value of players and compliants should not be underestimated. Increasing brand awareness, developing closer relationships with consumers and improving the effectiveness of communication are some benefits of drawing these kinds of members to CSNs.

5. Research and Managerial Implications

This study contributes to a more in-depth understanding of the CSN phenomenon. Due largely to their technical platforms, CSNs tend to be sparsely connected networks with minimal interaction among members. They are united by a common connection to a company or brand; this connection is not

necessarily characterized by enthusiasm or admiration. Our study shows that the host company is usually the most active participant, whereas members' participation generally entails a reaction to the company's interventions.

Participation goals are similar to those found in OC: People join CSNs for informational, social, hedonic, and material reasons. However, the process required to achieve these benefits in CSNs is specific, in that members mostly count on the host company and very rarely on their CSN peers, with whom they appear less willing to develop social relationships. Simultaneously, diverse goals that lead people to join CSNs highlight their differences from traditional online BCs. Many consumers who join CSN are not brand enthusiasts who feel linked by a sense of community; instead, they express more pragmatic relationships (as customers) with the company or even have no connection with it outside the CSN.

We found that CSNs usually lack highly involved members (active and persistent over time). In essence, members view CSNs as company websites with dynamic features, not as collectives of people with a common interest. On the one hand, the most involved members mainly seek information. They constantly follow the CSN but also tend to behave as lurkers. On the other hand, those who join and actively participate are frequently people with a weak or no relationship with the company, whose decision to join results from their desire to participate in a contest. Moreover, several members join the CSN to please others but completely neglect CSN content and activity.

Thus CSNs create new challenges for companies. Attracting new members may be relatively easy, but engaging even a few members is hard. It is important to keep answering the demands of all CSN members. Even without highly involved members, CSNs are a privileged communication medium for companies. In contrast with traditional media, receiving content is a personal choice for consumers, so these messages have a greater chance of reaching their targets. Thus CSNs can be a fruitful field for promoting companies' offerings and developing a good brand image. However, to exploit CSN potential fully, it is vital for companies to strive for content quality, connected with the company offer and feeding adequacy, to maintain member interest. Contests and games

can help them attract more fans, either directly, by drawing people to participate, or indirectly, by creating contests in which players collect votes or recruit a certain number of friends. After joining the CSN, even weak ties have the potential to grow stronger.

To increase member involvement, companies should try to create a clear community purpose and foster interactions among members and with the company. An appropriate use of customization options can make CSN pages more encouraging of interactions. Interactions among CSN members then have the potential to generate useful consumer-created content and promote a sense of community. Stimulating activities related to the CSN's main focus may be an effective way to involve members, especially those who are more affectively connected to the CSN brand or subject. It also can lead to the creation of useful content.

A second CSN challenge involves managing this new communication channel, through which consumers communicate directly with companies in a public space. On the one hand, it offers new opportunities for improving the service provided by the company. On the other hand, in this uncontrolled communication environment, new concerns arise. Messages exchanged publicly on CSNs likely reach a large audience, especially considering our findings that people want to be heard in CSNs and that removing or disregarding their messages sparks negative perceptions. Promoting openness and responsiveness are more appropriate behaviors, even when dealing with undesirable messages.

6. Conclusions and Further Research

Despite increasing interest in CSNs, companies may not be taking full advantage of this phenomenon, largely because they lack a good understanding of CSN participation mechanisms. By addressing relevant research questions, this study has identified several goals that lead members to participate in CSNs, as well as CSN attributes that affect participation. We thus offer a better understanding of this phenomenon and provide a basis for further research. Building on our qualitative study results, we also suggest implications for CSN practitioners and managers.

In terms of further research, we note that we asked our interviewees to refer to several CSNs of their choice, but all participants were members of the same CSN (the Retailer CSN), and they inevitably placed a greater emphasis on it. Yet CSNs are spreading to encompass a wide range of services (e.g., health care). Understanding CSNs in diverse contexts thus appears important for ensuring a more comprehensive view of the phenomenon.

Although they constitute different dimensions, CSN attributes that drive participation relate intimately to participation goals. Our study results indicate that the attributes that are most valued by CSN members depend on the main goals they want to achieve through their participation. When someone participates in a CSN mainly to get information, content informativeness tends to be a very important CSN attribute to her or him. The relationship between members' goals and CSN attributes thus deserves further attention.

Following from our qualitative approach, we hope quantitative studies explore the impact of CSN attributes on behavioral intentions toward the CSN. Because CSNs are associated with a company, it is also important to understand the impact of CSN participation on members' relationships with the company or brand, across various service contexts. Quantitative studies might be able to identify distinct member segments, according to their different participation goals and the CSN attributes they value most. Such insights might specify each member's value creation potential and help define segment-specific strategies. Even if the technical platforms change, the social phenomenon of CSN should tend to persist. This study provides a more in-depth understanding of the factors of participation in CSNs, to advance research in this area and help companies define their strategies in this new context. However, CSNs remain a novel area of research; we hope our suggestions of research directions foster additional investigations in this field.

References

- Algesheimer, R., Dholakia, U. M. and Herrmann, A. (2005), "The social influence of brand community: evidence from European Car Clubs", *Journal of Marketing*, Vol. 69, No 3, pp. 19-34.
- Andrews, D., Preece, J. and Turoff, M. (2002), "A conceptual framework for demographic groups resistant to on-line community interaction." *International Journal of Electronic Commerce*, Vol. 6, No 6, pp. 9-24.
- Antikainen, M. and Väättäjä, H. (2010), "Rewarding in open innovation communities: How to motivate members?", *International Journal of Entrepreneurship and Innovation Management*, Vol. 11, No 4, pp. 440-456.
- Arakji, R., Benbunan-Fich, R. and Koufaris, M. (2009), "Exploring contributions of public resources in social bookmarking systems", *Journal of Decision Support Systems*, Vol. 47, No 3, pp. 245-253.
- Bagozzi, R. and Dholakia, U. (2006), "Antecedents and purchase consequences of customer participation in small group brand communities", *International Journal of Research in Marketing*, Vol. 23, No 1, pp. 45-61.
- Barker, V. (2009). "Older adolescents' motivations for social network site use: the influence of gender, group identity, and collective self-esteem", *Cyberpsychology & Behavior*, Vol. 12, No 2, pp. 209-213.
- boyd, d.m. and Ellison, N. B. (2007), "Social network sites: Definition, history, and scholarship." *Journal of Computer-Mediated Communication*, Vol. 13, No 1, Art. 11.
- Bullinger, A. C., Neyer, A.-K., Rass, M. and Moeslein, K. M. (2010). "Community-based innovation contests: where competition meets cooperation". *Creativity and Innovation Management*, Vol. 19, No 3, pp. 290-303.
- Casaló, L., Flavián, C. and Guinalú, M. (2008), "Promoting consumer's participation in virtual brand communities: a new paradigm in branding strategy", *Journal of Marketing Communications*, Vol. 14, No 1, pp. 19 - 36.
- Charmaz, K. (2006), *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis*, Sage, London, UK.
- Cheung, C. and Lee, M. (2007), "What drives members to continue sharing knowledge in a virtual professional community? The role of knowledge self-efficacy and satisfaction", In: *Knowledge Science, Engineering and Management*, Springer Berlin Heidelberg, pp. 472-484.
- Chiu, C.-M., Hsu, M.-H. and Wang, E. (2006), "Understanding knowledge sharing in virtual communities: An integration of social capital and social cognitive theories", *Decision Support Systems*, Vol. 42, No 3, pp. 1872-1888.
- Chiu, C.-M., Wang, E., Shih, F.-J. and Fan, Y.-W. (2011), "Understanding knowledge sharing in virtual communities: An integration of expectancy disconfirmation and justice theories", *Online Information Review*, Vol. 35, No 1, pp. 134 -153.

Constant, D., Sproull, L. and Kiesler, S. (1996), "The kindness of strangers: the usefulness of electronic weak ties for technical advice", *Organization Science*, Vol. 7, No 2, pp. 119-135.

Cova, B. and Pace, S. (2006), "Brand community of convenience products: new forms of customer empowerment – the case of 'my Nutella The Community'", *European Journal of Marketing*, Vol. 40, Nos 9-10, pp. 1087-1105.

Dholakia, U. M., Bagozzi, R. P. and Pearo, L. K. (2004), "A social influence model of consumer participation in network- and small-group-based virtual communities", *International Journal of Research in Marketing*, Vol. 21, No 3, pp. 241-263.

Ellison, N. B., Steinfield, C. and Lampe, C. (2007). "The benefits of Facebook 'friends': social capital and college students' use of online social network sites". *Journal of Computer-Mediated Communication*, Vol. 12, No 4, pp. 1143-1168.

Füller, J., Matzler, K. and Hoppe, M. (2008), "Brand community members as a source of innovation", *Journal of Product Innovation Management*, Vol. 25, No 6, pp. 608-619.

Glaser, B. G. (1998), *Doing Grounded Theory: Issues and Discussions*, Sociology Press, Mill Valley, CA.

Glaser, B. and Strauss, A. (1967), *The Discovery of Grounded Theory: Strategies for Qualitative Research*, Aldine Transaction, New Brunswick, NJ.

Hennig-Thurau, T. and Walsh, G. (2003), "Electronic word of mouth: motives for and consequences of reading customer articulations on the Internet". *International Journal of Electronic Commerce*, Vol. 8, No 2, pp. 51-74.

Hsu, M.-H., Ju, T. L., Yen, C.-H. and Chang, C.-M. (2007), "Knowledge sharing behavior in virtual communities: The relationship between trust, self-efficacy, and outcome expectations". *International Journal of Human-Computer Studies*, Vol. 65, No 2, pp. 153-169.

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

Jang, H., Olfman, L., Ko, I., Koh, J. and Kim, K. (2008), "The influence of on-line brand community characteristics on community commitment and brand loyalty", *International Journal of Electronic Commerce*, Vol. 12, No 3, pp. 57-80.

Jin, B., Park, J. Y. and Kim, H.-S. (2010), "What makes online community members commit? A social exchange perspective", *Behaviour and Information Technology*, Vol. 29, No 6, pp. 587-599.

Johnson, P. R. and Yang, S. (2009), "Uses and gratifications of Twitter: An examination of user motives and satisfaction of Twitter use", paper presented at the Communication Technology Division of the Annual Convention of the Association for Education in Journalism and Mass Communication, Boston, MA. Available at: <https://umdrive.memphis.edu/cbrown14/public/Mass%20Comm%20Theory/Week%207%20Uses%20and%20Gratifications/Johnson%20and%20Yang%202009%20Twitter%20uses%20and%20grats.pdf> (accessed April 23, 2013)

- Joyce, E. and Kraut, R. (2006), "Predicting continued participation in newsgroups", *Journal of Computer-Mediated Communication*, Vol. 11, No 3, No 3, pp. 723-747.
- Kang, I., Lee, K. C., Lee, S. and Choi, J. (2007), "Investigation of online community voluntary behavior using cognitive map", *Computers in Human Behavior*, Vol. 23, No 1, pp. 111-126.
- Katz, E., Blumer, J. and Gurevitch, M.(1973), "Uses and gratifications research", *Public Opinion Quarterly*, Vol. 37, No 4, pp. 509-523.
- Kelle, U. (2005), "'Emergence' vs. 'forcing' of empirical data? A crucial problem of 'grounded theory' reconsidered", *Forum: Qualitative Social Research*, Vol. 6, No 2, Art. 27.
- Kim, J. W., Choi, J., Qualls, W. and Han, K. (2008), "It takes a marketplace community to raise brand commitment: the role of online communities", *Journal of Marketing Management*, Vol. 24, No 3-4, pp. 409-431.
- Koh, J. and Kim, Y.-G. (2003), "Sense of virtual community: a conceptual framework and empirical validation", *International Journal of Electronic Commerce* Vol. 8, No 2, pp. 75-94
- Koh, J., Kim, Y.-G., Brian Butler and Bock, G.-W. (2007), "Encouraging participation in virtual communities". *Communications of the ACM*, Vol. 50, No 2, pp. 69-73.
- Lab42 (2012), "Like us", available at: <http://lab42.com/infographics/like-us> (Accessed April 23, 2013).
- Lakhani, K. R. and Von Hippel, E. (2003), "How open source software works: 'free' user-to-user assistance". *Research Policy*, Vol. 32, No 6, pp. 923-943.
- Lenhart, A. and Madden, M. (2007), "Social networking websites and teens: an overview". Available at: http://www.pewinternet.org/~media/Files/Reports/2007/PIP_SNS_Data_Memo_Jan_2007.pdf.pdf (accessed April 24, 2012)
- Li, X. (2011), "Factors influencing the willingness to contribute information to online communities", *New Media and Society*, Vol. 13, No 2, pp. 279-296.
- Lin, H.-F. (2008), "Determinants of successful virtual communities: contributions from system characteristics and social factors", *Information and Management*, Vol. 45, No 8, pp. 522-527.
- Lin, M. J., Hung, S. W. and Chen, C. J. (2009), "Fostering the determinants of knowledge sharing in professional virtual communities", *Computers in Human Behavior*, Vol. 25, No 4, pp. 929-939.
- Moon, J. Y. and Sproull, L. (2001), Turning love into money: how some firms may profit from voluntary electronic customer communities. In: P. Lowry, Cherrington, J. & Watson, R. (eds.) *Electronic Commerce Handbook: Issues, Technology and Society*. Portland: CRC Press.
- Muniz, Jr., A. and O'Guinn, T. C. (2001), "Brand community", *Journal of Consumer Research*, Vol. 27, No 4, 412-432.

- Nadkarni, A. and Hofmann, S. G. (2012), "Why do people use Facebook?". *Personality and Individual Differences*, Vol. 52, No 3, pp. 243-249.
- Nambisan, S. and Baron, R. A. (2007), "Interactions in virtual customer environments: Implications for product support and customer relationship management", *Journal of Interactive Marketing*, Vol. 21, No 2, pp. 42-62.
- Nielsen (2012), "State of the media: the social media report 2012" (report), Available at: <http://www.nielsen.com/us/en/reports/2012/state-of-the-media-the-social-media-report-2012.html> (Accessed April 23, 2013).
- Nielsen, J. (2006), "Participation inequality: encouraging more users to contribute". Available at: http://www.useit.com/alertbox/participation_inequality.html (Accessed April 24, 2012).
- Nonnecke, B. and Preece, J. (2000), "Persistence and lurkers in discussion lists: a pilot study", in Proceedings of the 33rd Annual Hawaii International Conference on System Sciences in Maui, Hawaii, 4-7 January, Vol. 3, pp. 3031.
- Ostrom, A. L., Bitner, M. J., Brown, S. W., Burkhard, K. A., Goul, M., Smith-Daniels, V., Demirkan, H. and Rabinovich, E. (2010), "Moving forward and making a difference: research priorities for the science of service", *Journal of Service Research*, Vol. 13, No 1, pp. 4-36.
- Ouwensloot, H. and Odekerken-Schröder, G. (2008), "Who's who in brand communities—and why?". *European Journal of Marketing*, Vol. 42, No 5/6, pp. 571-585.
- Pempek, T. A., Yermolayeva, Y. A. and Calvert, S. L. (2009), "College students' social networking experiences on Facebook". *Journal of Applied Developmental Psychology*, Vol. 30, No 3, pp. 227-238.
- Pletikosa Cvijikj, I. and Michahelles, F. (2013), "Online engagement factors on Facebook brand pages". *Social Network Analysis and Mining*, Vol. 3, No pp. 1-19.
- Preece, J., Schubert, P. and Tan, Y.-H. (2004), "Online communities in the digital economy", in Proceedings of the 37th Annual Hawaii International Conference on System Sciences in Big Island, Hawaii, 5 January.
- Raacke, J. and Bonds-Raacke, J. (2008), "MySpace and Facebook: applying the uses and gratifications theory to exploring friend-networking sites". *Cyberpsychology & Behavior*, Vol. 11, No 2, pp. 169-174.
- Reichertz, J. (2007), "Abduction: the logic of discovery of grounded theory". In: Bryant, A. & Charmaz, K. (eds.) *Handbook of Grounded Theory*, Sage, London, UK.
- Richardson, R. and Kramer, E. H. (2006). "Abduction as the type of inference that characterizes the development of a grounded theory", *Qualitative Research*, Vol. 6, No 4, pp. 497-513.
- Ridings, C. M., Gefen, D. and Arinze, B. (2002), "Some antecedents and effects of trust in virtual communities", *Journal of Strategic Information Systems*, Vol. 11, No 3-4, pp. 271-295.

