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Preconditions for the diffusion of prosumption among firms: a case study approach

Abstract

Prosumption refers to the firms' tendency to allow their customers to participate in co-production and value co-creation processes. Based on a case study approach, this article proposes a set of four preconditions that firms should meet to succeed in adopting *prosumption* as a new marketing approach. These relate to: (1) the exploitation of a customer knowledge base that firms may accumulate through proper tools and techniques, (2) the creation of environments facilitating customer-firm interaction, (3) the persuasion of customers to accept and share firm values, and (4) the implementation of specific customer-centered marketing strategies. A content analysis was carried out on the corporate websites of five illustrative case studies. Results showed that firms adopting *prosumption*-based marketing strategies meet the four above-mentioned conditions. Theoretical and marketing implications are discussed.

Keywords: co-production, customer, marketing approach, prosumption, value co-creation. **JEL Classification:** M10, M11, M31.

Introduction

Marketing is changing as its basic principles are more and more challenged by researchers developing new approaches. This also emerges from a recent value-centered formal re-definition of marketing approved by the American Marketing Association (AMA): "Marketing is the activity, set of institutions, and processes for creating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large" (AMA, October 2007). With this re-definition, firm counterparts and customers in particular acquire a special importance, which is more and more recognized in theory and practice. New paradigms and approaches acknowledging the central role of customers are continuously advanced in the literature. Based on the so-called postmodernism's philosophy (cf. O'Shaugnessy and O'Shaugnessy, 2002, for a review), Guido (2005) proposed an inductional marketing approach in which the final goal of firms should be to persuade their counterparts (including customers) to collaborate with them. These subjects should therefore be induced to contribute to the value creation chain through a positive predisposition toward firm offers and their consumption. This also relates to the "Consumers as products" approach developed by Varaldo and Guido (1997). This approach suggests that the final goal of firms should not be to market their offers (products and integrated services; Guido, 1999, for a discussion), but to "produce" satisfied customers, by influencing their expectancies (i.e., expectation and desires) and perceptions, in order to increase their satisfaction levels.

Consistent with this customer-centered view of marketing, researchers have recently proposed other

similar approaches. Vargo and Lusch (2004, 2008) introduced a conceptual model to explain a shift in marketing theory from a goods-centered dominant logic, where customers are mere recipients of goods, to a service-centered dominant logic, where customers are viewed as co-producers that actively participate with firms in value creation.

These theories and conceptual models based on the post-modernism's philosophy suggest a crucial change in the conception of the value creation chain. Firms have been considered for decades to be the only creator of value. At the same time, customers have been deemed to act as mere value destroyers, through consumption (cf. Porter, 1990). In contrast with such a view, the *post-modernism*'s philosophy suggests that customers are co-creators of value to the extent that they interact with firms in production and value creation (cf. Payne, Storbacka and Frow, 2008; Wikström, 1996). This article illustrates prosumption - i.e., a way to combine production and consumption – and discusses specific preconditions for its diffusion as a new marketing approach. The next section will describe this approach as one that formally integrates the customer in the production process. The second section will discuss four preconditions that could help firms adopt prosumption successfully. The third section will illustrate five case studies regarding five firms that meet the proposed preconditions. The last section concludes this article with a discussion of theoretical and operational implications.

1. *Prosumption*: integrating consumption in production

Prosumption is a relatively new concept that was introduced by Toffler (1980), who merged the terms of "*pro*duction" and "con*sumption*" to indicate the tendency of these two aspects of an economic system to converge toward a unique value creation process. According to this concept, consumers co-

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operate with firms to "produce" value through their experiences and by attributing symbolic meanings to consumption. Prosumption has been related to a need for consumers to *customize* offerings and is emerging as a marketing approach. In such an approach, customers are allowed to collaborate with firms in manufacturing activities and service delivery, so that they may construct their consumption experiences and create value with firms (Prahalad and Ramaswamy, 2004). Based on a psychological approach, Xie, Bagozzi and Troye (2008) deemed prosumption to be a subjective trying process, that is, as a behavior whose potential consequences are not under prosumers' volitional control, as these outcomes can be subjected to external and internal impediments. They therefore defined prosumption as the set of value creation activities consumers perform in order to contribute to the production of products and services they eventually consume.

