

Web 2.0 as a marketing tool: an investigation in the furniture industry

Marco Bettiol,

Department of Economics and Management “Marco Fanno”, Università di Padova

Eleonora Di Maria,

Department of Economics and Management “Marco Fanno”, Università di Padova

Vladi Finotto

Department of Management, Università Ca' Foscari Venezia,

vfinotto@unive.it

Abstract

The steady increase in web 2.0 adoption rate by internet users has conveyed a great deal of attention of marketing practitioners and scholars on the opportunities presented by active and participant consumers. While marketing literature has focused on the potential of these instruments as marketing tools to be implemented by firms, few investigations have shed light on the actual adoption of social media and web 2.0 tools and services among firms in specific industries. The paper presents the results of an analysis of the diffusion of web 2.0 services and technologies among a sample of firms in the furniture industry, as to assess the maturity – or lack thereof – of adoption models as well as the ways in which these instruments are used by small and medium-sized firms.

Twitter has a more limited diffusion than Facebook (3.8%), although its intensity of use is higher: 34.38 posts every three months on average. The features of this technology could help in understanding this higher intensity. In Twitter, post is very brief (140 characters maximum) and this may influence the increased number of publication. In addition, the typology of contents plays a role in the number of post published. More than 42% of the messages appearing on twitter are syndicated and automatically copied by other sources of information while the use of this mechanism in Facebook is less relevant (28%). In terms of typology of contents published, we observe a combination of editorial and promotional posts. However, compared to Facebook (9.4%), there is a small group of firms that use twitter only to communicate original and new information (17.0%).

Youtube is the second largest Web 2.0 tool used by firms of our sample, with a rate of 5.9%, in terms of official presence, and slightly higher if we sum also unofficial presence (6.8%). Nevertheless, if we consider the presence of videos that are related to the firm considered or whose content has the firm or its product as a subject¹ the percentage increases to 17%. Only 35% of the firms that have a presence on Youtube have an official channel. The others are on Youtube because users upload videos that they produced personally or that they found on other information channels (e.g. Tv commercial recorded and published on Youtube). From this perspective, users have a great influence in the quality of the presence of the firm and its product on Youtube.

Mutatis mutandis, the same could be said about Vimeo. It has a limited diffusion, only 1.1% if we sum official and unofficial presence, but if we consider the content published in Vimeo there is a greater proportion that involves the firm: 6%.

Blog is used by 2.4% of the firm. The content are mainly produced ad hoc (65.5%) for this communication channel with a limited use of syndication (6.9%). We also checked for the year of foundation of the blog, and the 82% of the active blogs were created before 2009. That is to say that this tool seems to have reached the maturity due to the introduction of new Web 2.0 solutions like Facebook and Twitter. Moreover, blogs are web spaces that need constant attention and investments in terms of content production and interaction with the users/customers.

It is interested to note that firms adopting Facebook have a higher propensity than the average to use Web 2.0 (see Tab. 6). In fact, 10% of those firms have also a blog, 22% have

¹ This result was obtained using the name of the firm in Youtube search engine.

Twitter, and 48% have a presence on Youtube. From this perspective, we may conclude that firms interested in Web 2.0 tend to combine different technologies of this nature.

Tab. 6: Web 2.0 used by firms in Facebook

Blog	10%
Twitter	22%
Youtube	48%

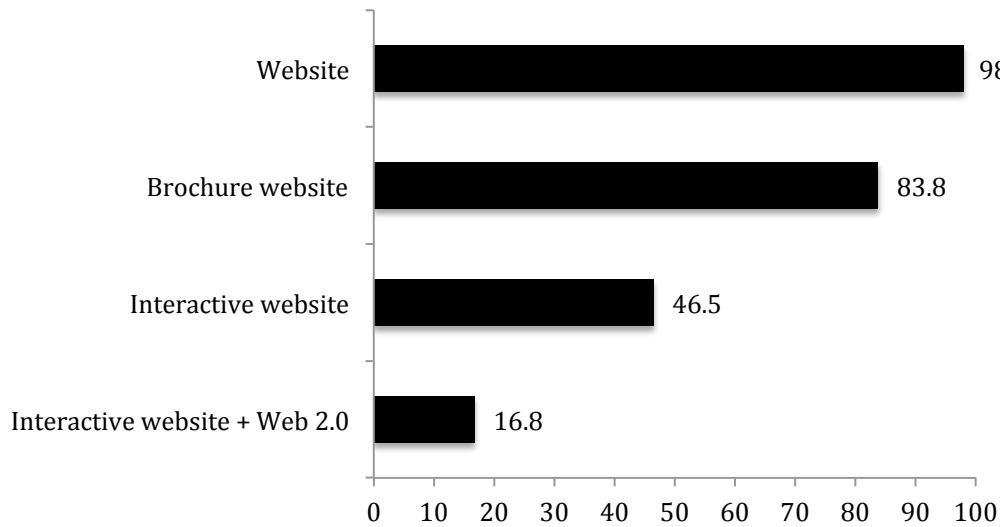
Discussion

The results pointed out different approaches adopted by firms of the furniture industry in terms of use and adoption of website and Web 2.0. In order to analyze these different approaches and to synthesize the different use of these technologies we developed 4 indexes:

1. The first index is related to the diffusion of what we could consider a basic (commodity) technology: the website, that means for a firm to have just a web address and at least a web page related to the firm and its brands.
2. The second index that we named “Brochure website” is a website that replicate online the firm’s catalogue (the presence of a catalog of the products and the indication of the firm’s e-mail customers can use to interact with) and can be considered as a digital version of the Brochure.
3. The third index named “Interactive website” is the Brochure website with the addition of an online newsletter. This feature implies a more pro-active communication approach of the firm towards customers.
4. The fourth index is related to firms that have an Interactive website and use at least one of the Web 2.0 tools included in the analysis: Blog, Facebook, Twitter, Youtube and Vimeo.