- Ryan, R. M. and Deci, E. L. (2000), "Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions". *Contemporary Educational Psychology*, Vol. 25, No 1, pp. 54-67.
- Saldana, J. (2009), *The Coding Manual for Qualitative Researchers*, Sage Publications, London.
- Shen, K. N. and Khalifa, M. (2008), "Exploring multidimensional conceptualization of social presence in the context of online communities", *International Journal of Human-Computer Interaction*, Vol. 24, No 7, pp. 722-748.
- Sicilia, M. and Palazón, M. (2008), "Brand communities on the internet: a case study of Coca-Cola's Spanish virtual community". *Corporate Communications: An International Journal*, Vol. 13, No 3, pp. 255-270.
- Strauss, A. L. (1987), *Qualitative Analysis for Social Scientists*, Cambridge University Press, New York, NY, USA.
- Strauss, A. and Corbin, J. (1990), *Basics of Qualitative Research Techniques and Procedures for Developing Grounded Theory*, Sage, Thousand Oaks, CA.
- Urista, M. A., Dong, Q. and Day, K. D. (2007), "Explaining why young adults use MySpace and Facebook through uses and gratifications theory", *Human Communication*, Vol. 12, No 2, pp. 215 – 229.
- Wang, Y. and Fesenmaier, D. R. (2003), "Assessing motivation of contribution in online communities: an empirical investigation of an online travel community", *Electronic Markets*, Vol. 13, No 1, pp. 33-45.
- Wasko, M. M. and Faraj, S. (2000), "'It is what one does': why people participate and help others in electronic communities of practice", *Journal of Strategic Information Systems*, Vol. 9, No 2-3, pp. 155-173.
- Wasko, M. M. and Faraj, S. (2005), "Why should I share? Examining social capital of knowledge contribution in electronic networks of practice", *MIS Quarterly*, Vol. 29, No 1, pp. 35-57.
- Whitworth, B. and De Moor, A. (2003), "Legitimate by design: towards trusted socio-technical systems", *Behaviour & Information Technology*, Vol. 22, No 1, pp. 31-51
- Wiertz, C. and Ruyter, K. D. (2007), "Beyond the call of duty: why customers contribute to firm-hosted commercial online communities", *Organization Studies*, Vol. 28, No 3, pp. 347-376.
- Wise, K., Hamman, B. and Thorson, K. (2006), "Moderation, response rate, and message interactivity: features of online communities and their effects on intent to participate", *Journal of Computer Mediated Communication*, Vol. 12, No 1, pp. 24-41.
- Wu, J.-J., Chen, Y.-H. and Chung, Y.-S. (2010), "Trust factors influencing virtual community members: A study of transaction communities". *Journal of Business Research*, Vol. 63, Nos 9-10, pp. 1025-1032.

Yoo, W.-S., Suh, K.-S. and Lee, M. B. (2002), "Exploring the factors enhancing member participation in virtual communities", *Journal of Global Information Management*, Vol. 10, No 3, pp. 55-71.

Yu, T.-K., Lu, L.-C. and Liu, T.-F. (2010), "Exploring factors that influence knowledge sharing behavior via weblogs", *Computers in Human Behavior*, Vol. 26, No 1, pp. 32-41.

Appendix A – Interview/Focus Group Protocol

Why do people participate in CSNs?

- Which events triggered the connection to the CSN?
- Which motives / objectives led you to become a member of the CSN?
- What for did you connect to the CSN?
- Which kind of benefits do you think you have for being a member of CSN?

What leads people to remain in CSNs?

- How satisfied are you with your connection to the CSN and why?
- What would increase your satisfaction? What would dissatisfy you?
- What do you like more about being a member of the CSN? What do you like less?
- What could lead you to abandon the CSN?
- What are the strengths and weaknesses of the CSN? If you could, what would you improve?

How do people behave as CSN participants?

- After becoming a member of a CSN what kind of action do you have towards it? For example: Post or comment? Read companies' and other member's posts and comments? Ignore content?
-

What is people's relationship with the company or brand around which CSN is formed?

- How do you relate with the company behind the CSN? For example: Use it? Intend to use it? Desire to use it? Didn't know it? No relationship?

Paper III

Understanding the drivers of participation in Company Social Networks and their impact on satisfaction and loyalty towards the host company

Abstract

This study aims at understanding the antecedents of participation in Company Social Networks (CSNs) and the consequences of that participation on attitudes and behaviors towards the host company.

With that in mind, a conceptual model is proposed and validated through a survey with members of a retailer's CSN. The model entails three different parts. The first is composed by participation factors, comprising member attribute perceptions about the CSN, previously identified through a qualitative study. The second includes participation consequences related to the CSN, entailing attitudes (satisfaction and identification) and behaviors (loyalty) towards the CSN. Finally, the third encloses attitudes (satisfaction) and behaviors (loyalty) towards the host company.

This model posits that more positive perceptions of previously identified CSN dimensions should correspond to higher levels of satisfaction with the CSN and of identification with the CSN community. These will, in turn, positively impact loyalty towards the CSN. Finally, satisfaction and identification towards CSN should have a positive impact on satisfaction with the host-company and loyalty towards the CSN should positively influence loyalty to the company.

The model is tested through survey research with structural equation modeling, with data from a sample of members of a retail company CSN. The results support part of the hypotheses. All CSN dimensions are important to CSN loyalty. However, some lead to loyalty to CSN through the mediation of satisfaction, and others through the mediation of identification. However, while higher satisfaction with CSN corresponds to higher levels of satisfaction with the company, there is no relationship between identification with the CSN and satisfaction with company and there is a poor impact of loyalty towards the CSN in loyalty to the host company. We finally derive some implications from these results.

Keywords – company social networks, participation, value creation, identification, satisfaction

1. Introduction

The growth of *social media* has profoundly changed the way companies and consumers interact (Hanna et al., 2011). Communication that used to be unidirectional from company to the consumer is now totally interactive both among consumers and among consumers and companies (Farquhar and Rowley, 2006, Fisk et al., 2008). Consumers, rather than being mere recipients of information disseminated by marketers, now use the web to express and disseminate their knowledge, experiences and opinions about services and products. As a result, word-of-mouth has become a significant component of online consumer interactions (Valck et al., 2009, Brown, 2006, Brown et al., 2007). Through the social media, companies are now able to receive feedback from customers, and to access a vast amount of information about consumers and their opinions, enabling companies to better understand their needs (Prahalad and Ramaswamy, 2004). Social media also create new points of direct interaction between companies and their customers and new opportunities of value co-creation.

In this context, *company social networks* (CSNs) have become particularly prominent. CSNs can be defined as groups of people connected to a company or a brand, which are hosted within social networking sites (SNS) (Martins and Patrício (2013), such as Facebook, Twitter, YouTube or Pinterest. These CSNs have become an important channel for companies to communicate with consumers and to promote interaction among them. In 2013, more than 15 million businesses were on Facebook (Techcrunch.com, 2013) and about 1800 brands had more than one million fans (Socialbakers.com, 2013). However statistics also indicate that about 70% of those pages were completely inactive (Recommend.ly, 2013). Although a large number of companies have formed their own networks of consumers in SNSs, engaging CSN members and creating value for the host companies still remains a challenge (Hanna et al., 2011).

To attract and engage members, companies need to understand the drivers of participation in CSNs, namely which CSN attributes are most valued by its members. Moreover, creating value for firms entails understanding the

impact of member attitudes and behaviors towards the CSN on attitudes and behaviors towards the company or brand, such as satisfaction and loyalty.

Previous research has addressed antecedents and consequences of participation in social groups of consumers from a business perspective. However, the social phenomena addressed by previous studies are rather distinct from that of CSNs, especially brand communities and user/customer OCs. CSNs and Brand Communities (BCs) are different concepts, although they both usually develop around a brand. Differently from BCs, members of CSNs may or may not be brand enthusiasts linked by a sense of community. CSN is also not a synonym of customer or user community given that a significant number of members may not intend to be customers of the company that hosts the CSN. Moreover, CSNs have very specific social characteristics that derive from their technological platforms, which promote some types of communication and constrain others. Previous studies have found that CSN pages typically favor the interaction between the company and its followers, but not so much among followers (Martins and Patrício, 2013). This paper contributes to fill this gap by developing and empirically testing a conceptual model of the antecedents and consequences of participation in CSNs with members of a large European retailer's CSN, aiming at answering the following research questions:

RQ: What are the dimensions (CSN attributes as perceived by their members) that affect attitudes and participation behaviors in CSNs?

RQ: What is the impact of those attitudes and behaviors towards the CSN on attitudes and behaviors towards the host company?

The structure of the paper follows the research design stages, as shown in Figure 1. In the following section we present the conceptual model and its underpinnings, based on an in-depth qualitative study on CSN participation factors (Martins and Patrício, 2013) combined with literature review.

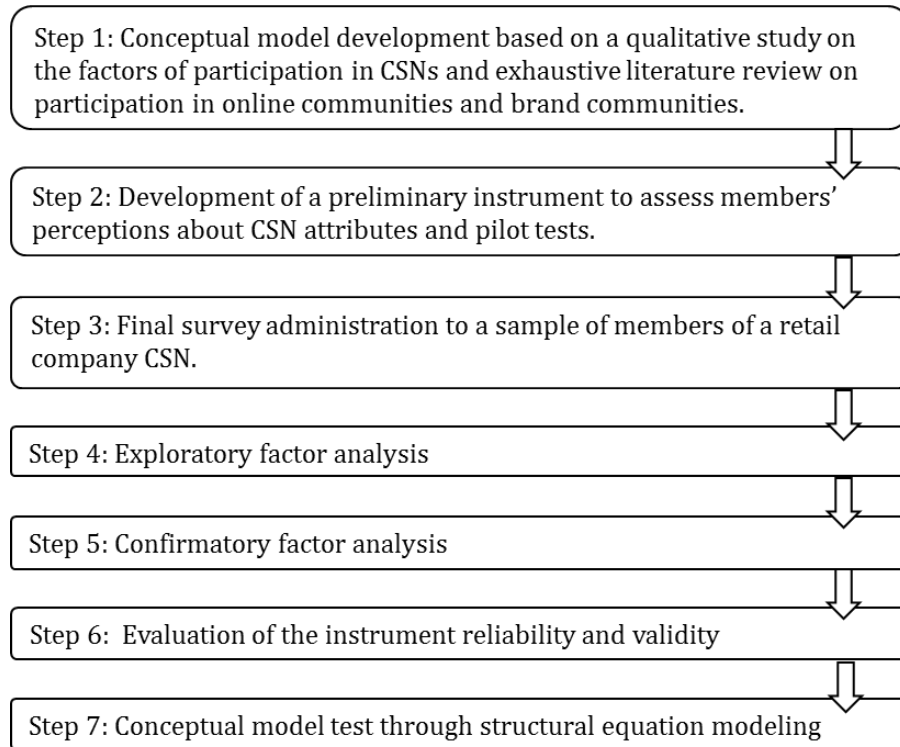


Figure 1: Steps Employed in the Development and Test of the Conceptual Model

The third section describes the operationalization of the conceptual model through a survey questionnaire, and its refinement through exploratory factor analysis and confirmatory factor analysis. The fourth section presents the analysis of structural relationships between member perceptions about CSNs and member responses towards the CSN and towards the host company. The last section discusses research and managerial implications.

2. Development of Conceptual Model

The conceptual model was built upon literature review and a qualitative study that explored factors of consumer participation in CSNs (Martins and Patrício, 2013). This conceptual model posits that factors of participation (i.e. the attributes of CSNs perceived by their members) influence member responses entailing attitudes and behaviors towards the CSN and also the towards the host company. Factors of participation and member responses therefore represent the two main building blocks of the conceptual model, as shown in Figure 2. The

second block is subdivided in two: responses towards the CSN and responses towards the host company. As previous research on CSNs is still scarce, the identification of factors of member participation in CSNs was based on the qualitative study, refined through a comparative analysis of literature on participation in BCs and OCs. The identification of member attitudes towards the CSN and the brand were mainly drawn from literature, as they have been thoroughly studied.

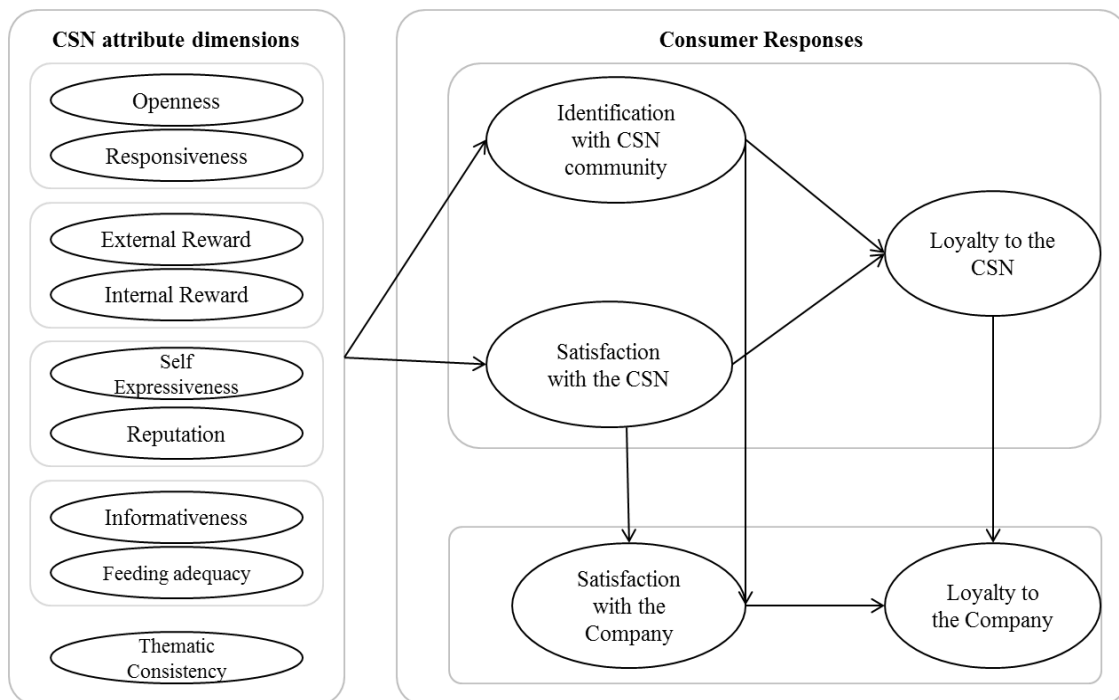


Figure 2: Initial Conceptual Model of antecedents and consequences of participation in CSNs

The conceptual model of member participation in CSNs is based on the principles of means-ends approach (Gutman, 1982). This consumer behavior theory holds that product information is retained in memory at several levels of abstraction, ranging from simple product attributes to perceived value or emotional payoff of the product to the consumer (Olson, 1978, Young and Feigin, 1975, Parasuraman et al., 2005). This in turn, will lead to behavioral intentions. Following this approach, the conceptual model identifies dimension-level perceptions of CSN attributes. These perceptions influence member attitudes and behavioral intentions towards the CSN. One of the main objectives of this study was to understand CSN value creation potential through

satisfaction and loyalty towards the company. As such, another layer was added to the model to test the relationship between attitudes and behaviors towards CSNs and attitudes and behaviors towards the company.

Member perceptions of CSN's attributes

CSNs are still a novel phenomenon and as such literature on participation in CSNs is scarce. Therefore, the identification of CSN attribute dimensions of the conceptual model was based on both (1) a qualitative study to identify CSNs' attributes affecting participation (Martins and Patrício, 2013); and (2) literature review about those factors of participation related to similar social gatherings, namely OCs and in brand communities.

The qualitative study started with an exploratory stage, in which we followed the Facebook page stream of a retail company (hereafter called Retailer) for the first six months after its launch, along which 2848 interventions (posts and comments) were collected. This study supported sample design as it allowed the identification of active participants for the subsequent qualitative study but also enabled a first understanding of the phenomenon of CSNs. The results of the analysis revealed that only a small proportion of members were active; the host-company was the most active member of the CSN; and the activities launched by the host-company were the main lever of member active participation. This exploratory stage was followed by a qualitative study with a Grounded Theory approach (Strauss and Corbin, 1990, Charmaz, 2006), based on focus groups and in-depth interviews with 26 members of the Retailer's CSN. Interviews were audio-recorded and literally transcribed, and were analyzed with the support of NVivo software. This qualitative study enabled the identification of attributes that members value more in CSNs, and their aggregation into higher level dimensions. This process revealed that the CSN attributes that affect member participation could be organized into the nine core dimensions described below.