Prosumption has been considered as an approach with potential economic advantages for both firms and customers (Fitzsimmons, 1985; Lovelock and Young, 1979). Firms adopting prosumption may benefit from a labor cost reduction, as customer participation in co-production (e.g., in product assembly) reduces the number of employees needed to realize and market their offers. Consumers, on the other hand, may benefit from prosumption, as labor cost saving enables firms to offer their products and services at lower price levels. In a recent study, Bendapudi and Leone (2003) have shown that customer participation in co-production also has psychological consequences for consumers. They tested the impact of prosumption on customer satisfaction and found an effect of customer participation in coproduction on evaluation and judgement. This effect was found to be consistent with the so-called selfserving bias, that is, one's tendency to ascribe merits to him/herself, in case of success, and responsibility to the partner (e.g., the firm), in case of failure. These results led the two authors to conclude that firms should adopt prosumption carefully, even if they also found that this bias is mitigated when customer participation is volitional.

By adopting a customer perspective, Etgar (2008) proposed a conceptual model in which *prosumption* is deemed to be a dynamic, five-stage process. The first phase is the *development of antecedent conditions*, which are specific to the macro-environment, the customer, the product, and the situation characterizing the contextual interaction between a firm and its customers. The second phase regards the *development of motivational forces*, as personal goals that encourage a customer to participate in value creation. These may be economic drivers (such as cost reduction), psychological motivations (such as personal values and desires), and social

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benefits associated with interaction. The third phase deals with a cost-benefit analysis that customers would perform before deciding to prosume. The fourth phase regards activation, which refers to the level of the value creation chain at which customers choose (or are allowed) to collaborate with firms, thus becoming prosumers. Customers may participate in several phases of production and value creation process. They may intervene in: product initiation and design, through a participation as informants for customizing a product or a service (e.g., Citibank in the financial service market); manufacturing or production in a strict sense, through the construction of "virtual" products in specialized blogs or websites (e.g., Audi in the automotive industry and Dell in the hardware industry); assembly, logistics and distribution, through a participation as self-assemblers of single pieces of a product and self-deliverers (e.g., Ikea in the furniture market); and consumption, through a participation as cocreator of symbolic meanings and experiences (Payne, Storbacka and Frow, 2008; Wikström, 1996). The fifth phase regards evaluation, which refers to the prosumers' satisfaction judgments based on a comparison between what these subjects have perceived to receive from their participation activity and their motivating goals as set up in the second phase of the process.

Unlike Etgar's (2008) model, in this article *pro*sumption is examined from a firm perspective. It must be noted however that the approach adopted in this work does not contrast with Etgar's (2008), but it tries to integrate his basic model with a separate set of conditions that firms should realize and implement in their business models, in order to encourage their customers to collaborate in value creation by participating in *prosumption* activities.

2. Preconditions for the diffusion of *prosumption*

This article aims to illustrate a set of preconditions that can help prosumption emerge as a new marketing approach and spread among firms. The set of conditions that will be discussed below is more parsimonious and manageable than that proposed by Etgar (2008), which is in most part out of firms' control (such as in the case of macro-economic conditions). It is argued that the implementation of the proposed preconditions helps firms successfully adopt prosumption as a marketing approach. According to our model, for customers to be profitably involved in value co-creation activities as prosumers, firms should meet four specific conditions that can be summarized as follows: (1) Exploiting a customer knowledge base, which refers to the extent that firms implement specific tools and techniques for gathering and managing information from customers; (2) Creating environments that facilitate *customer-firm interaction*, which deals with the development of those structures, such as blogs and websites, that favor relationships between firms and their customers; (3) *Encouraging firm value sharing*, regarding the adoption of specific tools and techniques, such as an ethical code, capable of persuading customers to accept firms' principles; (4) *Developing customer-centered marketing strategies*, such as real-time marketing and experiential marketing, which should encourage customers to engage in *prosumistic* relationships to firms.

2.1. Precondition №1: Exploiting customer knowledge. A first condition for *prosumption* to emerge as a marketing approach is that firms implement techniques for gathering and managing information from customers. Adopting these techniques helps firms create a base of customer knowledge and competences that they could profitably use in all phases of innovation and new product development processes (cf. Fang, 2008): (1) *Idea generation*, (2) *Idea selection*, (3) *Product development*, (4) *Product testing*, and (5) *Product launch*.