As is indicated in Figure 1, almost all the firms (98%) in the furniture industry has a website with very basic information (address, telephone number, etc.), 83.8 % of the firms have a Brochure website, 46,5% have also additional forms of interaction (newsletter) (Interactive website) and 16,8% are using a Web 2.0 tool in addition to an Interactive website.

Figure 1: Different approaches to the Web-based communication



Our analysis shows that the vast majority of firms invest in the website more than in new emerging web 2.0 technologies, with an emphasis on static information. Firms use website as a digital repository dedicated to sharing basic information about products and with a very limited use of interaction. Firms prefer to put their attention on the quality of these contents focusing on multilingual versions and aesthetics and to manage the interaction with the customer through traditional channels (such as face-to-face interaction or through distributors). From this perspective we could say that firms of the furniture industry are stuck to Web 1.0 solutions and in terms of technologies they are using solutions that go back to 10 years ago.

On the contrary, a small group of firms are using more interactive tools on regular basis and only 16.8% Web 2.0. Firms do not seem to be interested in investing in more a dynamic exchange of information with their customers. As demonstrated also in other studies (Chiang et al. 2010), the fact that the use of Web 2.0 tend to be concentrated among firms that adopted an *ecosystem* of Web 2.0 tools – as we showed above concerning Facebook – demonstrate that the diffusion of these tools is driven by the capabilities of the firm in managing a complex web of interaction with customers through multiple platforms, by using different “technological languages” and content development processes. The adoption of Web 2.0 does not seem to be limited by the learning curve of new online tools but by the interest (and the capability) of the firm in interacting with consumers. While on Web 1.0 the information and the quality of the presence of the firm can be easily controlled by the firm, in Web 2.0 environment this is hardly possible for two main reasons: Web 2.0 platforms are managed by external agents and they are based on social networks and distributed forms of interaction.

5. Conclusions and managerial implications

The limited use of Web 2.0 is critical in relation to the increasing popularity of these tools among consumers. As the result on the use of Youtube pointed out, consumers demonstrate a higher competence and willingness in using Web 2.0, and they are autonomous in the production of content and information on those platforms. Facebook, Twitter and Youtube are born to let users interact with each other and to share opinions, ideas and impressions in different forms (audio, video, images). More importantly, Web 2.0 is the place where conversations about products and their use are taking place and where new aesthetic tastes and trends are spread (when not created). From this point of view Web 2.0 can be considered as digital squares and cafes where consumers talk and discuss.

Not being present in this online environment causes not only difficulties in understanding new trends and new needs coming from consumers but even to know what they think about the firms and its products. On regular basis, consumers express their opinions online especially on social media where they can interact with their friends or people with similar interests, independently to the communication initiatives undertaken by firms offline (e.g. advertising). Although firms may find difficult starting a conversation with consumers, they could benefit from being present on Web 2.0 platforms by learning what consumers say and discuss. For doing so, firms need not only to get acquainted with these tools but also to learn the new culture of interaction that social networks imply. As far as our results point out, this is still a major challenge that firms of the furniture industry should face.

Our study highlights a cautious approach by SMEs towards the new generation of interactive services as well as a substantial delay of a number of companies in adopting up-to-date interactive and multimedia-savvy websites. We believe that the causes and determinants of such a delay and caution should be investigated thoroughly in order to clearly assess whether there are specific pre-conditions that influence the effective leverage of web 2.0 applications. To our knowledge, no study has directly tackled the integration of all the available services and applications (including websites and web 2.0 applications). One hypothesis we raise as a result of this study is that the effective entry in the spaces of web 2.0 requires a certain degree of maturity with more traditional solutions, such as rich, highly connected, highly-usable websites. All of the studies concentrating on the impacts of web 2.0 on marketing strategies should explicitly investigate the relationship existing between mature models of website adoption and development and web 2.0 actions and strategies. We do not

contend that firms can take part into the dynamics of web 2.0 only if they have sophisticated and advanced websites. What we maintain is that the effectiveness of web 2.0 presence can be to some degree determined and connected to the experiences and learning processes the company has gone through in the establishment and maintenance of a highly-interactive and content-rich website.

Moreover, we believe that, marketing wise, the relation between the presence on web 2.0 channels and the nature and maturity of companies' websites should be thoroughly investigated by marketing scholars. In particular we suggest that web 2.0 applications and spaces can be leveraged and used by firms as a stimulating entry points towards a more controlled and proprietary brand space, constituted by the firms' websites. The issue of dissatisfaction caused by landing from web 2.0 spaces to static, non-dynamic, poor and functionally simplistic websites and the consequent harm to brand image should be tackled by further studies.

Our research has a number of limitations. First of all, although aiming at being exhaustive in providing the figures related to the use of web 2.0 applications by SMEs, it focuses just on one industry, and that could bias the results or exclude the effect of industry specific factors. Moreover, we recognize that the selection of the web 2.0 applications to investigate is to some extent arbitrary and that a future study should take into account eventual specificities in the use of particular web 2.0 applications among consumers of specific products. In other words, while the applications we chose are the most diffused in general, the selection does not account for the relative importance of specific channels and services for consumers of specific products. It does not seem the case that the companies we analyzed have a presence in other channels and applications, but that does not resolve the issue entirely, in particular if comparative analyses among SMEs belonging to different industries are to be made in the future. Another limitation of the study is that we do not controlled for specific performance indicators such as traffic on specific channels and in particular the influence in terms of traffic of web 2.0 channels towards the website. At the moment such an analysis is not technically possible, although it seems fundamental in order to assess more precisely the performances of firms in digital spaces. A deeper database with a larger number of indicators and measures would also allow for a more sophisticated, and significant, statistical analysis.