1) *Informativeness* relevance and up-to-datedness of content (mainly created by the host-company) which translate into content ability to help people in daily life activities, like purchase decisions. Research indicates that getting

information is a key motive to participate in consumer communities (e.g. Wang and Fesenmaier, 2003, Dholakia et al., 2004, Nambisan and Baron, 2007). Previous studies have shown that community-generated information should be accurate, complete, timely, up-to-date and in an appropriate format. These sub-dimensions were found to be antecedents of satisfaction (Lin and Lee, 2006), sense of belonging (Lin, 2008, Yoo et al., 2002) and trust (Elliot et al., in press) towards the community. Other research findings also indicate that content usefulness leads members to be more committed to the community (Jin et al., 2010), to view and explore it more often (Koh et al., 2007) and to be more willing to contribute actively (Li, 2011).

2) *Feeding Adequacy* consists of a host company's noticeable presence through regular, but parsimonious feeding, translated into a balance in terms of quantity and frequency of content provision by the company. On one hand, CSN members want to receive content on their personal pages. On the other hand they do not want to have their pages constantly swamped by posts from the multiple CSNs they joined. This issue has drawn the attention of pioneer OC researchers, whose studies show a need for a balance. In spite of the need for a critical mass of content to attract new members and to encourage existing members to continue participating (Rice, 1990, Markus, 1987, Rafaeli and LaRose, 1993), too much content can have negative effects. Research has shown that in the face of information overload, OC participants tend to either simply end participation or change communicative behavior such as lowering response rates or paying less attention to messages (Jones et al., 2004, Butler, 2001).

3) *Extrinsic reward* of active participation is the likelihood of getting a material (e.g. a prize) or non-material return (e.g. a compliment) as a consequence of active participation. In CSNs, member active participation predominantly consists of participating in the activities, mainly games and contests, promoted by the host-company to attract and engage members. A substantial part of active participation is motivated by material external rewards - mostly prizes that members have a chance of receiving through

participation in those games and contests. Despite the scarcity of previous research on this matter, some studies suggest that *extrinsic rewards* are quite important motivators of participation in company-hosted OCs (e.g. Hennig-Thurau and Walsh, 2003, Antikainen et al., 2010). In OCs whose central focus has a low-involvement character such as a convenience product (Cova and Pace, 2006), attraction and participation continuance of members is especially difficult. In this context, material rewards may be essential to maintain the community alive (Sicilia and Palazón, 2008). However, research also shows that tangible extrinsic rewards have a short-term effect and may even undermine the interest in the activity itself (Kohn, 1993, Deci and Ryan, 1985, Fahey et al., 2007). Investing too much in this kind of incentives may transform participation in OCs in a mere pursuit of rewards, lowering contribution quality (e.g. Fahey et al., 2007). This may be risky especially since content quality is so important within most OCs.

4) *Intrinsic Reward* of active participation is the likelihood of experiencing positive feelings by actively participating in CSN activities. When intrinsically motivated, CSN members participate in the company-promoted activities mostly for enjoyment purposes, and not so much for the prize. Studies in the field of open innovation OCs have shown the particular relevance of intrinsic motivation for the comprehension of active participation. In those studies, people report they contribute with their knowledge to OCs for fun and enjoyment (e.g. Wasko and Faraj, 2000, Yu et al., 2010, Füller et al., 2008), for the challenge of finding solutions and consequent feelings of positive self-worth (Chiu et al., 2011) and of self-efficacy (Kollock, 1999, Wasko and Faraj, 2000, Antikainen et al., 2010).

5) *Self-expressiveness* is the ability of the CSN to communicate something about its members. Extant research states that in SN sites, people present themselves directly through self-description, but also indirectly by associating themselves to services and brands that create self-images to present to others (Schau and Gilly, 2003, Aaker, 1999, Hollenbeck and Kaikati, 2012, Nadkarni

and Hofmann, 2012). Thus, joining a CSN can be an act of self-presentation. Consequently, the capacity of communicating self-image of the brand, service/product, or subject in which the CSN is anchored becomes important. Within each cultural context, people attribute more self-expressive (symbolic) value to certain product categories and brands (Fournier, 1991; Hirschman & Holbrook, 1982). CSNs seem to follow the trend that was already found in brand communities (Cova & Pace, 2006; Muniz Jr & O'Guinn, 2001; Ouwersloot & Odekerken-Schröder, 2008), being more likely to be formed around high involvement products/services and brands with strong image, because of their higher self-expressive potential.

6) *Reputation* is the ability of a product, service or brand to which a CSN is anchored, to convey a desired image and avoid communicating aspects that a person believes others will deem negative. Seeking social approval, people are generally concerned with the way others perceive them. As such they manage their behaviors in order to present favorable and appropriate images of themselves to others (Snyder, 1974, Goffman, 1959). Some recent studies indicate that users of social networking site look for building an ideal social self, by communicating aspects of themselves that they believe to be desirable to others (Krämer and Winter, 2008, Zhao et al., 2008). In CSNs, before becoming a member, people also assess its impact on their social image. As such, they avoid joining CSNs around brands, products or services whose *reputation* may communicate something about them they believe being frowned-upon by their social connections.

7) *Openness* is the free flow of information within the CSN, enabling all members to have the chance to express either positive or negative opinions. In CSNs, members expect to be able to say publicly what they really think within the CSN environment, without the prospect of company manipulation. Some studies have addressed the way members communicate and its influence on participation in different types of OCs (e.g. Joyce and Kraut, 2006, Wise et al., 2006, Burke et al., 2010). Past studies indicate that freedom is particularly

important in the case of company-hosted OCs, where some members may be willing to praise and criticize the host (Kang et al., 2007, Kim et al., 2008).

8) *Responsiveness* is the host company's ability to react timely and appropriately to CSN member interventions, such as questions and complaints. Previous research has shown that the likelihood and speed of a response to a member request from other OC peers (not the company, as in the CSN case) affect member relationship and behavior towards the OC. For instance, Joyce (2006) found that receiving a response to an initial post increases the likelihood to post again. Wise et al. (2006) also observed that an OC with a fast response rate elicits greater intent to participate than an OC with a slow response rate. Research in online brand communities also shows that higher levels of interactive communication among members and between those and the company favor the development of trust (Casaló et al., 2008) and commitment (Jang et al., 2008) towards the community.

9) *Thematic consistency* is the congruence between the content and activities of the CSN and the host-company offering, thus supporting CSN members in their consumption processes. This means that members expect that everything done within the CSN should consistently keep a connection to the company's services or products. To our knowledge, the question of *thematic consistency* in company-hosted consumer communities was never approached in this manner. Nevertheless, some researchers studying member-initiated OCs found that OCs generally have a core purpose that draws members and generate a sense of community (Blanchard and Markus, 2004, Chavis et al., 1986). Content that relates to these topics is perceived as being relevant to the group, whereas "off-topic" messages can be treated as undesirable for not contributing to the group or being distracting. Arguello et al. (2006) found that in Usenet newsgroups, being on-topic increased the likelihood of a reply by about 10%. Literature also suggests that thematic consistency is particularly important in OCs where members are mainly seeking information on a specific subject and

not so much for developing personal relationships (Ren et al., 2007, Sassenberg, 2002).

Member Responses

Consumer responses such as satisfaction and loyalty towards products, services or brands are well studied and empirically tested in literature. As such, the conceptual model includes previously developed measures, which were deemed relevant to the analysis of the impact of member participation in CSNs. The conceptual model includes two types of responses: responses towards the CSN and responses towards the host company.

Attitudes and behaviors towards CSNs

An attitude is a "psychological tendency expressed by evaluating a particular entity with some degree of favor or disfavor" (Eagly & Chaiken, 2007). A person's attitude toward an object is determined by the subjective evaluations of the attributes associated with the object and by the strength of these associations (Fishbein & Ajzen, 1975). Literature (Ajzen & Fishbein, 2005) states that attitudes are good predictors of behavior (as long as the measure of behavior is broadly representative of the attitude domain). Our conceptual model encloses two different attitude variables, which are expected to mediate the relationship between member perceptions of CSN attributes and member loyalty towards the CSN (behavioral response): *identification with the CSN community* and *satisfaction with the CSN*.

Identification: Sharing a common social category with others (e.g., hobby, nationality, or political party) is what normally causes people to categorize themselves as members of a group and to identify with it (Hogg and Abrams, 1988). From this initial conceptualization, social *identification* was thought to include both cognitive and affective components (Johnson et al., 2012, Tajfel, 1978). The cognitive component of identification (self-categorization) is the awareness of one's membership of a social group by means of processes that emphasize both similarities with other members and dissimilarities with non-members (Turner, 1981, Bergami and Bagozzi, 2000). The affective component

(Bateman et al., 2011) is a sense of belongingness and emotional involvement with the group (Ellemers et al., 1999). Identification positively impacts intragroup citizenship and cooperative behaviors (De Cremer and van Dijk, 2002, Kramer and Brewer, 1984). Research regarding OCs indicates that identification is an antecedent of community trust (Hsu et al., 2012), satisfaction with the community (Casaló et al., 2010), desire and intention to participate (Dholakia et al., 2004, Bagozzi and Dholakia, 2002, Zhou, 2010, Cheung and Lee, 2009, Casaló et al., 2010), community engagement (Woisetschläger et al., 2008, Algesheimer et al., 2005, Hsu et al., 2012, Adjei et al., 2010) and content provision (Bateman et al., 2011, Faraj and Wasko, 2001). It is however interesting to note that some studies (Chiu, Hsu, & Wang, 2006; Wasko & Faraj, 2005) with OCs of practice suggest that, in these online groups, identification is a good predictor of contribution quantity but not of contribution quality. Wasko and Faraj (2005) have even found a slight negative impact of attachment to the community in contribution quality.

Satisfaction is defined as customer overall evaluation based on the total purchase and consumption experience with a product, service or brand over time (Johnson & Fornell, 1991). Satisfaction is one of the most important antecedents of consumer loyalty (e.g. Cronin Jr and Taylor, 1992, Yu and Dean, 2001, Anderson and Sullivan, 1993, Taylor and Baker, 1994, Gustafsson et al., 2005). Literature on OCs also suggests that promoting satisfaction is an important step towards the success of a community. Satisfaction is a good predictor of trust in community (Casaló et al., 2008, Wu et al., 2010), intention to continue participating (Cheung and Lee, 2007, Chiu et al., 2011, Lin, 2008, Wu et al., 2007) and actual participation (Valck et al., 2004).

Loyalty is a commitment to a relationship with something or someone. The term loyalty is widely used in the services and marketing literature meaning consumer commitment to a preferred particular brand, product or service that causes repeated purchase/use, despite situational influences and marketing efforts having the potential to cause switching behavior (Oliver, 1999). Loyalty

to the CSN is, based on extant literature (Pai and Tsai, 2011, Zeithaml et al., 1996), assessed through behavioral intentions of participation continuance and advocacy, usually seen as two of the main loyalty manifestations.

Attitudes and behaviors towards the host company

Companies have gradually created CSNs, but their impact on consumer responses towards those companies is still understudied. Literature on brand communities and company-hosted OCs normally points out to a significant impact of attitudes and behaviors towards the OC on attitudes and behaviors towards the brand or company around which the community is developed. For instance, Bagozzi and Dholakia (2006) found that higher levels of participation in a brand community correspond to a higher intensity of brand-related behaviors (more visits to brand seller stores, more purchases, more money spent in brand products). Casaló, Flavián, and Guinaliu (2007) also observed that participation in free software OCs has a positive influence on consumer commitment to free software products.

Although factors of participation in CSNs have already been identified in previous research (Martins and Patrício, 2013), the way they influence participation is still poorly understood. Therefore, the first goal of this study was to understand which factors explain loyalty towards the CSN and which psychological mechanisms mediate the relationship between those factors and loyalty. As research on value creation through CSNs is still scarce, the second objective of this study was to analyze the influence of attitudes and behaviors towards CSNs on satisfaction and loyalty towards the host company.

3. Conceptual model operationalization, refinement and validation

3.1. Development of a preliminary measure to assess member perceptions of CSN attributes

Given the nonexistence of previously validated measures for this specific phenomenon, a survey instrument was developed to assess member perceptions of CSNs. This process followed recommended procedures for

developing and refining measurement scales (Gerbing and Anderson, 1988, Churchill Jr, 1979, Parasuraman et al., 2005).

The dimensions of member perceptions of CSNs identified in the first phase of the study provided a rich ground for the generation of an initial pool of items. To cover the conceptual domain of member assessment of CSNs, 54 items were created covering the nine dimensions previously found. This initial version of the instrument was subject to both qualitative and quantitative pre-testing. First, all the items were discussed with members of the Retailer's departments of Marketing and Innovation, and later with a group of service students. Based on the feedback received, such as lack of clarity, questionable relevance or redundancy, some statements were revised to improve clarity and others were eliminated.

After this stage, an already reduced version of the instrument containing 44 items in Likert response format was administered to a sample of 218 engineering students (106 female, 122 male with an age average of 23,4 years old). To qualify for the study, students had to be members of at least one CSN on Facebook. At the beginning of the questionnaire, participants were instructed to choose one CSN to which they belonged and to answer the questions always referring to that CSN. The data collected was subject to missing value-analysis, which resulted in the elimination of five more items, for having less than 70% of responses (Hair et al., 2010). The data collected were subject to a preliminary exploratory factor analysis to assess scale dimensionality, identifying six dimensions instead of the nine dimensions identified in the qualitative stage. We also conducted a reliability analysis, though Cronbach alpha, by grouping the items according to the six conceptual dimensions that resulted from EFA. Following established scale-development procedures, we considered for possible deletion all items with low item-to-total correlations whose elimination improved reliability, as well as items that did not load clearly in one dimension - either no loadings above .40 (Hair et al., 2010) in any factor or loadings above .40 in more than one factor. The process of deletion of items was however cautious, given the exploratory nature of this survey. At this phase, participants were answering about very distinct CSNs, freely chosen by them, whereas in the

final phase of the study, participants would be all responding regarding the same CSN. Therefore, each item was only deleted if deemed theoretically nonessential. Some items were also rephrased to improve their capability of measuring the corresponding construct. After these procedures, the final scale entailed 35-items.

3.2. Final survey administration

The final questionnaire included three parts. Part 1 comprised the previously developed 35-item measure of members' perceptions of CSNs. Part 2 assessed consumer responses, measured with previous validated scales with slight adaptations (see Appendix A). Finally, part 3 consisted of socio-demographic information. The questionnaire was administered online to the members of the Retailer CSN, using the online survey service Surveygizmo. The Retailer invited all its CSN fans to participate through its page on Facebook, publicizing the survey at three different points in time over the period of two weeks. The invitation included a web link that directed participants to the Surveygizmo website, containing the self-administered questionnaire. To encourage participation, respondents who filled out the surveys were entered in a contest to receive a prize (a tablet PC).

From this process, 667 responses were received. Following missing value analysis, responses with more than 25% of missing values were not included in the sample. The remaining missing values were estimated by means of the expectation-maximization (EM) method (Hair et al., 2010). This process yielded a total of 646 valid responses. Table 1 provides additional sample details. Based on information provided by the host company, sample characteristics were compared with the overall population of members and were found to be not significantly different.

Table 1: Sample Characterization

Age	32.3 (mean)
Gender	80% female
Education	65% higher education
Time as a CSN member	
- less than a month	22%
- from one to six months	36%
- from six months to a year	22%
- more than a year	19%
Reading CSN posts	
- never	1%
- sometimes	31%
- frequently	68%
Visits to CSN page	
- never	2%
- sometimes	53%
- frequently	45%
Active participation in the CSN	
- never	23%
- sometimes	67%
- frequently	10%
Use of company services	
- never	2%
- sometimes	16%
- frequently	82%

3.3. Exploratory Factor Analysis

Exploratory factor analysis (EFA) was performed with the final sample, through principal component analysis, with *Varimax* rotation and eigenvalues > 1 as criterion to determine the number of factors to retain. This EFA corroborated the results of the pilot test, identifying six dimensions of member perceptions of CSNs. The dimensions *feeding adequacy* and *informativeness* collapsed into a unique dimension of *content quality*. The dimensions *extrinsic reward of active participation* and *intrinsic reward of active participation* collapsed into a new dimension of *activity quality*. The dimensions *openness* and *responsiveness* collapsed into one dimension of *communication quality*. The remaining dimensions: *reputation*, *self-expressiveness* and *thematic consistency* remained as separate dimensions. Table 2 contains EFA item loadings higher than .30 and the communalities for each item. Despite the presence of some cross-loadings, all the items had conditions to be retained (Hair et al., 2010, Wolfenbarger and Gilly, 2003): (1) they all loaded .50 or more on one factor, (2) no item loaded more than .50 on two or more factors.