Reference has often been made to the Internet as a platform that may play a crucial role in favoring information exchanges with customers on an interactive basis (Prandelli, Verona and Raccagni, 2003; Sawhney and Prandelli, 2000; Sawhney, Verona and Prandelli, 2005). In the *Idea generation* phase, Internet-based techniques that could help firms store and use customer knowledge are: online interviews or structured questionnaires, designed to collect new ideas from consumers through specific surveys (e.g., web surveys, pop-up surveys, banner surveys); box suggestions, which offer the possibility for customers to propose innovative ideas and opinions; complaint areas, which are specific web pages or boxes through which customers may send complaining messages to firms; and listening activities, which consist in recording all contents of interactions between customers and firm experts (Urban and Hauser, 2004). Idea selection aims at examining the compatibility of ideas generated in the previous phase with internal resources and objectives. Potential techniques to encourage customer-firm interaction are: virtual concept testing, which allows consumers to compare different product concepts and evaluate their characteristics; and online focus groups, which consist in electronic discussion forums where consumers are allowed to interact with each other and discuss specific offers (Paustian, 2001). Once an idea has been selected, Product development consists in a complex set of design, engineering and assembly activities leading to the creation of a product prototype. Customers could be involved in this phase through two specific webbased applications such as: conjoint techniques (e.g., adaptive conjoint analysis; cf. Green, Krieger and Agarwal, 1991), which allow firms to design their offers around consumers' preferences; and user design, which is a form of product customization that allows potential users to specify product attributes (Randall, Terwiesch and Ulrich, 2005). In the Product testing phase, customers may be involved in virtual product tests, where potential users are allowed to evaluate specific product features combined in a web environment; and market tests, where potential users are invited to participate in simulated market situations (cf. Dahan and Srinivasan, 2000). Specific Internet-based techniques may be used by firms to favor prosumption during Prod*uct launch*, the last phase of this process. These techniques relate to collaborative and viral marketing tactics according to which key customers (e.g., lead users) collaborate with firms in promoting specific offers within their social networks, through an electronic word-of-mouth (Hung and Li, 2007; Riegner, 2007).

2.2. Precondition №2: Creating environments facilitating customer-firm interaction. The second precondition is the creation of specific environments that favor collaborative relationships between firms and their customers. Internet and networking technologies may be extraordinary tools that could facilitate the creation of virtual environments, where customers can co-operate with firms in product development and value creation activities. A crucial role in stimulating a constructive interaction between firms and their customers may be played by corporate websites. These should integrate in their architectures specific spaces (e.g., web pages) where customers are allowed to communicate with each other, firm experts and *infomediaries*, that is, specialized third parties that mediate information exchanges on the Internet (Guido, Peluso and Rizzato, 2005).

A special tool that can serve this function is *virtual community* (Hagel and Armstrong, 1997). *Virtual communities* are "social worlds" where individuals interact with each other, by exchanging ideas and opinions on a specific subject (Brown and Duguid, 2000). It is important to note that, for a virtual community to exist, three conditions must be met (Mandelli and Vescovi, 2003): (1) members should share interests and values and actively participate in virtual social interactions; (2) these interactions should be held regularly; (3) a sense of belonging should be felt by members, who should pursue a common goal rather than strive for individual objectives.

2.3. Precondition N23: Encouraging firm value sharing. The third precondition for *prosumption* to spread in business contexts is that firms should strive to communicate their ethical principles in a persuasive way that encourages customers' accep-

tance of such values. By sharing firms' values, customers are more likely to identify with companies and become their champions and promoters, thus engaging in positive word-of-mouth (Bhattacharya and Sen, 2003). This implies that customers are encouraged to take part in firms' activities, by playing a role in innovation and production processes, participating in the definition of quality standards, and co-determining price levels, in accordance with an open source logic. Consistent with this logic, knowledge and innovation are not necessarily developed by firms, but with the key support of user communities (Von Hippel, 2001).

To facilitate interactions with customers in innovation processes, such as in new product development, firms should communicate their own values through corporate ethical codes. These are written documents through which firms state their philosophical principles and illustrate embraced values (Stevens, 2008). Ethical codes may be a valid instrument for firms to encourage customers and stakeholders in general to share their own values and accept their strategy and culture, thus favoring cohesion among involved parties (such as organization members, customers, investors and so on).