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Tab. 5: The adoption of Web 2.0 in furniture firms*

	Official Presence (%)	Non-Official Presence (%)	Updating Frequency	Content typology (%)						Languages (%)			N. of Contacts (Median)	N. of Users' Comments (Mean)
				N. of posts in 3 months (mean)	ad hoc	Syndication	ad hoc + syndic	Promotion	Editorial	Promotion + Editorial	Italian	English		
Facebook	10.4	0	14.40	29.3	28	28.0	22.1	9.4	51.7	45.3	26.0	12.0	168.5	np
Twitter	3.8	np	34.38	27.7	42.6	14.9	23.4	17.0	44.7	20.0	40.0	40.0	7.96	np
Youtube	5.9	0.9	15.94	np	np	Np	51.7	60.7	40.3	np	np	np	np	0.06
Vimeo	0.7	0.4	2.93	np	np	np	41.8	59.6	50.0	np	np	np	np	0
Blog	2.4	np	4.00	65.5	6.9	10.3	np	np	np	44.8	13.8	41.4	np	24.9

*Np: not pertinent

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Abstract

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1. Introduction

The steady increase in web 2.0 (O'Reilly, 2005) adoption rate by internet users – instruments such as social networks, blogs, wikis, user-generated content repositories and the like – has conveyed a great deal of attention of marketing practitioners and scholars on the opportunities presented by active and participant consumers (cf. Ozuem et al., 2008). The distributed nature of internet communication and the active role of users in the creation and distribution of contents call scholars and practitioners alike to better frame the implications of these services and technologies on marketing strategies and practices (Bernoff, Li, 2008; Simmons, 2008).

Recent literature has emphasized how information and communication technologies have amplified and empowered emerging trends in consumer behavior and in consumption practices. Particular attention has been devoted to web technologies as enablers of complex networks of relations among individuals sharing interests, ideas, values and a commitment for specific consumption practices (Cova, 1997; Simmons, 2008; Di Maria, Finotto, 2008; Zhang, 2011). Within these networks, information developed and distributed by firms tend to be contrasted, or at least completed, by the information flowing among individual consumers

within community settings (Ozuem et al., 2008). Moreover, commercial communication can be amplified and can leverage upon informal word-of-mouth among consumers (Kozinets et al., 2010; Riegner, 2007) and can benefit from consumers creative inputs and contributions. Not all of the implications of these novel communication environments can be said to be strategically positive for firms. On the contrary, a variety of studies has highlighted how consumers can explicitly and purposefully confront communication flows coming from the corporate word, with the clear intent of boycotting and contrasting information emitted by firms (Holt, 2003; Krishnamurthy, Kucuk, 2009).

Literature on marketing and communication on web 2.0 and social media environments portrays a marketing framework within which firms do not control exclusively processes of information creation and diffusion. Beyond representing a challenge, such situation offers clearly interesting opportunities such as that of leveraging consumers' creativity and participation. Recent analyses (cf. Bernoff, Li, 2008) maintain that the potential for value creation in these distributed communication environments is remarkable, but at the same time that firms need come to terms with, and learn how to use, these instruments. In the spaces of social media, companies can create value through the improvement of their offer, through the capitalization of consumers' feedbacks both on products and messages, can improve their brand image and provide a more effective customer support system (Bernoff, Li, 2008; Wirtz et al., 2010).

While there has been a mounting consensus among communication professionals, agencies and analysts on the need for firms to adopt web 2.0 technologies to improve their marketing effectiveness and efficiency, scant evidence has been produced on the actual diffusion of these instruments among firms on a detailed basis, specifically as far as small firms are concerned. Many studies have explored such phenomenon through a qualitative approach (e.g. Bell and Loane, 2010), based on a consumer perspective (e.g. Riegner, 2007) or related to specific use of Web 2.0 tools in selected industries (Lim et al. 2011). Although web 2.0 instruments have been rapidly adopted by large organizations and advertising spenders as yet another lever in their communication apparatus, a vast majority of small and medium-sized enterprises did not develop a presence in the space of mediated communication.

Uncertain approaches to social media and web 2.0 need not to be considered as a result of a generic delay of smaller companies towards technologies. On the contrary, recent positive trends in global online advertising spending (The Economist, 2011; IAB-PWC, 2011) show that firms of different sizes and industries have clearly grasped the importance of Internet as a tool to communicate to a "multichannel" consumer (Ceccarelli, 2009).

On the contrary, the obstacle to the development of an effective presence on the interactive spaces of web 2.0 and social media seems to be the difficulty in managing a substantial opening of the firms' communication processes and in losing – at least partially – the control over communication regarding brands and products (Bernoff, Li, 2008; Krishnamurty, Dou, 2008; Costantinides, Fountain, 2008).

This article aims at contributing to the extant literature on marketing on web 2.0 spaces through an analysis of the actual presence of firms within a specific industry: furniture. In order to orient future studies on the determinants of web 2.0 use and hindrances, the article aims at providing with an exhaustive analysis of how much web 2.0 is used by firms in a specific industry and what types of companies are using these instruments more than others. In detail, the study aims at measuring the presence of furniture firms in web 2.0 spaces and the degree of integration between these presences and initiatives and more “traditional” types of Internet presence, such as websites.