Table 2: EFA Results for the Scale to assess Members' Perceptions about CSNs

	Communality	CQ	EFA Loadings (n=646)					
			R	IQ	SE	AQ	TC	
Opportunity for fans to interact with people with similar interests	.81	.82						
Possibility of exchanging ideas with other fans	.77	.79						
Chance of commenting the own experiences with the company services/products.	.68	.72						
Creation of content by fans that is useful to other fans.	.66	.65						
Availability of knowing other fans opinions about the company services/products.	.64	.60						
Possibility of clearing doubts directly with the company	.67	.56					.37	
Usefulness of the company responses to the fans questions.	.63	.56						
Total openness of participation for all the fans	.57	.52		.40				
Responsiveness (answers or not?) of the company to the fans questions.	.62	.51		.42				
High reputation of the company brand	.82		.84					
Credibility of the company brand	.81		.83					
Strength of the company brand	.67		.77					
Distinctiveness of the company brand	.71		.72					
Quality of products and services of the company brand	.72		.72					
Ability of the company to be in the forefront of innovation	.63		.65					
Sufficiency without excessiveness of the information provided by the	.68			.76				
Up-to-datedness of the information provided by the company	.71			.72				
Adequateness of the frequency of the company posts	.66			.71				
Credibility of the information provided by the company	.60			.65				
Adequate proportion of company advertising	.54			.62				
Relevance of the information provided by the company	.47			.60				
Ability to transmit something positive about a person lifestyle	.84				.85			
Ability to increase the others knowledge about a person	.77				.81			
Ability to transmit something positive about a person	.75				.76			
Ability to express personal tastes	.70				.72			
Ability to express the fan's company/brand esteem	.71				.68			
Attractiveness of prizes in the activities promoted by the company	.80					.82		
Chance of gaining good prizes as rewards for participation	.78					.81		
Enjoyment derived from the participation in the activities	.80					.77		
Interest of the activities promoted by the company	.82					.76		
Prizes as a good incentive to stimulate fans active participation	.77					.75		
Relatedness of the CSN to the company services and products	.71						.77	
CSN as a good service of support to the company customers	.73						.72	
CSN as a mean for helping in a better use of the company services and products	.71	.37					.62	
CSN as support of daily tasks that are related to the company	.71	.35		.35			.61	
Total Variance Explained = 70.43%			Alpha de Cronbach	.93	.92	.87	.91	.93
					.86			

CQ – communication quality; R – reputation; IQ – information quality; SE – self-expressiveness; AQ – activity quality; TC – thematic consistency

Note: Loadings above 0.35 are not shown in the table.

Cronbach alphas (see table 2) along with item-to-total correlations to each dimension were also computed. Additionally, for each dimension, alphas were computed for every possible version with a single item removed. Coefficient alpha values were well above the minimum acceptable value of 0.70 (Nunnally, 1978), and item-to-total correlations always exceeded the minimum recommended of 0.40 (Hair et al., 2010). No item produced the increase in its

sub-scale alpha when removed. These results suggest internal consistency for each dimension.

3.4. Confirmatory factor analysis

Building upon the results of EFA and reliability analysis, the process moved to confirmatory factor analysis (CFA), using IBM SPSS Amos software. This analysis aimed assess whether the underlying factorial structure still held and guide the application of some adjustments if necessary. For this task, a robust maximum likelihood estimation method was employed. Additionally, average variance extracted (AVE) and composite reliability were also computed for each dimension. According to scale development guidelines, several fit indices were used to assess measurement model fit (Hair et al., 2010), namely Goodness-of-fit indices such as Chi-Square, Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Standardized Root Mean Square Residual (SRMR) and Root Mean Squared Error of Approximation (RMSEA).

Goodness-of-fit measures indicated that the measurement model fit was not within the commonly accepted standards. According to the specialized literature, this is not surprising (Brown, 2006). Previous research has shown that researchers frequently encounter poor-fitting CFA solutions in models whose structure was defined based on previously undertaken EFA results. This is mainly due to potential sources of misfit in CFA that are not present in EFA. When this happens, researchers may try to improve the model, following existing guidelines (Hair et al., 2010) such as in other previous studies (e.g. Ho and Lee, 2007, Mathwick, 2002, Laroche et al., 2012). Our approach also followed these guidelines and as such, CFA was applied in an exploratory manner and not exclusively to verify or confirm the hypothesized model (Schmitt, 2011).

Based on the recommendation of Hair et al. (2010), an iterative elimination process was carried out. Relying both on modification indices and/or because of low loadings, a total of seven items were successively deleted from the proposed measurement model. Each time one more item was removed,

goodness-of-fit measures were once again computed. Table 3 presents CFA and EFA results for the whole sample after the deletion of the seven indicators.

Table 3: Mean rating values, EFA and CFA results for the Instrument to assess Members' Perceptions about CSNs

	Mean (max=7)	EFA		CFA		
		EFA loadings	Cronbach Reliability	CFA loadings	AVE	Composite Reliability
COMMUNICATION QUALITY			.90		.62	.91
Opportunity for fans to interact with people with similar interests	5.48	.79		.80		
Chance of commenting the own experiences with the company services/products	5.82	.75		.77		
Possibility of knowing other fans opinions about the company services/products	5.63	.63		.79		
Creation of content by fans that is useful to other fans	5.57	.67		.81		
Possibility of clearing doubts directly with the company	5.66	.56		.82		
Total openness of participation for all the fans	6.03	.54		.74		
REPUTATION			.91		.70	.92
High reputation of the company brand	6.39	.82		.84		
Credibility of the company brand	6.38	.85		.86		
Distinctiveness of the company brand	6.09	.76		.85		
Quality of products and services of the company brand	6.31	.73		.87		
Ability of the company to be in the forefront of innovation	6.05	.69		.74		
INFORMATION QUALITY			.86		.58	.87
Up-to-datedness of the information provided by the company	5.99	.74		.79		
Sufficiency without excessiveness of the information provided by the company	5.92	.80		.78		
Adequate proportion of company advertising	5.70	.61		.68		
Credibility of the information provided by the company	6.26	.63		.74		
Adequateness of the frequency of the company posts	5.69	.66		.81		
SELF-EXPRESSIVENESS			.90		.71	.91
Ability to transmit something positive about a person lifestyle	5.01	.85		.92		
Ability to increase the others knowledge about a person	4.42	.82		.81		
Ability to transmit something positive about a person	5.24	.77		.85		
Ability to express personal tastes	5.36	.74		.80		
ACTIVITY QUALITY			.92		.78	.93
Chance of gaining good prizes as rewards for participation	5.81	.79		.81		
Prizes as a good incentive to stimulate fans active participation	5.92	.77		.86		
Enjoyment derived from the participation in the activities promoted by the company	5.68	.81		.92		
Interest of the activities promoted by the company	5.80	.79		.92		
THEMATIC CONSISTENCY			.86		.63	.87
CSN as a good service of support to the company customers	5.71	.81		.78		
Relatedness of the CSN to the company services and products	5.90	.74		.68		
CSN as a mean for helping in a better use of the company services and products	5.69	.65		.87		
CSN as support of daily tasks that are related to the company	5.41	.64		.84		

$\chi^2 = 3930,18; 1092 df; p=.00$
 Comparative Fit Index (CFI) = .91
 Tucker-Lewis Index (TLI) = .90
 Standardized Root Mean Square Residual (SRMR) = .07
 Root Mean Squared Error of Approximation. (RMSEA) = .06

Total variance explained = 70,69 %

By the end of this process, we obtained composite reliabilities above the minimum standard of 0.7 for all dimensions, which support the existence of internal consistency of each dimension. These values, together with CFA loadings of the scale items on their corresponding factors (all above the minimum recommended of 0.7), support the convergent validity of each scale's component dimensions. Correlations between the constructs of the measurement model were all below of 0.8 (Bagozzi and Yi, 1988), which suggests discriminant validity. Additionally, the variance shared among each two factors was generally lower than their average variance extracted (AVEs), satisfying Fornell and Larcker's (1981) discriminant validity criterion, as depicted in table 4. There was only one exception, between thematic consistency and communication quality. Values of AVE for both constructs (.62 and .63) and correlation (.69) are, however, close.

Table 4: Squared Correlations between the Six Instrument Dimensions and t values;
Average Variance Extracted on diagonal

	COMMUNICATION QUALITY	REPUTATION	INFORMATION QUALITY	SELF- EXPRESSIVENESS	ACTIVITY QUALITY	THEMATIC CONSISTENCY
COMMUNICATION QUALITY	(.62)					
REPUTATION	.48 8.48	(.70)				
INFORMATION QUALITY	.43 7.48	.40 7.52	(0.58)			
SELF- EXPRESSIVENESS	.47 8.29	.25 7.01	.29 6.78	(.71)		
ACTIVITY QUALITY	.50 8.66	.32 7.80	.40 7.60	.47 7.79	(0.78)	
THEMATIC CONSISTENCY	.69 8.32	.40 7.56	.47 7.79	.30 7.05	.34 6.68	(0.63)

After the scale refinement process through EFA and CFA, the following six dimensions of CSN attribute perception factors were retained for the final scale.

- 1) *Communication quality*, defined as the member's possibility of expressing any idea and of knowing other members' opinions and of getting responses from the company to his/her questions and demands.

- 2) *Reputation*, defined as the ability of a product, service or brand to which a CSN is anchored, to convey a positive image.
- 3) *Information quality*, defined as credibility, appropriateness, up-to-datedness and feeding adequacy of content provided by the company through its CSN page.
- 4) *Self-expressiveness*, defined as the ability of the product, service, brand or subject to which a CSN is anchored, to communicate something about a member of that CSN.
- 5) *Activity quality*, defined as the capability of the activities promoted by the company to reward participants both externally (through attractive prizes) and internally (through interesting and enjoyable activities).
- 6) *Thematic consistency*, defined as the congruence between the CSN purpose and the company/brand offering.

To assess nomological validity, we also tested the relationships between the six dimensions of the developed instrument and other four constructs that are theoretically expected to be predicted by those dimensions (see table 5).

Table 5: Impact of the Six Dimensions of the Instrument on Satisfaction, Cognitive Identification, Affective Identification and Loyalty Intentions towards the CSN

	SATISFACTION WITH CSN		COGNITIVE IDENTIFICATION		AFFECTIVE IDENTIFICATION		LOYALTY INTENTIONS TOWARDS CSN	
	CFA load.	t	CFA load.	t	CFA load.	T	CFA load.	T
COMMUNICATION QUALITY	.33**	4.44	.07	.97	.00	.04	.27**	3.45
REPUTATION	.23**	5.14	-.21*	-4.47	-.06	-1.38	.13*	2.64
INFORMATION QUALITY	.21**	2.89	-.01	-0.12	-.12*	-2.55	.13*	2.29
SELF-EXPRESSIVENESS	.06*	2.20	.56**	11.51	.50**	11.58	.15*	3.12
ACTIVITY QUALITY	.05	.11	.02*	0.47	.15**	3.43	.07	1.33
THEMATIC CONSISTENCY	.03	.46	.28**	4.13	.40**	6.44	.28**	3.87
R²	0.61		.54		.67		.80	
Df	413		443		413		413	
χ^2 / p	1445.77 / p=.00		1585.27 / p=.00		1420.07 / p=.00		1553.46 / p=.00	
CFI	.93		.93		.94		.92	
TLI (NNFI)	.92		.92		.93		.91	
SRMR	.05		.06		.05		.05	
RMSEA	.06		.05		.06		.07	

Satisfaction with CSN (adapted from Li et al., 2006); *Cognitive Identification with CSN community* (adapted from Nambisan and Baron, 2007); *Affective Identification with CSN community* (adapted from Allen and Meyer, 1990); *Loyalty towards CSN* (adapted from Kang et al., 2007)

CFA load. = standardized CFA (Confirmatory Factor Analysis) loading; *significant at $p < .05$; **significant at $p < .01$

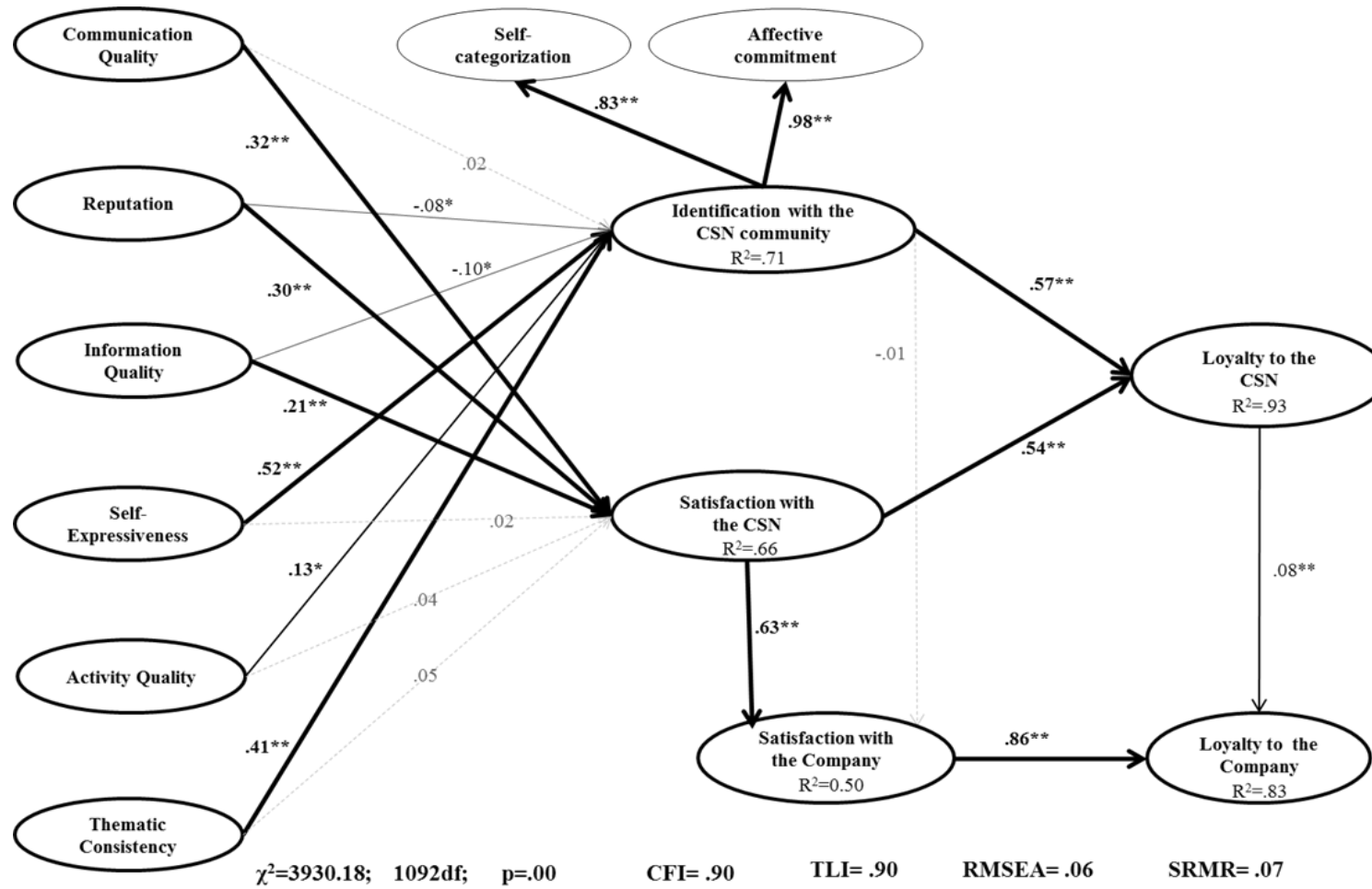
According to our conceptual model, the following constructs were selected: *satisfaction with CSN*, *cognitive identification* and *affective identification with CSN community*, and *loyalty intentions towards CSN*. To determine the extent to which each instrument dimension relates with each of those constructs, six separate SEM models have been run. In each model the six kinds of perceptions about CSNs were the exogenous variables and each of those constructs, one at a time, worked as endogenous variable. Table 5 summarizes the results of this procedure. The results show that all dimensions had significant impacts on at least one of the considered endogenous variables and model fits were acceptable, thus indicating the existence of nomological validity.

4. Conceptual model testing and analysis of structural relationships

To estimate the proposed path model through structural equation modeling, we used the IBM SPSS Amos software and employed a robust maximum likelihood estimation method. The results of this procedure are presented in figure 3. Additionally, we used the bootstrap method with bias-corrected confidence intervals (Erceg-Hurn and Mirosevich, 2008) to test the significance of all the direct and indirect effects of each variable in the model (see table 6).