2.4. Precondition №4: Developing customercentered marketing strategies. The fourth precondition relates to the adoption of customer-centered marketing strategies. Firms should develop specific marketing strategies that recognize the central role of customers in the value creation chain. These strategies might be based on approaches recently proposed in the marketing literature such as: (1) reverse marketing, (2) interactive personalization marketing, (3) experiential marketing, (4) permission marketing, and (5) real-time marketing.

Reverse marketing was introduced by Leenders and Blenkhorn (1988) and refers to an approach in which customers (and not firms) take a marketing perspective in persuading their counterparts (e.g., companies) to provide suitable solutions to their problems: "give me what I want" (Plank and Francis, 2001, p. 76). Decisional power is therefore transferred to customers who, as "product engineers", are actively involved in product design, pricing and communication strategies. Interactive personalization marketing is an approach in which firms should exploit Internet-based technologies to enhance interaction with customers, understand their preferences, expectancies and desires, and use such information in customer profiling activities that help firms customize products and consumption experiences (Miceli, Ricotta and Costabile, 2007). Experiential marketing, as introduced by Schmitt (2003), is an approach according to which firms' efforts should be devoted not to products themselves, but to offering complex experiences that users may perceive in a multitude of ways. These include: consumers' senses (i.e., sensorial experiences), emotional systems (i.e., feeling experiences), cognitions (i.e., thinking experiences), actions (i.e., acting experiences), and social networks (i.e., relational experiences). Permission marketing was introduced by Godin (1999) as an approach to direct marketing. It posits that firms should seek permission in advance from consumers to send ad messages and other marketing communications. In this way, firms are more likely to obtain trust from their counterparts, undertake a profitable and enduring dialogue with these subjects, who are therefore more likely to become loyal customers. Finally, real-time marketing is an approach in which firms try to offer customized products which are also capable of evolving over time for meeting changing customers' needs and wants (Oliver, Rust and Varki, 1998).

3. The adoption of *prosumption* in firms

The four situations illustrated above have been proposed as key preconditions for *prosumption* to diffuse as a new marketing approach among firms. By adopting a case study approach, this section focuses on five illustrative examples of firms in which *prosumption* has been successfully adopted by meeting these preconditions.

Firms adopting this marketing approach have been identified by following a qualitative procedure. First of all, recent studies on prosumption were reviewed to find specific references to firms adopting prosumptionbased strategies. These include: Procter & Gamble (Blazevic and Lievens, 2008), Dell Computer, Wikipedia (Etgar, 2008; Fang, 2008), Audi (Johann and Kurt, 2007), BMW's Mini, Citibank, Mercedes-Benz, Rolls-Royce Aerospace, You-Tube (Payne, Storbacka and Frow, 2008), Ducati Motor, Eli Lilly (Sawhney, Verona and Prandelli, 2005), Ikea, Nestlé, The Laundry (Wikström, 1996). Additional firms adopting prosumption were identified by searching on the Internet and examining corporate website contents. Selected firms include: Amazon, which is the biggest virtual store worldwide; Apple Computer, which is a globalized company operating in the software and hardware markets; Nike, a globalized company operating in the sportswear market; Pastificio Rana, a leading firm in the European fresh pasta market; and Vodafone Group, the world's largest telecommunications company. Table 1 provides information on nine illustrative examples extracted from this sample of nineteen firms. Descriptions regard strategies that these firms implement to involve their customers in value creation. Five specific firms were considered as illustrative case studies: Amazon, Apple Computer, Diesel, Procter & Gamble, Vodafone. These will be described in the following boxes.

Table 1. Illustrative examples of firms adopting prosumption

Company (Corporate website)	Brief description of the strategy	
Amazon (www.amazon.com)	Customers are allowed to share their evaluations of consumption experiences through an online recommendation system	
Apple Computer (www.apple.com)	Customers are allowed to discuss and provide evaluations and suggestions about both established and new products	
Audi (www.audi.com)	Customers are allowed to build their own Audi car on the corporate website by selecting preferred product features among a set of available options	
Diesel (www.diesel.com)	Customers are offered several interactive initiatives that help them personalize their consumption experiences	
Ikea (www.ikea.com)	Customers are allowed to assemble and deliver their products by themselves	
Nike (www.nike.com)	Customers are allowed to build their own shoes on a specific section of the corporate website	
Pastificio Rana (www.rana.it)	Customers are allowed to send online their own recipes for a possible consideration in new product development	
Procter & Gamble (www.pg.com)	Customers are allowed to select specific character- istics of certain products (e.g., coffee aroma)	
Vodafone (www.vodafone.com)	Customers are offered several interactive initiatives that help them personalize their consumption experiences and share opinions constructively	

Box №1. The case of Amazon

Amazon is the biggest virtual store worldwide which commercializes in 220 countries more than 19 million of different products, including books, CDs, DVDs, videogames, computers, electronic devices, and beauty care products. This firm adopts *prosumption*-based strategies and meets the proposed preconditions.