The paper is structured as follows: the second section discusses about the theoretical implication of the Internet on firm's marketing communication strategies; the third section focuses on the rise of web 2.0 tools and how they promote a more interactive relationships among customers and between the firm and its customers; the fourth section explores the firm's opportunities of value creation based on the web 2.0; the fifth section discusses the use and diffusion of web 2.0 in the furniture industries based on an empirical international analysis of 1,225 furniture firms; the last session proposes conclusive remarks and outline future research activities.

2. From publishing to interaction: the rise of Web 2.0

In its original form the web can be considered as a virtual environment where individuals can share contents they created in an easy and cheap way (YouTube, Flickr and MySpace are three of the most famous and remarkable examples of such processes). From the marketing perspective, this means to access to new sources of information and content provision, that were not even possible before Internet. Studies on online communities in their multiple forms (e.g. Hagel, Armstrong, 1999; Kozinets, 1999; Miller et al. 2008; Micelli, 2000) stress the interactive dimension of such process and the relevance for many-to-many communication dynamics (Jones, 1995).

Among their many features, online communities are characterized by the fact that, first, members are simultaneously authors and addressees of the online contents, and second that the communication is many-to-many. This approach is able to mix customized and on demand content and the efficiency of the content distribution model typical of push communication (Mandelli, 1998). From this point of view, virtual communities have been described as important content partners that can transfer to the firm insights about the products and their uses, together with information on the social dimension of consumption (neglected by one-to-one web marketing approaches). The firm can rely on those groups of committed customers to develop shared meanings related to its offering, also nurturing its brand strategy (Di Maria, Finotto, 2008; Fueller, von Hippel, 2008). Hence, the firm has to manage multiple sources of online content generally related to its products and offering, however with no guarantee of a complete control over the entire process.

The shift from publishing to interaction as the main characteristic of the online business communication has become extensively cited with the rise of Web 2.0. This concept (proposed by Tim O'Reilly in 2005) is based on the idea of online collaboration, where individuals can use the web to share files and content freely and in a symmetric way (in a peer-to-peer fashion). In the same way, through the participatory approach that Tapscott and Williams described and defined Wikinomics (2007), users enter into the innovation process by improving existing products and services or contribute to develop new ones.

Emerging studies on Web 2.0 has provided an initial mapping of Web 2.0 tools (e.g. Andriole, 2010; Chiang et al. 2010; Levy, 2009), including: wikis, blogs, video sharing, open source software, peer-to-peer (P2P) or free download, RSS filters, mashups, podcasts, tag cloud, social bookmarking (folksonomy), social networks, crowdsourcing. Even though there is an shared classification of Web 2.0 technologies, those studies described the business implications of such kinds of technologies for firm's processes and specifically in terms of web marketing management. Web 2.0 tools have important impacts on business processes (Andriole, 2010) by transforming the Web into an effective spread infrastructure upon which to develop new knowledge management strategies that involve customers (Levy, 2009) and new business models (e.g. Wirtz et al., 2010).

The main characteristics of the Web 2.0 is that it becomes the platform for the exploitation of collective intelligence, where each individual can provide insights, suggestions and contents not necessarily against economic incentives (e.g. Bughin, 2007). While this issue has been already explored in studies on communities of consumption and related co-production

processes (Sawhney, Prandelli, 2000; Cova, Dalli, 2008), it becomes a process involving the mass of customers only with the web 2.0.

Another crucial and related phenomenon related to the Web 2.0 is in fact the so-called folksonomy (a term that indicates a bottom-up, user-generated taxonomy). In folksonomies, there is not a hierarchical taxonomy of the online contents provided by a unique user (e.g. the firm). Instead it is collectively built through the contribution of on line users. It is a practice and a method of classification of categorized contents also known as collective tagging, social classification or social indexing, in which the categories are created bottom-up.

In the Web 2.0 environment each user can easily become a publisher of new original content or mixed contents gathering from different (open) sources. Social software – e.g. weblogs - gives to everyone the opportunity to publish content referring to different topics and share such content (ideas, pictures, video etc.) with others, also through the social tagging process. Moreover, one can create online connections with other “virtual spaces” where a specific topic is developed or discussion takes place e.g. through the RSS (Really Simple Syndication) easily and for free. The rise of new cheaper and easy-to-use online services and applications increases customer’s familiarity with the web and her increasing active role in the publishing and communication process.

The social dimension of the Web 2.0 is a key asset of this new communication and interactive electronic platforms. The “smart mobs” (Rheingold, 2003) are able to influence product access and purchasing, based on viral marketing dynamics. Such processes impacts on firm’s communication strategies as firms benefit from the active role of “smart” users embedded into social networks, avoiding expensive and often ineffective advertising campaigns.

In addition, such distributed process involved an increased number of individuals at multiple levels, representing interesting targets for firms. Internet allows firms identifying online niches of customers – the “long tail” (Anderson, 2006) – by becoming a fruitful e-commerce channel for the firm. Nevertheless, from a firm communication and commercial strategy perspective, the web 2.0 improves this process of connecting and intercepting niches of potential customers that receive more visibility in the new electronic platform (e.g. through blogs or social networks).

In the first stage of the Web the online communities have played a crucial role in supporting focused on line interaction among passionate people, interested to share information and develop online relationships around common practices (Micelli, 2000). Scholars have specifically emphasized their contribution in the innovation process based on

collaboration (Shah et al, 2003) or analyzed how communities can influence purchasing activities of members (Vianello, Mandelli, 2009). The web 2.0 infrastructures transform such dynamics – related specifically to market niches – by enlarging the interaction even among independent individuals, also transforming their approaches to the web.