Figure 3 presents the findings for the hypothesized path model, showing that it satisfactorily fits data ($\chi^2=3930.18$, 1092 df, $p=0.00$; CFI=0.90; TLI=0.90 RMSEA=0.06; SRMR=0.07). It shows that all the identified dimensions have a significant impact in at least one of the measured attitudes towards the CSN. At the same time, as hypothesized in the model, both attitudes (*satisfaction with CSN* and *identification with the CSN community*) have a significant impact on *loyalty towards the CSN* ($\beta=0.57$; $p<0.01$; and $\beta=0.54$; $p<0.01$, respectively), explaining 93% of its variance.

The model has good explanatory power for *identification with the CSN community* with 71% of its variance being explained. However only three dimensions behave as hypothesized in the conceptual model.



Satisfaction with the company adapted from Oliver, 1997; *Loyalty to the company* adapted from Zeithaml et al., 1996.

Figure 3: Final Solution of the Structural Model

Impact on identification with the CSN

Self-expressiveness ($\gamma=0.52$; $p<0.01$) and *thematic consistency* ($\gamma=0.41$; $p<0.01$) are the most important predictors of *identification with the CSN community*, followed by *activity quality* ($\gamma=0.13$; $p<0.05$), which has a significant lower impact. However, there were some unexpected results as: *information quality* ($\gamma=-0.10$; $p<0.05$) and *reputation* ($\gamma=-0.08$; $p<0.05$) have a slight negative influence on *social identification with the CSN community* and the influence of *communication quality* ($\gamma=0.02$; $p>0.05$) is not statistically significant.

The influence of self-expressiveness on identification has been found in related literature. People tend to identify with groups whose members they deem similar with themselves (Abrams and Hogg, 1990, Turner, 1975). Self-expressiveness is the connection to one CSN's perceived potential to transmit something about the connected member. It is thus expected that when members think that their connections express something about themselves, they also feel similar to other people who have exactly the same connections.

This study also corroborated the previous qualitative study regarding the impact of thematic consistency on identification with the community. According to the identification-related literature, identification with a group or an organization is more likely to happen when the individual believes he/she knows the identity of that group well. Thus, people's understanding of a group or an organization identity is likely to be greater when its behavior is consistent. Receiving incoherent or even contradictory information about a social entity prevent individuals of doing judgments that lead to identification, such as those of similarity (Bhattacharya and Sen, 2003). The influence of activity quality on identification with the community is also in line with the conceptual model initially proposed. Higher participation in the activities carried out within the CSN means a higher level of involvement with the community (Casaló et al., 2008).

The most surprising is perhaps the almost insignificant, and even negative, impact of *reputation* on identification. Given that identification is a process of self-esteem enhancement, the more prestigious people perceive a social identity to be, the more attractive that identity is to them (Bhattacharya et al., 1995,

Ashforth and Mael, 1989, Kuenzel and Halliday, 2010). A possible explanation for this somehow unexpected result is the fact that, while the variable reputation refers to the CSN host-company brand, the variable identification, in this study, regards to the community itself, i.e. the group of people that compose the CSN. As noted before, CSNs in most cases are not brand communities, so members are not necessarily connected by a common admiration to the brand (Martins and Patrício, 2013). Thus, if the CSN (like the one under study) was not directly developed around the company brand, but around a related subject (in this case, 'cooking'), identification with the community is likely to occur based on the common enthusiasm for that subject and not based on the company's reputation.

Also communication quality was expected to have a significant impact on identification. According to the literature, the more contact a person has with a social entity, the more likely that person is to define himself as a member (Dutton et al., 1994). The lack of influence that we found in the model should be related with the fact that this variable relates, to a large extent, to the communication with the company, not with the other members of the community. The same justification applies to explain the almost insignificant influence of information quality on identification with the community.

Impact on satisfaction with CSN

Results show that 66% of variance of *satisfaction with the CSN* is explained by the model. In contrast with the impact on identification with the CSN, three other dimensions significantly influence *satisfaction with the CSN*: *communication quality* ($\gamma=0.32$; $p<0.01$), *reputation* ($\gamma=0.30$; $p<0.01$) and *information quality* ($\gamma=0.21$; $p<0.01$). *Self-expressiveness* ($\gamma=0.02$; $p>0.05$), *activity quality* ($\gamma=0.04$; $p>0.05$) and *thematic consistency* ($\gamma=0.05$; $p>0.05$) did not show any statistically significant impact on satisfaction with the CSN. The impact of reputation was not surprising. Previous literature is consistent in associating corporate and brand reputation to customer satisfaction (e.g. Helm et al., 2010, Andreassen and Lindestad, 1998, Walsh et al., 2006). The fact that communication and information quality are significant predictors of satisfaction not only corroborates existing research in other types of OCs (e.g. Lin, 2008)

but also suggests that *satisfaction with the CSN* is mainly a consequence of perceiving CSN membership and participation as a source of functional value related to the service provided by the host company. In contrast, identification with the community appears to derive mostly from the perception of social and entertainment benefits. Cheung and Lee (2009) got similar results in an OC for teachers. While the functional value was the main driver of satisfaction, social and entertainment values did not exert any influence on it. In turn, social and entertainment value had strong and significant impact on commitment (affective component of identification) to the community.

Impact on satisfaction with the CSN host company

The study results show that while satisfaction with the CSN strongly impacts *satisfaction with the company* ($\beta=0.63$; $p<0.01$), *identification with the CSN community* has only a moderate impact ($\beta=0.13$; $p<0.01$). Moreover, *loyalty towards the CSN* (which is in great part explained by identification with CSN community) exerts a limited influence on *loyalty towards the company* ($\beta=0.08$; $p<0.01$). At first sight, this may seem inconsistent with extant research that generally presents a positive influence of consumer identification with brand communities on attitudes and loyalty behaviors towards those brands (Füller et al., 2008, Zhou et al., 2012, Marzocchi et al., 2013). Identification with the group in a brand community is usually underpinned by a common enthusiasm for that brand (Marzocchi et al., 2013, Dholakia and Algesheimer, 2009, Zhou et al., 2012). However, in CSNs reasons to participate are much more diverse and do not necessarily entail passion for the host-company or respective brand. According to Martins and Patrício, sometimes members have a neutral or even a negative view of the company (Martins and Patrício, 2013), which may in part explain why identification is not translated into satisfaction and loyalty towards the host-company. These results may also be explained to some extent by the fact that in some CSNs, the host company brand is not the subject focus of the CSN. This was the case of the CSN under study, which was hosted by a retailer, but managed round cooking.

Table 6: Direct, Indirect and Total Effects of the Six Instrument Dimensions on Loyalty towards the CSN, and Satisfaction and Loyalty towards the Company

Effects of: → on:↓	COMMUNIC. QUALITY		REPUTATION		ACTIVITY QUALITY		SELF- EXPRESSIVEN.		INFORM. QUALITY		THEMATIC CONSISTENCY	
	CFA load.	P	CFA load.	P	CFA load.	P	CFA load.	P	CFA load.	P	CFA load.	P
LOYALTY TO CSN												
total effect	.25*	.02	.11	.12	.09	.12	.18**	.00	.10	.12	.32**	.00
direct effect	.12	.09	.08	.10	-.01	.86	-.16**	.01	.09	.08	.07	.09
indirect effect	.13*	.03	.03	.59	.10*	.02	.34**	.00	.02	.66	.25**	.00
SATISFACTION WITH COMPANY												
total effect	.03	.78	.62**	.00	-.03	.66	-.02	.66	.02	.67	.24	.24
direct effect	-.06	.42	.56**	.00	-.05	.29	-.06	.30	-.03	.50	.21**	.00
indirect effect	.09**	.00	.06**	.01	.02	.32	.04	.35	.05**	.01	.02	.52
LOYALTY TO COMPANY												
total effect	-.03	.76	.61**	.00	-.04	.53	.03	.57	-.04	.63	.26**	.00
direct effect	-.11	.06	.07	.10	-.04	.33	.00	.57	-.08*	.04	-.01	.89
indirect effect	.08	.36	.54**	.00	-.01	.93	.02	.66	.04	.47	.27**	.00

CFA load. = standardized CFA loading; *significant at $p < .05$; **significant at $p < .01$

The analysis of direct and mediating effects enabled better understanding the relationships between the model variables (see table 6). These results show a significant direct path from *self-expressiveness* to *loyalty towards the CSN*, meaning that *identification with the CSN community* only partially mediates the link from *self-expressiveness* to *loyalty towards the CSN*. This indicates that some CSN members may not feel identified with the CSN community, but if they think their connection to that CSN has the power of presenting their identity to others, they will likely be loyal to that CSN. The link between all the remaining CSN attribute perceptions and *loyalty to the CSN* is fully mediated by either *satisfaction* or *identification*, given that the direct paths from each of those perceptions of CSN to *loyalty towards the CSN* are non-significant.

The results also show that *thematic consistency* only affects satisfaction with the host company directly, and not (indirectly) through the mediation of identification with the community, which suggests that consumers tend to have a positive attitude about companies that develop extra-services (either CSNs or others) closely related to their core services or products, whose purpose is

supporting consumption. Moreover, *reputation* has a strong and significant direct effect on both satisfaction and *loyalty* towards the CSN, which was quite predictable, according to extant literature (e.g. Helm et al., 2010, Andreassen and Lindestad, 1998).

Overall, the quantitative study enabled a much better understanding of the mechanisms of participation and value creation in CSNs. It corroborated some of the previous findings from literature on related phenomena, but also provided new results that show that CSNs are a different phenomenon when compared to them. Moreover, they also provide important implications for companies trying to manage their presence in the social web.

5. Research and Managerial Implications

This study contributes to understand the novel phenomenon of CSNs, by operationalizing and validating a conceptual model whose general aim was to understand the antecedents and consequences of participation in CSNs. Previous research has already addressed these same issues, but within different kinds of consumer communities. The conceptual model was developed based on the findings of a qualitative study and literature review. Following scale development procedures, a measurement instrument was created, refined and validated in order to test the conceptual model, later analyzed through structural equation modeling. The first important contribution of this research is the production of this scale which assesses members' perceptions about a CSN, along with their attitudinal and behavioral responses towards the CSN and the host-company. Besides researchers, also companies may use this scale in order to evaluate and improve their CSNs.

The study corroborates the findings of the previous qualitative study, but it also evolved our understanding of participation factors by identifying and measuring six dimensions that drive loyalty towards the CSN: communication quality, information quality, reputation, self-expressiveness, thematic consistency and activity quality. The study also sheds light into the different nature of CSNs, by showing that CSNs are different from previously studied online consumer communities.

One of the most important contributions of this study is to find that the influence of the identified dimensions on loyalty towards the CSN is exerted in two different ways, i.e. through the mediation of different attitude variables. On one hand, communication quality, information quality and reputation influence loyalty to the CSN through the mediation of satisfaction with the CSN. This suggests that satisfaction with the CSN derives mostly from the fulfillment of pragmatic informational needs. When seen in the light service e-quality and e-satisfaction literature (e.g. Parasuraman et al., 2005; Wolfinbarger and Gilly, 2003), these results indicate that members partially consider CSNs as a service that complements the core company offering, being a channel through which it offers information and two way communication.

On the other hand, self-expressiveness, thematic consistency and activity quality influence loyalty to the CSN through the mediation of identification with the CSN community. Identification appears mainly related with the gratification of social (and, in part, entertainment) needs, namely the need for self-presentation, which is pointed out in the literature as one of the main motivations to participate in social networking sites (Nadkarni and Hofmann, 2012). Therefore, these results suggest that, in part, members also consider the CSN a community in the traditional sense, where they expect to express themselves and get together with other members that share their content or activity interests. They become members to make part of a group with which they feel identified and to transmit something about themselves to others.

Overall, these results bring a novel understanding of the mechanisms of participation in CSNs, suggesting that they have two different aspects: the functional (dominant) and the social. Members see the CSN as a mix of both a service provided by the host company and a traditional community. Although there is extensive literature on OCs, both social oriented and service oriented, this study provides novel insights into how these two facets may converge to create value for companies and their customers through CSNs.

The described findings may be useful for CSN managers as a support in the task of devising their strategies, suggesting two different paths for companies to generate loyalty towards their CSNs. The first path consists of the creation of

informative, not excessive, content, mainly related with their services and products, and the promotion of interactive communication, assuming the CSN as an important consumer support channel. The second path implies the development of member's identification with the community, which entails developing a strong and consistent image of the CSN (keeping content and activity focused on the central topic), capable of communicating something specific about its members. This task may be particularly difficult when the CSN is developed around a low-involvement service or product whose self-expressiveness value is low.

However, besides this, present study also revealed another important finding: whereas the impact of satisfaction with the CSN on satisfaction with the company is quite important, identification with the CSN community has a feeble impact on satisfaction with company. Moreover, loyalty towards CSN (which is very well explained by both satisfaction with the CSN and identification with the CSN community) is a poor predictor of loyalty towards the company. This suggests that factors such as self-expressiveness and activity quality are important to attract new members and keep the community active and alive, but have a questionable impact on value created for the company through satisfaction and loyalty. On the other hand, service support related factors have a significant impact on satisfaction and loyalty with the host company, but fail to engage members through identification.

In this context, given that what is ultimately desired is satisfaction and loyalty to company, some companies could wrongly interpret these findings as suggesting that promoting satisfaction could be more useful for companies than promoting identification with the community, leading them to mainly foster the informative value of their CSNs. Nevertheless, we believe that these results indicate that companies should strive to reach a balance between the traditional community component and the service support component in their CSNs. Although identification has not a direct impact on loyalty towards the company, its benefits in the long term should be significant. As we could see, the impact of identification with the community in loyalty toward the community is even higher than the impact of satisfaction. In any case, CSN participation (even

though passive) means contact with the company and brand(s). This direct contact should always be taken by companies as opportunities to co-create value with consumers.

It is important to note that this study focused on one CSN, from a specific business (food retail) and with a particular CSN strategy. The retailer has chosen to create a CSN that does not directly address the company brand but a related subject, somehow related with the company activity (cooking), revealing a clear concern with a balance between the traditional community component and the service component. Nevertheless, CSNs may decide to have different combinations of traditional and service components, namely by giving a clear predominance to one of them. However, study results show that by balancing these two components they will have better chances to create and maintain lively communities while capturing some of the value created in terms of increased satisfaction and loyalty.

6. Conclusion and Future Research

This study builds and tests a conceptual model about the antecedents and consequences of participation in CSNs. To undertake it, a multi-item scale, which can in the future be used both by researcher and firms, was developed and validated. The results of the study enabled a better understanding of participation in CSNs. Firstly we confirmed that all the dimensions of the model were important to explain loyalty intentions towards the CSN. Secondly, we found that the relationship between each of those dimensions and loyalty to the CSN is mediated by different variables, indicating that CSNs have two distinct components: a functional and a social component. On one hand, members are loyal to CSNs because of information and support from the company. The fulfillment of informational needs leads to satisfaction with the CSN, which in turn, drives loyalty. On the other hand, the fulfillment of social and entertainment needs is precursor of identification with the community, which is also a driver of loyalty to the CSN. Based on these results, some implications for practitioners were drawn. The results suggest that all the dimensions should be taken into account. However, whereas

information-related dimensions are drivers of satisfaction with the CSN, social and entertainment oriented dimensions have the potential to commit the members to the community, through identification.

Nevertheless, the conceptual model test also revealed that satisfaction with the CSN is a good predictor of general satisfaction with the host company, but the same does not apply to the relationship between identification with the CSN community and satisfaction with the host company. These results raise some questions that deserve being addressed: Given that what is ultimately desired is satisfaction and loyalty towards company, is it worth to promote identification with the community when the most important factor to generate satisfaction and loyalty to the company is satisfaction with the CSN? Should companies privilege satisfaction generation, by predominantly improving the CSN informational value and disregard social aspects that promote identification with the community? Answering these questions is relevant for managers and researchers may have an important role in doing so.

Feeling identified with a community means having a sense of belonging. The results confirm that identification leads to loyalty to the CSN, which suggests that it should not be disregarded by companies. However, it is still essential to get a deeper understanding about how CSN loyal members who identify with the community (and are attracted mainly by the CSN social and hedonistic value) can bring value for the company. Future studies, following mixed-methods approaches, should address how value may be created through community identification in CSNs

Besides, retailing is a very specific field, where services and products are characterized by a low involvement potential. Moreover, the fact that the studied CSN was developed not directly around the brand but around a related subject, make it also a very particular case. Therefore, future research can replicate this study in other services, establishing comparisons among them, namely regarding the importance of different factors for distinct areas (such as health, culture or education). Continuing CSN research in different organizations, characterized by different purposes, is extremely important because empirical generalizations derived from data gathered in one specific

organization type are not necessarily applicable to all. We hope to be able to in the future contribute to this endeavor and at the same time we expect to be laying down the roots for other researchers work in this field.