Precondition #1. Its customers are involved in product quality evaluations. They are allowed to judge their consumption experiences through a rating system and their evaluations are available to other consumers (cf. Guido, Peluso and Rizzato, 2005). Such a technique helps the firm accumulate a large base of consumer knowledge that might be profitably used subsequently, during the launch of new offers.

Precondition #2. Amazon has developed, in the corporate website, suitable virtual environments for facilitating customer-firm interaction. In particular, it has been created a virtual community where participants may discuss their choices and evaluate their consumption experiences. Discussions are moderated by experts, and opinion leaders often influence choices and buying behaviors of most participants. Such an environment may be stimulating for consumers who feel that Amazon success also depends on their participation.

Precondition #3. Amazon tries to share its own values with its customers. Such values are contained in a code of business conduct and ethics recently approved by the firm. This code contains guiding principles regarding specific legal issues. These include: conflict of interest, copywriting, discrimination and harassment, employment conditions, insider trading, as well as health and safety issues, pertaining employees' work conditions, and financial treatments reserved for specific targets of customers.

Precondition #4. Amazon systematically adopts a *permission marketing* approach. It sends e-mails to its customers containing ad and promotional messages (such as publishing news, links) only upon a previous authorization provided by customers themselves.

Box №2. The case of Apple Computer

Apple Computer is a multi-sector, multi-product company leading the evolution of hardware and software platforms and technologies, multimedia products, network systems, communication products, peripheral and services. It continuously tries to involve customers in value creation activities and meets the proposed *prosumption* preconditions.

Precondition #1. Its customers are involved in firm activities in different ways, thus allowing the firm to accumulate and use their knowledge and competences. Customers are involved in different phases of the innovation process, such as in: (*i*) new product development, where they are profitably involved in co-definition of product design and engineering characteristics; (*ii*) product development, where they are involved in specific virtual product tests; and (*iii*)

product launch, where lead users are involved in viral marketing campaigns, as champions of the firm, for promoting product characteristics.

Precondition #2. Apple Computer is characterized for encouraging the creation of environments suitable to interact with customers. Such environments have been developed not only in the corporate website, but also in other specialized websites, blogs and discussion forums, where users share opinions regarding the firm and its products.

Precondition #3. As a claim that usually accompanies Apple's ad messages, "Think Different" seems to summarize firm's philosophy, which is based on the hope for a positive change in humanity toward an increased freedom of decision and choice for humans. This basic value reflects in a product design relating to a different way of thinking, acting, and living informatics. Apple Computer tries to share these values with customers by targeting its offers toward creative individuals.

Precondition #4. Apple Computer adopts both an interactive personalization marketing and a real-time marketing approach. The former consists in allowing purchasers to dialogue constantly and actively with Apple's engineers and programmers, as well as with the community of software and hardware developers. This lets customers express their preferences and opinions. The second approach consists in allowing customers to dynamically personalize their purchased products in relation to their evolving needs and tastes.

Box №3. The case of Diesel

Diesel is one of the most popular fashion brands with a core business in the causal wearing and denim market. Its marketing strategies are based on *prosumption* and meet the proposed preconditions.

Precondition #1. Its customers are involved in firm activities and this allows Diesel to accumulate and exploit a large customer knowledge base. In idea generation, a firm's creative laboratory members (i.e., *Diesel Creative Team*) collect and examine informative data from consumers worldwide, in order to understand emerging trends and life styles. In the phase of product launch, the firm involves lead users (such as teenagers) in ad campaigns for brand identity building and promotional activities.

Precondition #2. Diesel encourages the creation of virtual environments that facilitate a constructive interaction with consumers and teenagers in particular. It also offers to its customers several interactive initiatives for personalizing their consumption experiences (see the Diesel website http://www.55dsl.com). "Diesel Support" in particular includes initiatives conceived by the firm to offer to young people an opportunity to realize themselves in artistic and creative works.