The extraordinary success of the social network Facebook (which currently has more than 500 million users) shows that the web is becoming ubiquitous and it is entered into the daily life of the majority of consumers/individuals. Social media transform the online communication into a mass process, with relevant impacts on the firm's communication strategy. Those dynamics refers to the User-Generated Content (UGC) paradigm where each user can create and publish own her content.

Customers' autonomy and competences to collaborate are no more under the firm's control and, hence, it is not able to control or – even worst – access to the communication circuits in which firm-related content is produced and shared (Bernoff, Li, 2008; Kozinets et al., 2010; Fueller, von Hippel, 2008; Cova et al., 2007). The world of blogs and social software allows customers-web users to find or created original, updated (and often entertaining) spaces of aggregation and information exchange, with impacts on customers' purchasing activities. In the UGC framework online contents become valuable resources a firm can be interested in, with customers/users as content sources as well as users' evaluators of others' contents. Many firms are now starting to involve customers in such content provision.

3. Value creation and interaction processes in web 2.0 environments

Web 2.0 technologies have become an interesting set of instruments for marketers because of the acceleration they impressed to dynamics and processes, which have been recognized in consumption practices in the last twenty years. An extended literature in marketing and consumer research has in fact emphasized the active role of consumers in contemporary markets and the increasingly symbolic and communicative nature of consumption practices. A brief synthesis of these emerging logics and perspectives in marketing helps in framing the conceptual structure of web 2.0.

Marketing practices and strategies have significantly evolved towards what has been defined as a new *dominant logic* (Vargo, Lusch, 2004). According to this perspective the traditional view of marketing as a set of activities aimed at promoting and selling goods whose value is attributed mainly to their functional and technical features and characteristics can be misleading in the current competitive scenario. It has been noted that when on the

market, consumers do not actually search only for functions and technical features of products. On the contrary, when considering the acquisition of a specific good, consumers are often looking for a wider set of attributes and elements, such as specialized knowledge (incorporated in the product by the producer), symbols (such as values, meanings and ideas), and opportunities to connect with peers sharing their beliefs, identities and values (Cova, 1997; Muniz, O'Guinn, 2001a).

Within such a framework marketing communication has witnessed a substantial change. In a number of markets for consumer goods, especially fashion, consumer electronics, furniture, cars and many others, it shifted away from communicating products and offerings in order to provide consumers with complex discourses centered on the values and identities synthesized by brands and associated to specific consumption practices. As a number of studies put it (Semprini, 1996; Fabris, 2003; Fabris, 2008; Codeluppi, 2002) marketing communication shifted from being the explication of products' and firms' specificities to become a discourse on values, meanings and identities. Brands in particular have been considered from this standpoint fundamental elements in creating and sustaining relationships among consumers and between consumers and firms. The engagement of consumers with specific brands depends on the correspondence between the discourse developed by firms and the overall identities and cultures that characterize specific groups of consumers (Di Maria, Finotto, 2008; Schau, et al., 2009; Simmons, 2008; Veloutsou, Moutinho, 2009).

The driver of such a change is to be found on the central role of consumption practices in forging and constructing individuals' identities. As the post-modern marketing and consumer research literature has clearly stated, consumers are «on a never-ending quest; a quest to define the meaning of their lives. Consumers go to markets to produce their identity – specifically their self-images» (Cova, Dalli, 2009, p. 316).

What characterizes contemporary markets for consumer goods is that consumers are not only looking to producers in order to obtain symbols, products and meanings to construct their identities. On the contrary, they are producing identities from the bottom-up, re-defining, re-interpreting and imbuing with novel meaning existing symbols and commercially produced cultures as well as creating their own ones (Holt, 2002; Cova, Dalli, 2009; Veloutsou, Moutinho, 2009). Consumers are actually active contributors to the creation of intangible elements (Merz, et al., 2009; Holt, 2003; Cova, Dalli, 2009): on the one hand consumers are sources of knowledge that reveals to be useful in improving products and processes (Franke, Shah, 2003; Von Hippel, 2005); on the other hand they actively contribute to the creation of

cultures, identities and values that enrich brand images and meanings (Aaker, Joachimsthaler, 2000; Strannegard, Morling, 2004; Muniz, O'Guinn, 2001).

Concepts of consumer power or empowerment (Waite et al., 2006) are not completely new in the marketing debate (Firat, Schultz, 1997; Firat, Venkatesh, 1993). Nonetheless the Internet has increased the scale and scope of consumer-to-consumer relationships, and has provided the outcomes of their relationships – knowledge, innovation, cultures and symbols – with an unprecedented visibility.

Web 2.0 technologies and applications, with their ease of use and relatively low barriers to experimentation and entry, have contributed substantially to shift the locus of value generation from firms to consumption and have accelerated the creation of symbols, cultures and meanings by consumers for three reasons:

- First of all web 2.0 services and applications have largely diminished the information asymmetries between production and consumption. Applications such as search engines – both general such as Google and dedicated to customers' reviews and evaluations – have multiplied the sources of information related to products and firms' offerings. Specialized blogs, reviews and comments on major e-commerce outlets such as Amazon, the proliferation of independent portals and services dedicated to confronting alternative offerings enable consumers to collect a vast amount of information that is used in their deliberative processes (Harrison, et al., 2006);
- Secondly, within the spaces of web 2.0 consumers are increasingly able to actively oppose – and sometimes boycott – firms and their communication. The ease of creating, distributing and publishing content on the Internet, and the potential audience web 2.0 expose to, have ignited visible anti-brand dynamics and have critically brought complaints and perceived negative conduct at the attention of marketers and managers worldwide (Holt, 2003b) (Krishnamurthy, Kucuk, 2009);
- Thirdly, and more importantly, web 2.0 instruments and the reduction of barriers to entry in the communication landscape have allowed consumers to re-define, enrich and sometimes subvert corporate communication (Muniz, O'Guinn, 2001; Schau, et al., 2009).