References

- Aaker, J. L. (1999), "The Malleable Self: The Role of Self-Expression in Persuasion", *Journal of Marketing Research*, Vol. 36, No 1, pp. 45-57.
- Abrams, D. and Hogg, M. A. (1990), "Social identification, self-categorization and social influence", *European Review of Social Psychology*, Vol. 1, No 1, pp. 195-228.
- Adjei, M., Noble, S. and Noble, C. (2010), "The influence of C2C communications in online brand communities on customer purchase behavior", *Journal of the Academy of Marketing Science*, Vol. 38, No 5, pp. 634-653.
- Algesheimer, R., Dholakia, U. M. and Herrmann, A. (2005), "The Social Influence of Brand Community: Evidence from European Car Clubs", *Journal of Marketing*, Vol. 69, No 3, pp. 19-34.
- Allen, N. J. and Meyer, J. P. (1990), "The measurement and antecedents of affective, continuance and normative commitment to the organization", *Journal of Occupational Psychology*, Vol. 63, No 1, pp. 1-18.
- Anderson, E. W. and Sullivan, M. W. (1993), "The antecedents and consequences of customer satisfaction for firms", *Marketing Science*, Vol. 12, No 2, pp. 125-143.
- Andreassen, T. W. and Lindestad, B. (1998), "Customer loyalty and complex services: the impact of corporate image on quality, customer satisfaction and loyalty for customers with varying degrees of service expertise", *International Journal of Service Industry Management*, Vol. 9, No 1, pp. 7-23.
- Antikainen, M., Mäkipää, M. and Ahonen, M. (2010), "Motivating and supporting collaboration in open innovation", *European Journal of Innovation Management*, Vol. 13, No 1, pp. 100-119.
- Arguello, J., Butler, B., Joyce, E., Kraut, R., Ling, K. S. and Wang, X. (2006), "Talk to Me: Foundations for Successful Individual-Group Interactions in Online Communities", in *Proceedings of the ACM Conference on Human-Computer Interaction*, Montréal, Québec, Canada.
- Ashforth, B. E. and Mael, F. (1989), "Social identity theory and the organization", *Academy of management review*, Vol., No pp. 20-39.
- Bagozzi, R. and Dholakia, U. (2006), "Antecedents and purchase consequences of customer participation in small group brand communities", *International Journal of Research in Marketing* Vol. 23, No 1, pp. 45-61
- Bagozzi, R. and Yi, Y. (1988), "On the evaluation of structural equation models", *Journal of the Academy of Marketing Science*, Vol. 16, No 1, pp. 74-94.
- Bagozzi, R. P. and Dholakia, U. M. (2002), "Intentional Social Action in Virtual Communities", *Journal of Interactive Marketing*, Vol. 16, No 2, pp. 2-21.
- Bateman, P. J., Gray, P. H. and Butler, B. S. (2011), "The Impact of Community Commitment on Participation in Online Communities", *Information Systems Research*, Vol. 22, No 4, pp. 841-854.

- Bergami, M. and Bagozzi, R. P. (2000), "Self-categorization, affective commitment and group self-esteem as distinct aspects of social identity in the organization", *British Journal of Social Psychology*, Vol. 39, No 4, pp. 555-577.
- Bhattacharya, C. B., Rao, H. and Glynn, M. A. (1995), "Understanding the bond of identification: An investigation of its correlates among art museum members", *Journal of Marketing*, Vol. 59, No 4, pp. 46-57.
- Bhattacharya, C. B. and Sen, S. (2003), "Consumer-company identification: a framework for understanding consumers' relationships with companies", *Journal of Marketing*, Vol. 67, No 2, pp. 76-88.
- Blanchard, A. and Markus, L. (2004), "The Experienced "Sense" of a Virtual Community: Characteristics and Processes", *The data base for Advances in Information Systems*, Vol. 35, No 1, pp. 65-79.
- boyd, D. M. and Ellison, N. B. (2007), "Social network sites: Definition, history, and scholarship", *Journal of Computer-Mediated Communication*, Vol. 13, No 1, article 11.
- Brown, J., Broderick, A. J. and Lee, N. (2007), "Word of Mouth Communication within online communities: conceptualizing the online social network", *Journal of Interactive Marketing*, Vol. 21, No 3, pp. 2-20.
- Brown, T. A. (2006), *Confirmatory Factor Analysis for Applied Research*, Guilford Press.
- Bryman, A. (2012), *Social Research Methods*, Oxford University Press, New York, NY.
- Burke, M., Kraut, R. and Joyce, E. (2010), "Membership claims and requests: Conversation-level newcomer socialization strategies in online groups", *Small Group Research*, Vol. 41, No 1, pp. 4-40.
- Butler, B. S. (2001), "Membership Size, Communication Activity, and Sustainability: A Resource-Based Model of Online Social Structures", *Information Systems Research*, Vol. 12, No 4, pp. 346-362.
- Casaló, L., Flavián, C. and Guinalú, M. (2007), "The impact of participation in virtual brand communities on consumer trust and loyalty: The case of free software", *Online Information Review*, Vol. 31, No 6, pp. 775-792.
- Casaló, L., Flavián, C. and Guinalú, M. (2008), "Promoting Consumer's Participation in Virtual Brand Communities: A New Paradigm in Branding Strategy", *Journal of Marketing Communications*, Vol. 14, No 1, pp. 19-36.
- Casaló, L., Flavián, C. and Guinalú, M. (2010), "Relationship quality, community promotion and brand loyalty in virtual communities: Evidence from free software communities", *International Journal of Information Management*, Vol. 30, No 4, pp. 357-367.
- Charmaz, K. (2006), *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis (Introducing Qualitative Methods series)*, Sage Publications, Thousand Oaks, CA.

- Chavis, D. M., Hogge, J. H., Mcmillan, D. W. and Wandersman, A. (1986), "Sense of community through Brunswik's lens: A first look", *Journal of Community Psychology*, Vol. 14, No 1, pp. 24-40.
- Cheung, C. and Lee, M. (2007), "What Drives Members to Continue Sharing Knowledge in a Virtual Professional Community? The Role of Knowledge Self-efficacy and Satisfaction", In: *Knowledge Science, Engineering and Management*, Springer Berlin Heidelberg, No pp. 472-484.
- Cheung, C. and Lee, M. (2009), "Understanding the sustainability of a virtual community: model development and empirical test", *Journal of Information Science*, Vol. 35, No 3, pp. 279-298.
- Chiu, C.-M., Wang, E., Shih, F.-J. and Fan, Y.-W. (2011), "Understanding knowledge sharing in virtual communities: An integration of expectancy disconfirmation and justice theories", *Online Information Review*, Vol. 35, No 1, pp. 134 -153.
- Churchill Jr, G. A. (1979), "A Paradigm for Developing Better Measures of Marketing Constructs", *Journal of Marketing Research*, Vol. 16, No 1, pp. 64-73.
- Cova, B. and Pace, S. (2006), "Brand community of convenience products: new forms of customer empowerment – the case “my Nutella The Community”", *European Journal of Marketing*, Vol. 40, No 9/10, pp. 1087-1105.
- Creswell, J. W. (2009), *Research Design: Quantitative, Qualitative and Mixed-methods Approaches*, Sage Publications, London, UK.
- Cronin Jr, J. J. and Taylor, S. A. (1992), "Measuring Service Quality: A Reexamination and Extension", *Journal of Marketing*, Vol. 56, No 3, pp. 55-68.
- De Cremer, D. and Van Dijk, E. (2002), "Reactions to group success and failure as a function of identification level: a test of the goal-transformation hypothesis in social dilemmas", *Journal of Experimental Social Psychology*, Vol. 38, No 5, pp. 435-442.
- Deci, E. L. and Ryan, R. M. (1985), *Intrinsic motivation and self-determination in human behavior*, Plenum, New York, NY.
- DeVellis, R. F. (2012), *Scale development: theory and applications*, Sage, Thousand Oaks, CA.
- Dholakia, U. M. and Algesheimer, R. (2009), "Brand community", *Wiley International Encyclopedia of Marketing*.
- Dholakia, U. M., Bagozzi, R. P. and Pearo, L. K. (2004), "A social influence model of consumer participation in network- and small-group-based virtual communities", *International Journal of Research in Marketing*, Vol. 21, No 3, pp. 241-263.
- Dutton, J. E., Dukerich, J. M. and Harquail, C. V. (1994), "Organizational images and member identification", *Administrative Science Quarterly*, Vol., No pp. 239-263.
- Ellemers, N., Kortekaas, P. and Ouwerkerk, J. W. (1999), "Self-categorisation, commitment to the group and group self-esteem as related but distinct aspects of social identity", *European Journal of Social Psychology*, Vol. 29, No 2-3, pp. 371-389.

- Elliot, S., Li, G. and Choi, C. (2013), "Understanding service quality in a virtual travel community environment", *Journal of Business Research*, Vol. 66, No 8, pp. 1153–1160.
- Erceg-Hurn, D. and Mirosevich, V. (2008), "Modern robust statistical methods", *American Psychologist*, Vol. 63, No 7, pp. 591-601.
- Fahey, R., Vasconcelos, A. C. and Ellis, D. (2007), "The impact of rewards within communities of practice: a study of the SAP online global community", *Knowledge Management Research & Practice*, Vol. 5, No 3, pp. 186-198.
- Faraj, S. and Wasko, M. M. (2001), "The Web of Knowledge: An Investigation of Knowledge Exchange in Networks of Practice", in Proceedings of the Annual Meeting of the Academy of Management, August 12-16, San Antonio, TX.
- Farquhar, J. and Rowley, J. (2006), "Relationships and online consumer communities", *Business Process Management Journal*, Vol. 12, No 2, pp. 162-177.
- Fishbein, M. and Ajzen, I. (1975), *Belief, attitude, intention and behavior: An introduction to theory and research*, Addison-Wesley, Boston, MA.
- Fisk, R., Grove, S. J. and John, J. (2008), *Interactive Services Marketing*, Houghton Mifflin Company, Boston, MA.
- Fornell, C. and Larcker, D. F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18, No 1, pp. 39-50.
- Füller, J., Matzler, K. and Hoppe, M. (2008), "Brand Community Members as a Source of Innovation", *Journal of Product Innovation Management*, Vol. 25, No 6, pp. 608-619.
- Gerbing, D. W. and Anderson, J. C. (1988), "An updated paradigm for scale development incorporating unidimensionality and its assessment.", *Journal of Marketing Research*, Vol. 25, No May, pp. 186-192.
- Glaser, B. and Strauss, A. (1967), *The Discovery of Grounded Theory: Strategies for Qualitative Research*, Aldine Transaction, New Brunswick, NJ.
- Goffman, E. (1959), *The Presentation of Self in Everyday Life*, Doubleday, New York, NY.
- Gustafsson, A., Johnson, M. D. and Roos, I. (2005), "The Effects of Customer Satisfaction, Relationship Commitment Dimensions, and Triggers on Customer Retention", *Journal of Marketing*, Vol. 69, No 4, pp. 210-218.
- Gutman, J. (1982), "A means-end chain model based on consumer categorization processes", *The Journal of Marketing*, Vol. 46, No 2, pp. 60-72.
- Hagel, J. and Armstrong, A. (1997), *Net Gain: Expanding Markets Through Virtual Communities*, Harvard Business School Press, Boston, MA.
- Hair, J., Black, B., Babin, B. and Anderson, R. (2010), *Multivariate Data Analysis: a global perspective (7th Edition)*, Pearson Prentice Hall, New Jersey.

- Helm, S., Eggert, A. and Garnefeld, I. (2010), "Modeling the impact of corporate reputation on customer satisfaction and loyalty using partial least squares", *Handbook of Partial Least Squares*, Springer, pp. 515-534.
- Hennig-Thurau, T. and Walsh, G. (2003), "Electronic Word of Mouth: Motives for and Consequences of Reading Customer Articulations on the Internet", *International Journal of Electronic Commerce*, Vol. 8, No 2, pp. 51-74.
- Ho, C.-I. and Lee, Y.-L. (2007), "The development of an e-travel service quality scale", *Tourism Management*, Vol. 28, No 6, pp. 1434-1449.
- Hollenbeck, C. R. and Kaikati, A. M. (2012), "Consumers' use of brands to reflect their actual and ideal selves on Facebook", *International Journal of Research in Marketing*, Vol. 29, No 4, pp. 395-405.
- Hsu, C. P., Chiang, Y. F. and Huang, H. C. (2012), "How experience-driven community identification generates trust and engagement", *Online Information Review*, Vol. 36, No 1, pp. 72-88.
- Jang, H., Olfman, L., Ko, I., Koh, J. and Kim, K. (2008), "The Influence of On-Line Brand Community Characteristics on Community Commitment and Brand Loyalty", *International Journal of Electronic Commerce*, Vol. 12, No 3, pp. 57-80.
- Jin, B., Park, J. Y. and Kim, H.-S. (2010), "What makes online community members commit? A social exchange perspective", *Behaviour & Information Technology*, Vol. 29, No 6, pp. 587 - 599.
- Johnson, M. D., Morgeson, F. P. and Hekman, D. R. (2012), "Cognitive and affective identification: Exploring the links between different forms of social identification and personality with work attitudes and behavior", *Journal of Organizational Behavior*, Vol. 33, No 8, pp. 1142-1167.
- Jones, Q., Ravid, G. and Rafaeli, S. (2004), "Information Overload and the Message Dynamics of Online Interaction Spaces: A Theoretical Model and Empirical Exploration", *Information Systems Research*, Vol. 15, No 2, pp. 194-210.
- Joyce, E., & Kraut, R. (2006), "Predicting Continued Participation in Newsgroups", *Journal of Computer-Mediated Communication*, Vol. 11, No 3, pp. 723-747.
- Kang, I., Lee, K. C., Lee, S. and Choi, J. (2007), "Investigation of online community voluntary behavior using cognitive map", *Computers in Human Behavior*, Vol. 23, No 1, pp. 111-126.
- Kim, J. W., Choi, J., Qualls, W. and Han, K. (2008), "It takes a marketplace community to raise brand commitment: the role of online communities", *Journal of Marketing Management*, Vol. 24, No 3-4, pp. 409-431.
- Koh, J., Kim, Y.-G., Brian Butler and Bock, G.-W. (2007), "Encouraging Participation in Virtual Communities", *Communications of the ACM*, Vol. 50, No 2, pp. 69-73.
- Kohn, A. (1993), *Punished by Rewards*, Plenum Press, New York, NY.

Kollock, P. (1999), "The Economies of Online Cooperation: Gifts and Public Goods in Cyberspace", *In: Smith, M. & Kollock, P. (eds.) Communities in Cyberspace*, Routledge, London, pp. 3-28.

Krämer, N. C. and Winter, S. (2008), "Impressions Management: The Relationship of Self-Esteem, Extraversion, Self-Efficacy, and Self-Presentation Within Social Networking Sites", *Journal of Media Psychology: Theories, Methods, and Applications*, Vol. 20, No 3, pp. 106-116.

Kramer, R. M. and Brewer, M. B. (1984), "Effects of group identity on resource use in a simulated commons dilemma", *Journal of Personality and Social Psychology*, Vol. 46, No 5, pp. 1044-1057.

Kuenzel, S. and Halliday, S. V. (2010), "The chain of effects from reputation and brand personality congruence to brand loyalty: The role of brand identification", *Journal of Targeting, Measurement & Analysis for Marketing*, Vol. 18, No 3/4, pp. 167-176.

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

Li, D., Browne, G. J. and Wetherbe, J. C. (2006), "Why do internet users stick with a specific web site? A relationship perspective", *International Journal of Electronic Commerce*, Vol. 10, No 4, pp. 105-141.

Li, X. (2011), "Factors influencing the willingness to contribute information to online communities", *New Media & Society*, Vol. 13, No 2, pp. 279-296.

Lin, H.-F. (2008), "Determinants of successful virtual communities: Contributions from system characteristics and social factors", *Information & Management*, Vol. 45, No pp. 522-527.

Lin, H.-F. and Lee, G.-G. (2006), "Determinants of success for online communities: an empirical study", *Behaviour & Information Technology*, Vol. 25, No 6, pp. 479-488.

Markus, M. L. (1987), "Toward a "Critical Mass" Theory of Interactive Media", *Communication Research*, Vol. 14, No 5, pp. 491-511.

Martins, C.S. and Patrício, L. (2013), "Understanding Participation in Company Social Networks", *Journal of Service Management*, Vol. 24, No 5, pp. 567-587.

Marzocchi, G., Morandin, G. and Bergami, M. (2013), "Brand communities: Loyal to the community or the brand?", *European Journal of Marketing*, Vol. 47, No 1, pp. 93-114.