Precondition #3. Diesel tries to share its values with its customers, although it has not developed a specific ethical code yet. The firm bases its ad campaigns on a life style concept that emerges from its "Diesel Planet" website. In this way, the firm continuously stimulates customers to adopt a Diesel life style and therefore share its value system.

Precondition #4. Diesel adopts an experiential marketing approach. Its marketing communications involve customers in different ways, by providing them with sensorial and emotional experiences during interaction. For that reason, the firm devotes considerable efforts to making its physical stores as more appealing and attractive and its virtual environments as more interactive and emotionally involving as possible. It also organizes special events related to the launch of new fashion collections.

Box №4. The case of Procter & Gamble

Procter & Gamble (P&G) is a global company that operates in 180 countries and commercializes a large range of branded products in many different markets, including health care, snacks and coffee, cosmetics and detergents ones. P&G may be defined as a marketing company and, as such, it adopts *prosumption* intensively and meets all the proposed preconditions.

Precondition #1. Its customers are involved in firm activities. Their knowledge and competences are stored for possible exploitation by the firm through several tools. These include specific box suggestions and online interviews, which are aimed to generate and select new ideas (see the "Share Your Thoughts" Section in the corporate website). P&G adopts an open innovation strategy and seeks to encourage its customers and stakeholders in general to participate in the value creation chain and the innovation process in particular, by explicitly inviting these subjects to submit their innovations (see the "Submit Your Innovation" Section in the corporate website).

Precondition #2. P&G has developed in its corporate and other websites virtual environments that favor customer-firm interaction. In particular, the firm has invested a lot of resources in the creation of virtual communities and specific virtual environments where customers are allowed to personalize their products and consumption experiences. Precondition #3. P&G tries to share its values with customers. In its official documents (see the P&G 2008 Annual Report), it declares that its values are rooted in the principles of innovation in a broad sense (a statement of its CEO is "[P&G is] Designed to Innovate, and to Grow"), but also of personal integrity and respect for the individual. The firm also declares to be committed to sustainable development, by integrating economic progress, social development and environmental concerns.

Precondition #4. One of the main P&G claims is "The Customer Is Boss". This demonstrates how intensively this firm adopts customer-centered marketing strategies based on a blend of approaches. These include: a reverse marketing approach, to the extent that customers may be provided with products and services designed on their needs and wants; an interactive personalisation marketing approach, to the extent that customers are allowed to customize their products interactively; and a real-time marketing approach, to the extent that such products evolve over time in relation to users' needs and tastes.

Box №5. The case of Vodafone

Vodafone Group is the world's largest telecommunications company. It operates above all in Europe, the Middle East, Asia and the United States. Mobile services are its core business, although the company also holds interests in integrated mobile and PC communication services. Vodafone has only recently developed prosumption-based marketing strategies that meet the proposed preconditions

Precondition #1. Its customers are allowed to personalize their consumption experiences by buying specific online services. They also are involved in defining price plans by participating to specific web surveys that help the firm store a large base of customer knowledge for a possible use in new product development and innovation processes. Vodafone has recently launched "Betavine" - a virtual community that is still in its Beta version - to involve customers in service development and evaluation.

Precondition #2. Vodafone Lab, a specialized section of the company R&D organizational function, has developed specific virtual environments (such as Internet blogs and forums) where customers are allowed to interact with each other and firm experts. To facilitate these interactions and develop social networking activities in general, the company has also built a business partnership with well-known social networks such as Facebook.

Precondition #3. Vodafone explicitly communicates its ethical principles to its customers and stakeholders. It has adopted a code of ethics and conduct based on the key values of honesty and transparency. In its corporate website, the company states that it is involved in encouraging sustainability in doing business and promotes several initiatives for social and environmental purposes.

Precondition #4. For years, Vodafone's marketing strategies have been technology-driven. Yet the company has recently shifted its focus from providing technologically advanced products to offering personalized solutions to both consumers and business customers. This strategic re-orientation clearly emerges from its "Passion for Customers" statement reported in the corporate website. Today's marketing strategies are customer-centered and primarily based on reverse marketing and interactive personalization marketing, to the extent that offered services are designed around customers' wants and needs and users are allowed to customize firm's offers interactively.