The challenge for firms, thus, is twofold. On the one hand they are engaged by consumers, which require them not only to promote a product or service, but rather to create complex discourses, experiences and to contribute to emerging cultures of consumption. On the other hand, the creation of such symbolic constructions is not controlled entirely by companies: in

their relationships within interactive spaces consumers are actively contributing to the creation, modification and re-distribution of brand-related content.

Web 2.0 instruments such as blogs, social networks and repositories of user-generated content are used by consumers as tools to freely and creatively express their identities, values and meanings. Within these spaces consumers are tapping from autonomously produced content as well as from content produced and distributed by others consumers and firms to create narratives of themselves and of their adhesion to specific cultures and social groups (Cova, Dalli, 2009; Han, 2010; Kozinets et al., 2010).

Within the environment of web 2.0 consumers collect information, symbols and ideas that they put together in order to construct a coherent and visible identity that they aim to communicate. Products and brands, in this sense, are some of the elements used by the consumer that acts like a *bricoleur* (Fabris, 2003, 2008). The boundary between the commercial and cultural dimension of marketing communication blurs increasingly since consumers, which are aware of the commercial objectives of marketing communication, re-interpret it in order to make it part of their life and coherent with their identity and image of the self (Arnould, 2007; Cova, Dalli, 2009). Consumers' research for meaning drives them to contextualize commercial communication within complex symbolic constructions that assume the form of narratives, interpretive frameworks that allow them to make sense of the environment and to place themselves in it with a specific role and identity.

Such narratives are not controllable by companies. Firms, on their side, are producers of the basic elements of the construction of consumer narratives and identities. Products, brands, commercial messages, all the visible manifestation of a firm or of its products are signs appropriated by consumers who transform commercial communication into cultural stories (Kozinets et al., 2010) which are relevant to the individual, in that they allow her to express her identity.

4. The study: web 2.0 in firms specializing in the furniture industry – an analysis

As described in the literature review, there are interesting potentialities for firms – especially small and medium-size enterprises (SMEs) – in adopting web 2.0 tools to richly interact with their customers. However, there is a lack of extensive empirical studies describing how firms really refer to those new tools in their marketing strategies and communication processes.

To our knowledge the vast majority of the studies that addressed the maturity and the impacts of the adoption of web 2.0 technologies in small and medium sized enterprises have adopted a qualitative methodology, often preferring a focus on specific web 2.0 applications and services (e.g. either social networks or repositories for user-generated contents) to observe their contribution to specific marketing activities (e.g. either branding or customer service and the like, cf. Bernoff, Li, 2008).

Extant literature has not tried, yet, to provide with an extensive analysis of the adoption of the entire set of social media and web 2.0 applications (social networks and user-generated content repositories and blog and the like) in order to assess (1) whether there is a specific instrument that is being adopted more than others and (2) whether there are different levels of adoption models, more or less mature and comprehensive.

Our study aims at providing with such an analysis, considering a sample of firms in the furniture industry and trying to assess the number of web 2.0 applications and services adopted by different firms. While still exploratory, the study aims at sketching potential adoption models and to highlight the current status of the adoption of these instruments on a quantitatively significant sample. We aim at providing this picture considering one industry rather than a number of sectors. While the results can be biased in that some industry-dependent variables can intervene, we opted for an industry-specific analysis to obtain a clearer picture that can be confirmed or disconfirmed by other studies concentrating on different industries.

Our study aims at closing a gap we identified in the literature. While the literature reviewed in section 2 and 3 provides with preliminary considerations related to the impacts of web 2.0 adoption in case-base studies, we believe that such an assessment should be first based on a recognition of the diffusion of web 2.0 technologies in a larger sample. Such an analysis could provide a better ground for extensive qualitative analyses aimed at singling out causal relations between web 2.0 and specific marketing performances. As it is the case, still a small number of firms have adopted these instruments, at least in our sample. This suggests that the obstacles to their adoption should be taken into consideration before trying to generalize the evidence resulting from case studies that can be considered outliers (and whose performance can be influenced by intervening variables that are not taken into account at present).

Our goal is to provide with a comprehensive view of the diffusion of web 2.0 instruments among firms in a specific industry – in particular furniture – in order to ground the theoretical orientations developed recently on the marketing potential of web 2.0 with considerations

regarding their actual adoption. The analysis developed in this article aims at providing a measurement as much exhaustive as possible of how firms (and in particular SMEs) approach web 2.0. Specifically our aim was an examination of the actual presence and activity of firms in web 2.0 spaces and an analysis of the eventual integration of firm's presence in the web 2.0 environment with more traditional forms of online presence (such as websites).

Beyond measuring the distance – or lack thereof – between firms and web 2.0 instruments, we aimed at understanding the specific uses of web 2.0 applications and services by firms in the furniture industry as well as the maturity of their use of more traditional web instruments (websites and e-commerce applications). We selected the furniture industry because it is a mature industry characterizing by a large presence of SMEs and where the role of intangibles elements distinguishing the product (such as the brand or the design) asks for innovative communication approaches that support differentiation strategies.