Mathwick, C. (2002), "Understanding the Online Consumer: a typology of online relational norms and behavior", *Journal of Interactive Marketing*, Vol. 16, No 1, pp. 40-55.

Merriam, S. B. (2009), *Qualitative research: A Guide to Design and Implementation*, John Wiley & Sons, San Francisco, CA.

Muniz Jr, A. and O'guinn, T. C. (2001), "Brand Community", *Journal of Consumer Research*, Vol. 27, No 4, pp. 412-432.

- Nadkarni, A. and Hofmann, S. G. (2012), "Why do people use Facebook?", *Personality and Individual Differences*, Vol. 52, No 3, pp. 243-249.
- Nambisan, S. and Baron, R. A. (2007), "Interactions in virtual customer environments: Implications for product support and customer relationship management", *Journal of Interactive Marketing*, Vol. 21, No 2, pp. 42-62.
- Nunnally, J. C. (1978), *Psychometric Theory*, McGraw-Hill, New York, NY.
- Oliver, R. L. (1997), *Satisfaction: A behavioral perspective on the consumer*, McGraw-Hill, New York.
- Olson, J. C. (1978), "Inferential belief formation in the cue utilization process", *Advances in Consumer Research* Vol. 5, No pp. 706-713.
- Pai, P. Y. and Tsai, H. T. (2011), "How virtual community participation influences consumer loyalty intentions in online shopping contexts: An investigation of mediating factors", *Behaviour and Information Technology*, Vol. 30, No 5, pp. 603-615.
- Parasuraman, A., Zeithaml, V. A. and Malhotra, A. (2005), "E-S-QUAL: A Multiple-Item Scale for Assessing Electronic Service Quality", *Journal of Service Research*, Vol. 7, No 3, pp. 213-233.
- Pralhad, C. K. and Ramaswamy, V. (2004), "Co-creation experiences: the next practice in value creation.", *Journal of Interactive Marketing*, Vol. 18, No 3, pp. 5-14.
- Rafaeli, S. and Larose, R. J. (1993), "Electronic Bulletin Boards and "Public Goods" Explanations of Collaborative Mass Media", *Communication Research*, Vol. 20, No 2, pp. 277-297.
- Ren, Y., Kraut, R. and Kiesler, S. (2007), "Applying Common Identity and Bond Theory to Design of Online Communities", *Organization Studies*, Vol. 28, No 3, pp. 377-408.
- Rice, R. E. (1990), "Computer-mediated communication system network data: theoretical concerns and empirical examples", *International Journal of Man-Machine Studies*, Vol. 32, No 6, pp. 627-647.
- Sassenberg, K. (2002), "Common bond and common identity groups on the Internet: Attachment and normative behavior in on-topic and off-topic chats", *Group Dynamics: Theory, Research, and Practice*, Vol. 6, No 1, pp. 27-37.
- Schau, H. and Gilly, M. (2003), "We Are What We Post? Self-Presentation in Personal Web Space", *The Journal of Consumer Research*, Vol. 30, No 3, pp. 385-404.
- Schmitt, T. A. (2011), "Current methodological considerations in exploratory and confirmatory factor analysis", *Journal of Psychoeducational Assessment*, Vol. 29, No 4, pp. 304-321.
- Sicilia, M. and Palazón, M. (2008), "Brand communities on the internet: A case study of Coca-Cola's Spanish virtual community", *Corporate Communications: An International Journal*, Vol. 13, No 3, pp. 255-270.
- Snyder, M. (1974), "Self-monitoring of expressive behavior", *Journal of Personality and Social Psychology*, Vol. 30, No 4, pp. 526-537.

- Strauss, A. and Corbin, J. (1990), *Basics of Qualitative Research: techniques and procedures for developing grounded theory*, Sage, Thousand Oaks, CA.
- Tajfel, H. (1978), "Social categorization, social identity and social comparison", In: Tajfel, H. (ed.) *Differentiation between social groups*, Academic Press, London, UK, pp. 61-76.
- Taylor, S. A. and Baker, T. L. (1994), "An assessment of the relationship between service quality and customer satisfaction in the formation of consumers' purchase intentions", *Journal of Retailing*, Vol. 70, No 2, pp. 163-178.
- Turner, J. C. (1975), "Social comparison and social identity: Some prospects for intergroup behaviour", *European Journal of Social Psychology*, Vol. 5, No 1, pp. 1-34.
- Turner, J. C. (1981), "Towards a cognitive redefinition of the social group", *Cahiers de Psychologie Cognitive/Current Psychology of Cognition*, Vol. 12, No 2, pp. 93-118.
- Valck, K. D., Bruggen, G. H. V. and Wierenga, B. (2009), "Virtual communities: A marketing perspective", *Decision Support Systems*, Vol. 47, No 3, pp. 185-203.
- Valck, K. D., Langerak, F., Verhoef, P. C. and Verlegh, P. (2004), "The Effect of Members' Satisfaction with a Virtual Community on Member Participation", *Advances in Consumer Research*, Vol. 31, No 2004, pp. 56-57.
- Walsh, G., Dinnie, K. and Wiedmann, K.-P. (2006), "How do corporate reputation and customer satisfaction impact customer defection? A study of private energy customers in Germany", *Journal of services marketing*, Vol. 20, No 6, pp. 412-420.
- Wang, Y. and Fesenmaier, D. R. (2003), "Assessing Motivation of Contribution in Online Communities: An Empirical Investigation of an Online Travel Community", *Electronic Markets*, Vol. 13, No 1, pp. 33-45.
- Wasko, M. M. and Faraj, S. (2000), "'It is what one does': why people participate and help others in electronic communities of practice", *Journal of Strategic Information Systems*, Vol. 9, No 2-3, pp. 155-173.
- Wise, K., Hamman, B. and Thorson, K. (2006), "Moderation, Response Rate, and Message Interactivity: Features of Online Communities and Their Effects on Intent to Participate", *Journal of Computer Mediated Communication*, Vol. 12, No 1, pp. 24-41.
- Woisetschläger, D. M., Hartleb, V. and Blut, M. (2008), "How to Make Brand Communities Work: Antecedents and Consequences of Consumer Participation", *Journal of Relationship Marketing*, Vol. 7, No 3, pp. 237-256.
- Wolfenbarger, M. and Gilly, M. C. (2003), "eTailQ: dimensionalizing, measuring and predicting retail quality", *Journal of Retailing*, Vol. 79, No 3, pp. 183-198.
- Wu, C.-G., Gerlach, J. H. and Young, C. E. (2007), "An empirical analysis of open source software developers' motivations and continuance intentions", *Information & Management*, Vol. 44, No 3, pp. 253-262.
- Wu, J.-J., Chen, Y.-H. and Chung, Y.-S. (2010), "Trust factors influencing virtual community members: A study of transaction communities", *Journal of Business Research*, Vol. 63, No 9-10, pp. 1025-1032.

- Yoo, W.-S., Suh, K.-S. and Lee, M. B. (2002), "Exploring the Factors Enhancing Member Participation in Virtual Communities", *Journal of Global Information Management*, Vol. 10, No 3, pp. 55-71.
- Young, S. and Feigin, B. (1975), "Using the benefit chain for improved strategy formulation", *The Journal of Marketing*, Vol. 39, No 3, pp. 72-74.
- Yu, T.-K., Lu, L.-C. and Liu, T.-F. (2010), "Exploring factors that influence knowledge sharing behavior via weblogs", *Computers in Human Behavior*, Vol. 26, No 1, pp. 32-41.
- Yu, Y. T. and Dean, A. (2001), "The contribution of emotional satisfaction to consumer loyalty", *International Journal of Service Industry Management*, Vol. 12, No 3, pp. 234-250.
- Zeithaml, V. A., Berry, L. L. and Parasuraman, A. A. (1996), "The Behavioral Consequences of Service Quality", *Journal Of Marketing*, Vol. 60, No 2, pp. 31-46.
- Zhao, S., Grasmuck, S. and Martin, J. (2008), "Identity construction on Facebook: Digital empowerment in anchored relationships", *Computers in Human Behavior*, Vol. 24, No 5, pp. 1816-1836.
- Zhou, T. (2010), "Understanding Online Community User Participation: A Social Influence Perspective", *Internet Research*, Vol. 21, No 1, pp. 67-81.
- Zhou, Z., Zhang, Q., Su, C. and Zhou, N. (2012), "How do brand communities generate brand relationships? Intermediate mechanisms", *Journal of Business Research*, Vol. 65, No 7, pp. 890-895.

Appendix A – Structure and Content of the Survey Questionnaire

The respondents were asked to show their level of agreement with each statement. Each statement was accompanied by seven-point scale, ranging from 1 - “totally disagree” to 7 - “totally agree”. It was also added the option “I don’t know / not applicable”, which, when selected by a participant was taken as missing value.

Part 1: Perceptions about the CSN (instrument developed by the authors)

- The company provides up-to-date information on Facebook.
- The quantity of information provided through the Facebook page is enough without being excessive.
- The updates of the company Facebook page have the appropriate frequency.
- The company provides reliable information on Facebook.
- The proportion of advertising in the company Facebook page is adequate.
- The information provided by the company on its Facebook page is relevant.
- The activities organized by the company/brand on Facebook give members the opportunity to win good prizes.
- The prizes of the activities promoted by the company on Facebook are attractive.
- The activities organized by the company on Facebook are a good incentive for fans to participate.
- The activities organized by the company on Facebook are fun.
- The activities organized by the company on Facebook are interesting.
- The company page on Facebook is associated with a strong brand.
- The company page on Facebook is associated with a high reputation brand.
- The company page on Facebook is associated with a brand that stands out favorably in comparison with its competitors.
- The company page on Facebook is associated with a reliable brand.
- The company page on Facebook is associated with a brand of quality products/services.
- The company page on Facebook is associated with a brand which is in the forefront within its activity area.
- Being a fan of the Company transmits something positive about me.
- By becoming a fan of the Company, I express my personal tastes.
- Being a fan of the Company allows me to express my love for it.
- Being a fan of the Company transmits something positive about my lifestyle.
- I think that if people see the Company in my personal profile on Facebook will get to know me better.

- The company page on Facebook allows fans to know the opinion of other fans about its services/products.
- In the page of the company page on Facebook, fans can interact with other fans with similar interests.
- In the company page on Facebook, fans may exchange ideas with each other.
- In the company page on Facebook, fans can comment my experiences with its services/products.
- In the company page on Facebook, fans can create content and information which is useful for other members.
- Everyone can openly participate in the company page on Facebook.
- The company/brand answers to the messages posed by its fans on its Facebook page.
- The answers to the messages set up by fans on the company page on Facebook are useful.
- By means of the company page on Facebook, members can make questions about its services/products.
- The company page content on Facebook helps me doing a better utilization of its products/services.
- The information provided by the company on Facebook helps fans on daily life tasks that are related with its products/services.
- The company pages content on Facebook is related with its services / products.
- The company page on Facebook is a good support service for its customers.

Part 2: Attitudes and Behaviors towards CSN

Satisfaction with CSN (adapted from Li at al., 2006)

- I am satisfied with my decision to become a fan of this page on Facebook.
- My choice to become a fan of this page on Facebook was a wise one
- If I only learned about this page on Facebook today, I'd become a fan of this page in the same way.
- I am truly enjoying my experience as a fan of this page.

Cognitive component of Identification with CSN / Self-categorization (adapted from Nambisan and Baron, 2007)

- The other fans of this page think like me
- The other fans of this page are similar to me
- The other fans of this page behave like me
- The other fans of this page could be my friends

Affective component of Identification with CSN / Sense of Belonging (adapted from Allen and Meyer, 1990)

- I feel like 'part of the family' at the community of fans of this page

- Making part of the community of fans of this page has a great deal of personal meaning for me
- I feel 'emotionally attached' to the community of fans of this page

Loyalty to CSN (adapted from Kang et.al, 2007)

- I say positive things about this page to other people
- I would recommend this page to other people
- I intend to continuously make part of the group of fans of this page

Part 3: Attitudes and Behaviors towards company

Satisfaction with the Company (adapted from Oliver, 1980)

- Generally, I am satisfied with this company.
- I am sure it is the right thing to purchase this company's products/services.
- I am satisfied with my most recent decision to purchase from this company
- If I had it to do over again, I'd make my most recent purchase at this company.

Loyalty to Company (adapted from Zeithaml et al., 1996)

- I consider this company to be my first choice to buy the kind of product/service it offers
- I recommend this company's products/services to friends and relatives.
- I say positive things about this company to other people.
- I intend to do more business with this company in the next few years.

Part 4: Demographics and Psychographics

- Age
- Gender
- Education
- Time as a CSN member
- Reading posts
- Frequency of visits to CSN page
- Frequency of active participation in the CSN
- Use frequency of company services

Chapter 5: Overall Discussion and Research Contributions

In 2010 co-creation of value in the context of online customer communities and social media (Ostrom et al., 2010) was pointed out as a research priority for service science. This thesis, although initiated before 2010, is already an effort to respond to that concern. Feeling 'lost' in the middle of the scattered plethora of both academic and non academic work regarding online consumer communities, at the starting point, this research aimed at contributing to a holistic and systematized understanding of how companies create value with consumers through online communities. This first phase clarified and explored the conceptual domain of online communities, systematizing the knowledge gained into a taxonomy of the ways of company value co-creation with consumers through OCs. The development of the taxonomy had important managerial implications, as it devised a map of strategies that companies may adopt, namely showing that creating a new OCs is not the only way to take advantage of the OC phenomenon. This first phase was still crucial to also clarify the concepts, the boundaries and the research questions of the subsequent research stages.

Building upon the first study the second phase of this dissertation research focused on the new emerging type of OCs - Company Social Networks (CSNs). Through and extensive study of participation in CSNs by means of a mixed-method approach, this dissertation has not only contributed to a conceptualization of this recent phenomenon, but also to the understanding of the value of CSNs for members and host companies. This study showed how this new phenomenon differs from traditional OCs, and study results provide insights into the strategies companies may adopt to ensure the CSNs they develop are lively and create value for both members and the company. Below, we present each of the contributions of this dissertation in more detail.

Research question 1: Understanding company value creation through online communities

One of the major contributions of this dissertation is the development of a taxonomy presented in Paper I, which enables an overall understanding of the diverse ways companies may create value with consumers through OCs. Even though there is extensive extant literature regarding this subject (which already became a concern in the middle of the 1990s) there was a clear lack of integration that prevented its systematized understanding. Moreover, the new phenomenon of CSNs, which this first stage helped identifying, had not been addressed by OC research.

The results of Paper I show that companies are capturing value through four main different strategies, characterized by two vectors: (1) the ownership of the OC involved in the process of value creation (owned/not owned by the company); (2) type of OC involved in terms of revenue-generation (revenue-generating/non-revenue generating OC). First, through the provision of platforms which enable consumers to create, share and get information, sell and buy products and services, socialize and play. Second, through the development of consumer communities anchored in their core businesses, thus creating joint spaces for value co-creation with and among consumers. The third and fourth categories involve taking advantage of existing and already matured OCs, either run by their members or hosted by other companies with profit purposes. Each of these strategies may be put in practice in many different ways, which were detailed in Paper I. Although those ways of value creation already appeared in some kind of literature, to the best of our knowledge, there was no systematization of this research. The results of the first study were therefore important, not only to establish the ground for the subsequent research stages, but also to systematize and map existing knowledge about OCs in order to foster future research in this area.

Research question 2: Understanding Company Social Networks and its value creation potential

The first study, described in Paper I, revealed the emergence of a recent phenomenon at that time barely studied, which in Paper II, we named *Company Social Networks*. Due to the almost nonexistence of research about this online social phenomenon, the remaining thesis was devoted to its study through a mixed-method approach, translated into Papers I and II, with a qualitative and a quantitative nature, respectively.

Company Social Network Conceptualization

The study presented in Paper II contributes to an in-depth understanding of the new phenomenon of CSNs. For the first time, CSN was defined in a scientific article as a group of people (called 'followers', 'fans' or other designations, depending on the site terminology) connected to a company or brand within the boundaries of a social networking site. The focus of CSNs is usually the company brand or core offering. However, some companies develop their CSNs around a related subject with more involvement potential.

The main characteristics of CSNs were presented based on the qualitative study and in comparison with previously studied brand communities and online consumer communities. It was found that interaction among members is limited and the majority of communication comes from the host to the members. Member participation tends to happen as a reaction to a host intervention and the host is normally the most active participant. We also identified two specificities that may lead to this behavior. First, platform features such as Facebook typically favor one-to-one communication and give CSN managers a very dominant role. Second, we found that members are united by a common connection to a company or brand, but this connection is not necessarily characterized by enthusiasm or admiration, which distinguish them from brand communities, with which they are often confounded.