Discussion and conclusions

Researchers and firms are witnessing a shift in marketing from treating customers as mere recipients of goods and services to considering them as a strategic resource that can be profitably employed in production, innovation, and value creation in general, for achieving an enduring competitive advantage. *Prosumption* is emerging as a new marketing approach that could help firms face the global competition characterizing today's turbulent marketplaces. From an economic point of view, this approach gives rise to a win-win situation where both firms and their customers obtain advantages in terms of labor costs' reductions and lower price levels, respectively (Fitzsimmons, 1985; Lovelock and Young, 1979). From a marketing perspective, prosumption allows firms to develop offers by follow-

ing a bottom-up process, which starts from a deep understanding of consumers' expectations and desires and, as such, improves the likelihood of succeeding on the marketplace. By collaborating with firms in value creation, customers may get more satisfaction from their consumption experiences, above all if they deliberately choose to prosume (Bendapudi and Leone, 2003).

Based on a case study approach, this research was aimed to illustrate four specific preconditions that firms should meet when they seek to adopt prosumption. We argued that, to turn customers into prosumers, firms should: (1) accumulate and exploit a large customer knowledge base, (2) create environments that facilitate customer-firm interaction, (3) persuade customers to accept and share firm values and ethical principles, and (4) implement specific customer-centered marketing strategies. By following a qualitative procedure, we found several cases of firms that successfully adopt prosumption and focused on five illustrative examples of firms that meet the proposed preconditions. Results of a content analysis carried out on corporate websites revealed analogies among firms in their adoption of prosumption-based strategies, but differences also emerged. A difference regarding the first precondition is that firms tend to involve customers in their innovation and value creation processes to a different extent. Amazon involves customers predominantly in consumption, by allowing them to share evaluations through a specific online recommendation system. Apple tends to involve its customers in product development and testing, by following an open source logic. Diesel tends to involve young trend setting consumers in idea generations and allows customers to personalize their consumption experiences. Procter & Gamble, which is the most innovative company among the five illustrated cases, involves customers in almost all phases of the value creation chain. Vodafone involves customers above all in pricing service development. A difference regarding the second precondition is that Apple and Vodafone were found to be more able than the other examined firms to create virtual environments where consumers may constructively interact and collaborate with the firm's experts in product and service development. Such environments have also been developed in many informal websites, blogs and social networks, which are managed by the firm only indirectly. A difference regarding the third precondition concerns Diesel, as it is the only firm among the investigated ones that has not developed an ethical code yet, and Procter & Gamble, which is more able than the other examined companies to develop specific official documents illustrating its values, philosophical principles and business conduct. Another difference regarding the fourth prosumption precondition deals with marketing strategies. Although all firms adopt customer-centered marketing strategies, Amazon predominantly adopts a *permission marketing*, while Apple tends to prefer an interactive personalization marketing. Diesel focuses on an experiential marketing, by offering emotional and symbolic consumption experiences to its customers. Procter & Gamble is the only firm that adopts a complex blend of marketing approaches, even if its "The Customer Is Boss" claim suggests that reverse marketing plays a special role in strategy development. Compared to the other examined companies, Vodafone has developed customer-centered marketing strategies later. Its strategies are primarily based on a blend of a reverse marketing and an interactive personalization marketing approaches.

This research provides a preliminary framework that may be helpful in conducting further studies on this emerging approach. *Prosumption*-based marketing strategies are more and more adopted by firms in an increasing number of markets. This is the case, for example, of semi-cooked food products, self-service departments in shopping malls, self-assembling and self-configurating computer systems, online music and movies on demand. In these and other cases, customers are allowed to intervene in the value creation chain, by personalizing their overall consumption experiences. This strengthens consumers' ties with firms and improves their satisfaction levels and loyalty, above all if firms are able to ensure acceptable perceived quality levels over time and avoid exceptional failures in keeping their promises.

After decades of dominion of the traditional *marketing mix* paradigm (the 4Ps: *Product, Price, Promotion*, and *Place*) (McCarthy, 1960), the recent diffusion of *postmodernism*'s approaches expands the horizon of research in this field. Researchers should pay more attention to the study of *prosumption* in particular, as it repositions the consumer at the center of marketing processes through his/her involvement in the value creation process. Further efforts and studies aimed at deepening the understanding of *prosumption* and formalizing basic principles are however needed, in order to develop and validate a new marketing paradigm on a larger empirical basis.

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