As far as the web 2.0 applications are concerned, the selection of the instruments and services to be considered has been determined by two types of considerations. First of all the number of so-called web 2.0 applications and services is large and growing, and a focus on a sub-set of them is required. In selecting this subset, we opted for the relevance of the application in terms of numbers of subscribers and their current leadership in terms of global reach and subscriptions. That is the reason behind the option for widespread applications and services such as Facebook, Twitter, Youtube and Vimeo with detriment to others, whose popularity and diffusion are limited. Secondly, we specifically opted for “consumer” applications with detriment to professional networks and services (e.g. LinkedIn), in order to focus on how firms are using these services to get in contact with a larger public rather than with specific audiences composed by experts and professionals.

Methodology

Being the study exploratory and given the absence of already existing assessments and methodologies at the industry level, we opted for a research design aimed at providing a detailed set of data related to the presence of firms in social media and to their use of web 2.0 applications and services.

Our goal is to provide a sound basis for qualitative as well as quantitative in-depth studies aiming to assess the causal relationships among adoption of web 2.0 technologies and marketing performance. This basis consists of a preliminary analysis of the level and maturity of web 2.0 adoption in order to highlight potential obstacles to the adoption of web 2.0

applications that should be taken into consideration and to verify whether there are different “models” of web 2.0 adoption.

In order to do so, we opted for an industry-specific analysis. The sample of the study is represented by all the firms that participated in the 2010 edition of the International Furniture Fair (Salone del Mobile) in Milan, one of the most important promotional industry events at the global level for the furniture industry and it is defined as “the global benchmark of the Home Furnishing sector” by Cosmit, the Italian organization managing the Fair. The total number of firms considered is 1,225 and 79% of them are Italian firms. The firms observed are SMEs, in fact the median turnover is 4.3 Million Euro, while the median number of employees is 25.

The assessment of the online presence and of the adoption of web 2.0 applications has been made through a desk research. In particular, we analyzed – according to the observed analytic framework explicated in tables 1 and 2 – companies’ websites and their presence (with both official and unofficial channels) in the major web 2.0 applications. The analysis of both, companies’ websites and their presence in web 2.0 channels and websites has aimed at investigating whether there are explicit connections among the two and whether there are specific integration models.

We developed a specific methodology in order to analyze the use of web 2.0 and web tools in the firms considered. The analysis has been structured as a two-step desk analysis, in particular:

1. Analysis of firm’s websites;
2. Analysis of firm’s forms of adoption/use of web 2.0 tools, spaces and services.

The investigation has been articulated as follows:

1. Identification of the firms’ websites and analysis according to the variables explicated in tab. 1
2. Research of official brand and firms’ channels as well as unofficial contents (cf. produced by third parties such as consumers) within the select social media applications explicated in tab. 2. Channels and contents have been analyzed using the analytic framework synthesized in tab. 2;
3. Research and analysis of official corporate blogs.

To identify official firm’s presences in spaces such as Facebook, Youtube, Twitter and the like – that it explicit, dedicated web-based firm’s strategy - we used both explicit links in

firms' websites as well as queries both in Google and in the dedicated search engines of each of the web 2.0 services we analyzed. Table 1 synthesizes the variables and criteria that were used to assess the type of presence and the relative maturity of "traditional" web presences, in particular the structure of the website. As far as web 2.0 is concerned, we consider four web 2.0 spaces and services: Youtube, Vimeo, Facebook, and Twitter. Table 2 describes the variables selected and measures used for the analysis. The data collection has been carried out during the period May-October 2010. The result section is split into two parts. In the first one we present the characteristics of firms websites, in the second their use of Web 2.0 applications.

As far as web 2.0 services and applications are concerned, we analyzed whether the companies have:

1. a profile in websites and applications such as Facebook and Twitter (social networks), Youtube and Vimeo (user-generated repositories);
2. an official corporate blog.

As stated earlier such a selection of observed applications and services is to some extent arbitrary but responds to the need of considering significant services and applications in terms of subscribers and diffusion.

Tab. 1: Variables for the assessment of firms' websites

Website characteristics and services	Variables and measures
Pagerank	Assessment of the visibility/connectivity of the website Assessment of its positioning according to Google
Internal search engine	Presence (dummy variable: 1: yes; 0: no)
Product catalogue	Presence (dummy variable: 1: yes; 0: no)
Product descriptions	Presence (dummy variable: 1: yes; 0: no)
Newsletter	Presence (dummy variable: 1: yes; 0: no)
Web 2.0 integration	Presence of explicit links to official channels (dummy variable: 1: yes; 0: no)
E-Commerce	Presence of e-commerce services (dummy variable: 1: yes; 0: no) Presence of e-commerce services on dedicated industry portals (dummy variable: 1: yes; 0: no)

The analysis of the website has aimed to assess the degree of connection (and hence the integration of the website with other relevant websites) of the firms' websites using a synthetic variable, namely Google Pagerank. The value Google assigns to websites reflects both the number of incoming links and the authority of the incoming links, thus providing a

synthetic assessment of the centrality or peripheral position of the website in the larger ecosystem of the internet. The other variables taken into account (internal search engine, product catalogue and descriptions, newsletter) aim at assessing synthetically both the degree of completeness of contents provided to the user/consumer, as well as the existence of two-way communication flows. E-commerce features were analyzed in order to assess the degree to which firms are using the web as a communication and interaction environment or, on the contrary, also as a business and sale environment. Finally, we searched for the explicit and official presence of links to the spaces managed by firms in the web 2.0 in order to assess, although preliminarily, the integration of web marketing tools in the select firms' strategies.