Drivers of Participation in Company Social Networks

The search for understanding the drivers of participation in CSNs covers a significant part of this dissertation, starting in Paper II and stretching across

Paper III. Through a qualitative study (Paper II) with a sample of members of the CSN of a food retail company on Facebook, two kinds of drivers were identified: (1) members' goals of participation and (2) CSN attributes that drive participation. While goals are what lead people to participate, i.e. the value that a person expects to gain through participation; attributes are the CSN characteristics that affect participation. Goals of participation in CSN seem to be similar to those found in previously studied OCs. We found that people join CSNs for informational, social, hedonic and material reasons. According to the benefits people are seeking, different attributes are more valued. In Paper II, nine general attributes that influence participation are identified. The attributes that members expect from a CSN are mostly focused in the company behavior and few address their CSN peers. In the face of these results, we concluded that members tend to view CSNs essentially as interactive and dynamic company websites and not as a community of people that share an interest and thereby socialize around it. The following qualitative study, described in Paper III, supports the findings of the previous qualitative study, by confirming that all the identified factors influence loyalty towards the CSN. Moreover, the results of Paper III also revealed that participation in CSNs has two major components: a functional component, which is dominant, and a social component. This understanding shed new light into the new phenomenon of CSNs (reinforcing their difference when compared with traditional OCs), and enabled the development of recommendations for the management of CSNs, to ensure that the CSN both prospers and creates value for the host company.

Participation Patterns in Company Social Networks

The exploration of the drivers of participation in CSNs suggested that members could be classified according to their motives to participate and the attributes they value more in CSNs. Although earlier research has already identified different types of participants in OCs, these results are new as they take into account the unique characteristics of this online social phenomenon, distinct from all the previously studied. Four theoretical types of members were identified: (1) enthusiasts – active participants with high stickiness to the CSN;

(2) information seekers – passive members with high stickiness to the CSN; (3) players – active members with low stickiness to the brand; (4) and compliant members – passive members with low stickiness to the CSN. The results suggested that enthusiasts and information seekers, for being more engaged, should be more valuable for the company. However all CSN members are somehow valuable, in a way that companies should address the needs of all the different types of participants and make efforts in order to attract participants to higher levels of engagement.

Antecedents of Participation in Company Social Networks

In the third phase (Paper III), a conceptual model of the antecedents and consequences of participation in CSNs was developed and tested through a quantitative study based on a survey with the members of a large retail company CSN. Starting with the nine dimensions identified in the qualitative study, through EFA some dimensions were merged creating broader ones. At the end of this analysis, we had six instead of nine dimensions. Structural equation modeling analysis showed that all those dimensions were important to explain loyalty towards the CSN, thus supporting the results of the previous qualitative study. However, the influence of those dimensions in loyalty to the CSN was mediated by different attitude variables. While more functional factors such as quality of communication or quality of information influence loyalty towards the CSN mainly through the mediation of the attitude variable satisfaction with the CSN, more social and hedonic factors such as self-expressiveness and activity quality influence loyalty to CSN through the mediation of the variable identification. These results suggest that while satisfaction with the CSN seems to derive mostly from the fulfillment of pragmatic informational needs. On the other hand, identification appears mainly related with the gratification of basic social needs, namely the need of self-presentation and need to belong. Overall, this indicates the existence of two clearly distinct components of CSNs: a service oriented component – members use CSNs as a support service, supplementary to the company core service; a social component – members are part of the CSN because they feel identified with the group of people that compose it.

Value for Companies through Company Social Networks

Another important contribution of this thesis concerns to the understanding of the the value created for companies through CSNs, in terms of generation of satisfaction and loyalty towards the company. Results showed that whereas the impact of satisfaction with the CSN in satisfaction with the company is quite important, identification with the CSN community has a feeble impact on satisfaction with company. This suggests that factors such as self-expressiveness and activity quality, which have a social and hedonic character, are important to attract new members and keep the community active and alive, but have a questionable impact on value created for the company through satisfaction and loyalty. Factors as communication quality and information quality, which are service related dimensions, have a significant impact on satisfaction and loyalty towards the host company. However, the results also showed that they fail to engage members through identification.

Although these results may at a first glance suggest that prominence should be given to functional, service-related factors, a more in-depth analysis gives us a different perspective. Although identification has not a direct impact on loyalty towards the company, its benefits in the long term should be significant. Identification, as a sense of belonging, should more strongly commit members to the community, which means that these identified members will keep loyal and in close contact with the CSN (even if passively), creating valuable opportunities for companies to co-create value with those consumers.

Managerial Implications

The overall results of this thesis can be useful for CSN managers' activities. The first part of the dissertation, corresponding to Paper I, enables companies to get a general overview of all the choices they have in order to capture value through OCs of consumers. In this context, the developed taxonomy may be a valuable tool for companies to position themselves when planning their social web strategies.

The second part, which integrates Papers II and III, is particularly relevant for companies given the current prominence of CSNs. Despite the marketing buzz about the opportunities of customer engagement through these CSNs, our studies suggest that reality is quite different. They indicate that truly engaged members (who participate both actively and continuously over time) are extremely rare. In fact, the most engaged members we found were typically passive and drawn by information that is easily accessible. Other members make one-off or a few active participations just to get in a contest or get a prize, although they do not have any particular interest for the company. And there are yet others that become members by friends' influence but totally disregard all the content created within the CSN. This classification may be valuable for companies in the process of developing their social web strategy, in a way that real value can be co-created along with these (often) thousands of consumers that compose their CSNs.

Paper II already pointed out the importance of CSN pages as important points of promotion and customer support. In the following study, described in Paper III, we confirmed that information quality and communication quality are the most important factors of satisfaction with CSNs which, in turn, is a good predictor of loyalty to the CSN. Moreover, satisfaction with the CSN proved to be a good predictor of satisfaction with the host company that, in turn, has a strong positive impact on loyalty to the host-company. These results indicate that managers of CSNs must focus in promoting the regular creation of informative, not excessive, relevant content, and in generating interactive communication between members and particularly between company and consumers, assuming CSNs as important channels for consumer support, characterized by openness and responsiveness.

The quantitative study also showed that factors such as self-expressiveness and thematic consistency significantly influence loyalty to the CSN through the mediation of identification with the community. This suggests that creating a clear CSN's purpose, capable of generating a sense of belonging to a community, and developing the CSN consistently around that purpose is important to ensure loyalty to the CSN. The study also indicated that, activities

(like contests and games) may have some importance in generating a sense of belonging. However, it was also found that identification with the CSN community is not a good predictor of satisfaction with the host company. Moreover, loyalty to the CSN has no impact in loyalty towards the company. This may be interpreted as a suggestion that generating identification with the community is less relevant than promoting satisfaction. We believe, however that, although identification has not a direct impact on loyalty towards the company, its benefits in the long term may be significant. Members that feel identified with the community have the higher potential of involvement with the CSN, which means contact with the company and the brand. Those contacts should be taken by firms as opportunities to co-create value with consumers.

Chapter 6: Conclusions and Future Work

This dissertation started to be developed when the euphoria of businesses around OCs was reborn after a period of disenchantment following the dot-com bubble burst. Terms such *Web 2.0*, *social web* and *crowdsourcing* had emerged and were attracting the attention of businesses, in search for new opportunities and looking for defending themselves against possible threats. However, despite the *buzz*, there was an evident need to more systematically understand what really has been and was being done by companies to create value both for consumers and for them through OCs. In reaction, this dissertation started with a study whose aim was to fulfill that need by creating a taxonomy that offers a conceptualization that systematizes a vast amount of diffuse information about the ways through which companies are creating value for themselves and consumers using OCs. Whereas from a managerial perspective, this taxonomy facilitates the positioning of companies concerning their social media strategy, from an academic perspective, it opens doors to future research in this field, namely by establishing a theoretical starting point for the interested researchers. Indeed, each branch of this taxonomy deserves further in-depth study.

Along the way, the identification of a novel and understudied phenomenon, different from all the previously researched OCs of consumers, to which we called Company Social Networks, has delineated the remaining dissertation path. The study of CSNs constituted the most significant part of the thesis, in which a qualitative study complemented by a subsequent quantitative study enabled a thorough understanding of the phenomenon. CSNs were defined and characterized, opening the path to a new research field. The qualitative study enabled the identification of the drivers of participation, showing that people are members of CSNs in order to fulfill both functional and social needs, (the first being more preeminent than the second ones in the case studied). The subsequent quantitative study showed that whereas functional factors, such as quality of information and communication, are antecedents of satisfaction with the CSN, social-oriented factors, such as self-expressiveness

and activity quality, predict identification with the CSN community. All in all, these studies suggest that CSNs include two different components. The first is mainly social and hedonic in nature (traditional community component) and the second has an instrumental character (service support component). This reveals that people use CSNs as a way of presenting themselves to others and to socially connect with people with whom they share an interest, but at the same time they use them as host-companies' supplementary services, as a channel to receive consumption-related information, to make questions and to give feedback. Drawing the attention to the interest of studying this phenomenon from a service perspective, this conclusion is especially interesting for future research, particularly in the service area..

The quantitative study simultaneously showed that functional benefits of CSNs are predictors of satisfaction and loyalty towards the host company (through the mediation of satisfaction with the CSN) and that the same does not happen regarding social benefits. This suggests that CSNs are value-creating tools for companies, especially when they are able to promote the functional value of their CSNs.

This research was not immune to some limitations. First, this is a fast changing field. Therefore, the reality of the studied phenomena, may presently be somehow different. Second, it is important to note that the research about CSNs was predominantly based on a specific case. Firstly, the CSN under study is hosted by a large Portuguese food retail company. Moreover, the CSN is not directly anchored in the company core brand, but instead in a supplementary recipe service which the retailer publicly offers in its website. Therefore, further research can extend the study of this phenomenon to other contexts. One research direction is to study CSNs in other industries, such as health care or education. Another direction is to study other CSNs that have different balances in terms of traditional OC component and service support component. Future research can shed light into how the factors of participation behave in different contexts, and to establish comparisons in order to identify commonalities and dissimilarities. Understanding whether the relative importance of functional

value and social value varies according to the context may provide important research and managerial contributions.

The overall dissertation research has generated a set of results which fulfilled significant gaps on the social web-related and business-related scientific literature, responding to the research questions which were set up at the starting point of this endeavor. Conceptually, this research is groundbreaking as it not only enabled the integration of a set of already existing concepts but also the development of new ones, with a particular focus in the concept of CSN. This thesis constitutes a first effort of definition as well as of characterization of this phenomenon by empirically exploring its processes of participation, namely by comparison with other previously studied similar phenomena. It also supports empirically the potential of CSNs for company value creation, namely by confirming the relationship between satisfaction and loyalty with the CSN and satisfaction and loyalty towards the host-company. Therefore, we hope this dissertation contributes to establish the foundations for future work in the area of CSNs. We also hope that managers who face the challenges of understanding and creating value through social web can take advantage of this work as a source of insight when devising their strategies in the field of social web and especially regarding their CSNs.

References

- Armstrong, A. and Hagel, J. (1995), "Real Profits from Virtual Communities", *The McKinsey Quarterly*, Vol. 3, No pp. 127-141.
- Barnatt, C. (1998), "Virtual communities and financial services – on-line business potentials and strategic choice", *International Journal of Bank Marketing*, Vol. 16, No 4, pp. 161–169.
- Bressler, S. and Grantham, C. (2000), *Communities of commerce: Building internet business communities to accelerate growth, minimize risk, and increase customer loyalty*, McGraw-Hill, Inc. New York, NY, USA.
- Bryman, A. (2012), *Social Research Methods*, Oxford University Press, New York, NY.
- Caelli, K., Ray, L. and Mill, J. (2008), "'Clear as Mud': Toward Greater Clarity in Generic Qualitative Research", *International Journal of Qualitative Methods*, Vol. 2, No 2, pp. 1-13.
- Charmaz, K. (2006), *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis* (Introducing Qualitative Methods series), Sage Publications Ltd, London, UK.
- Churchill Jr, G. A. (1979), "A paradigm for developing better measures of marketing constructs", *Journal of Marketing Research*, Vol. 16, No 1, pp. 64-73.
- Creswell, J. W. (2009), *Research Design: Quantitative, Qualitative and Mixed-methods Approaches*, Sage Publications, London, UK.
- DeVellis, R. F. (2012), *Scale development: theory and applications*, Sage Publications, Thousand Oaks, CA.
- Fishbein, M. and Ajzen, I. (1975), *Belief, attitude, intention and behavior: An introduction to theory and research*, Addison-Wesley, Boston, MA.
- Gerbing, D. W. and Anderson, J. C. (1988), "An updated paradigm for scale development incorporating unidimensionality and its assessment.", *Journal of Marketing Research*, Vol. 25, No May, pp. 186-192.
- Glaser, B. (1992), *Emergence vs Forcing: Basics of Grounded Theory Analysis*, Sociological Press, Mill Valley, California.
- Glaser, B. and Strauss, A. (1967), *The Discovery of Grounded Theory: Strategies for Qualitative Research*, Aldine Transaction, New Brunswick, USA.
- Goulding, C. (2002), *Grounded Theory: A Practical Guide for Management, Business and Market Researchers*, Sage, London, UK.
- Hagel, J. and Armstrong, A. (1997), *Net Gain: Expanding Markets Through Virtual Communities*, Harvard Business School Press, Boston, MA.
- Hanna, R., Rohm, A. and Crittenden, V. L. (2011), "We're all connected: The power of the social media ecosystem", *Business Horizons*, Vol. 54, No 3, pp. 265-273.

- Howe, J. (2008), *Crowdsourcing: Why the Power of the Crowd Is Driving the Future of Business*, Crown Business, New York, NY.
- Johnson, R. B., Onwuegbuzie, A. J. and Turner, L. A. (2007), "Toward a definition of mixed methods research", *Journal of Mixed Methods Research*, Vol. 1, No 2, pp. 112-133.
- Kozinets, R. (1999), "E-Tribalized Marketing? The Strategic Implications of Virtual Communities of Consumption", *European Management Journal* Vol. 17, No 3, pp. 253-264.
- Martins, C.S. and Patrício, L. (2013), "Understanding Participation in Company Social Networks", *Journal of Service Management*, Vol. 24, No 5, pp. 567-587.
- McWilliam, G. (2000), "Building Stronger Brands through Online Communities", *Sloan Management Review*, Vol. 41, No 3, pp. 43-54.
- Merriam, S. B. (2009), *Qualitative research: A guide to design and implementation*, John Wiley & Sons.
- Morgan, D. L. (1998), "Practical strategies for combining qualitative and quantitative methods: Applications to health research", *Qualitative Health Research*, Vol. 8, No 3, pp. 362-376.
- O'Reilly, T. (2007), "What is Web 2.0: Design Patterns and Business Models for the Next Generation of Software", *Communications & Strategies*, Vol. 65, pp. 17-37.
- Parasuraman, A., Zeithaml, V. A. and Malhotra, A. (2005), "E-S-QUAL: A Multiple-Item Scale for Assessing Electronic Service Quality", *Journal of Service Research*, Vol. 7, No 3, pp. 213-233.
- Preece, J., Schubert, P. and Tan, Y.-H. (2004), "Online Communities in the Digital Economy", in Proceedings of the 37th Hawaii International Conference on System Sciences, Waikoloa, Hawaii.
- Rennie, D. L. (1998), "Grounded Theory Methodology: The Pressing Need for a Coherent Logic of Justification", *Theory & Psychology*, Vol. 8, No 1, pp. 101-119.
- Rheingold, H. (1993), *The Virtual Community: Homesteading on the Electronic Frontier*, Addison-Wesley Publishing, Reading, MA.
- Strauss, A. and Corbin, J. (1990), *Basics of Qualitative Research: techniques and procedures for developing grounded theory*, Sage, Thousand Oaks, CA.
- Timmers, P. (1998), "Business Models for Electronic Markets", *Electronic Markets*, Vol. 8, No 2, pp. 3-8.
- Valck, K. D., Bruggen, G. H. V. and Wierenga, B. (2009), "Virtual communities: A marketing perspective", *Decision Support Systems*, Vol. 47, No 3, pp. 185-203.
- Weber, R. P. (1990), *Basic content analysis*, Sage, London, UK.
- Wellman, B., Salaff, J., Dimitrova, D., Garton, L., Gulia, M. and Haythornthwaite, C. (1996), "Computer Networks as Social Networks: Collaborative Work, Telework, and Virtual Community", *Annual Review of Sociology*, Vol. 22, No pp. 213-38.

Worthen, B. (2008), "Why most online communities fail", *Wall Street Journal*, July.