Tab. 2: web 2.0 applications and analytical criteria

Variables	Measures
Official presence	account, official channel, group, page
Non-official presence	pages and/or groups created by users with no official endorsement by the firm
Updating frequency	n. of items per month in the last three months (January-February-March)
Content typologies	original/syndicated from other sites; promotional/editorial; type of media – audio, video, image, text
Languages	Number and type of languages used
Contacts	Numbers and type (subscribers/friends/followers)
Users' participation	Numbers of users' comments on each channel

As far as web 2.0 applications are concerned, we first of all aimed at understanding whether firms were present as the result of a deliberate choice of its management (in the case of official channels) or, on the contrary, if their presence was maintained and created by third parties through user-generated contents and channels. Beyond presence, we aimed at obtaining a measure of the degree of involvement of firms in communication through web 2.0 applications. In particular, we analyzed the post frequencies in a selected three-month time span. In terms of the types of content, we aimed at understanding whether firms were producing contents that are platform-specific (e.g. different contents for websites, social network and repositories) or whether they were syndicating the same contents across the different platforms and services. The objective of this assessment is to verify whether and to what degree firms are developing specific strategies and actions for different media or, on the contrary, they are producing the same contents regardless of the specificities of each channel. In order to assess the popularity of the firms presences on social media outlets we used the

number of contacts, fans and/or likes. We also wanted to measure the degree of interactivity of the user-base, through a calculation of the average number of comments in the select time span. This measure allows to assess whether the presence on specific web 2.0 channels has proved effective in engaging consumers in conversations related to the firms and its products or brands or not. Finally, the languages of posts was considered as an indicator of the willingness of firms to use these instruments as a direct and not expensive way to open relations beyond domestic boundaries or on the contrary if firms were tackling the domestic user-base of selected channels and media.

Results

Websites are a widespread feature among the considered sample (see Tab. 3): only 2% of the firms of the sample do not have a website. Although its diffusion, websites are used mainly as a publishing system. 94.2% of the firms put their catalogue online with basic information about the product, while a more limited portion, 62.8%, published more detailed information (product descriptions) that are important in relation to the particular nature of the product. In fact, information about measures, colors and style (and other possible variants) of the product are essential in the furniture industry, especially for the consumer who wants to know if that product fits (practically and aesthetically) her house. In terms of interaction, 63% of the firms put their email address in the website, 17% have a newsletter, 9.1 have integrated the websites with Web 2.0 solution. E-commerce is seldom used: only 3% of the firms sell online. This is not a surprising result in relation to the specific features of the industry and to the product that requires high customization and *ad hoc* logistics and assembles. Only large retailers (like Ikea) are recently investing in this technology, especially for standardized product.

Tab. 3: analysis of websites

Firms with websites	98%
PageRank (mean)	2.54
Websites with Internal Search Engine	13.2%
Websites with Product Catalogue	94.2%
Websites with Product Descriptions	62.8%
Websites offering Newsletter services	17.0%
E-mail	63.0%
Web 2.0 integration	9.1%
E-commerce	3.0%

Tab. 4: websites' languages

Italian	23.4%
English	17.2%
Italian and English	53.5%
Other languages	6.0%

In terms of the popularity of the websites, we used pagerank as a measure of the relevance and authority. Although we are aware of the imperfections and limitations of this indicator, it is interesting to notice that on average the pagerank is 2.54 - with a maximum number of 6 out of 10. Therefore, we observe that the popularity of websites is rather low and diffusion of website is not widespread being limited to specific market niches. Usually information are published both in Italian and English (53.5%) in order to reach a global audience (see Tab 4). 23.4% of the firms have a website only in Italian while 17.2% have only in English. A limited percentage of the firms (3%) has invested in other languages in order to explore new markets, especially emerging ones (Brazil, China, Russia, etc.).

Websites are mainly used as static repository of standard information with a limited attention to interaction. Websites are in fact used to show the product catalogue offering customers the opportunity to see the range of products provided. However, not all firms use the website to deeply provide products' information while the use of web-based configuration tools is limited. From this perspective, in the furniture industry, websites can be seen more as an online business card than a place where firms and consumers exchange personalized information. This is confirmed also by the large use of Flash for the development of the Website that is intended to put more emphasis on *good looking* of the website. Aesthetics is definitely privileged than the quality of information and the interaction with the users. The website is more a digital extension of the brochure than a platform for new forms of interaction with the customer.

As far as the Web 2.0 is concerned (see tab. 5), the results outline a limited use of social media. In particular, Facebook is the most used application (10.4 % of our sample) followed by Youtube (5.9%), Twitter (3.8%), and Vimeo (0.7). Blog, one of the oldest social technologies, has been adopted by 2.4% of the firms. Although Facebook is the most diffused Web 2.0 application, it is interesting to underline that there is a huge difference in the way firms use this technology in terms of updating frequency and typologies of contents produced. 31% of the firms that have a Facebook account did not publish anything, while 25% of firms publish intensively (more than 6 posts per month). From this point of view, the mean of 14.4 of published posts in three months is not indicative of the intensity of use of Facebook because of the high variance within the sample. The fact that an important quota of the firms

did not publish yet is in relation with the specific architecture of Facebook. In order to understand how Facebook works and what kind of discussions are taking place among users, one has to subscribe (create an account) and to become a user. In this perspective, those firms are “studying” and learning how Facebook is and how they could benefit from this environment. Probably not all the firms which are experiencing Facebook for the first time will continue to use it in the future but this is part of a learning curve for get acquainted with this technology.

Concerning the typology of the contents published, 51.7 % of the firms developed a combination of both promotional and editorial information. Facebook is a place to talk about the product and, at a same time, to discuss about more general issues such as art, design and aesthetics. Interaction in Facebook is the result of a mix of commercial and non-commercial contents. Some contents are created *ad hoc* by the firms for Facebook (29.3), while others are based on an automatic system – called syndication – where information are repeated from external resources that could be other Web 2.0 platform (i.e Twitter) or other websites.