Customer-Integrated Business Models: A Theoretical Framework

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INTRODUCTION

When, in 2003, the Danish toy-building company Lego announced a \in 188 million loss, it decided to revisit its organization and strategy to fight back. In particular, the firm chose to implicate its customers in the conception of its products, so that they fit better their expectations. Hence, their customers have become actual co-creators of Lego's products, which Lego mentions on the boxes of the toys that are the outcome of the collaboration with its customers. Partly thanks to this decision, both Lego's sales and results have dramatically improved: at the end of 2007, the company made a \in 138 million profit, proving how advantageous it could be to associate its customers in its activities. The cases of Amtrak (a US railroad company) and Royal Mail (a UK postal services firm) are also interesting to study. Thanks to the development of self-services through interactive voice response systems, i.e. by outsourcing a part of the service given by the company's employees on their customers, the former saved \$13 million, while the other reduced its service costs by 25 percent (Salomann et al., 2006).

These cases are but mere examples of a major trend in the way firms have been developing their business models nowadays. Indeed, inspired by what has happened in open-source communities (e.g. Von Hippel and Von Krog, 2003), more and more companies have decided to make their customers participate in the design, production or delivery of their products. Such a move is enabled, notably, by the growth in the use of the internet and technological change at large (Prahalad and Ramaswamy, 2004). This means that firms have to create and nurture appropriate business models that will enable them to get the most of this integration of the customers in their activities (Holland and Becker, 2001). Thus, research on this topic is needed to help firms to improve their ways of incorporating the customer among their own internal resources and competences.

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Yet, even though things have been changing over the last few years, structured and formalized academic research on the business model (BM) concept remains in its early years (Lecocq et al., 2006). Most particularly, to the best of our knowledge, there has been no systematic study so far that deals with the various potential places and roles of the customer in the business model, i.e. about the manner may rely on their customers to generate higher margins by increasing revenues or decreasing costs. This may seem all the more surprising that empirical evidences are many, as we mentioned earlier. Though, academic contributions about BM mostly consider the customer as a mere buyer for the firm's products.

On the other hand, a great deal of literature has been published in the field of services marketing and management about the concept of customer participation, i.e. the way the customer takes part in the conception, production and delivery processes. Nevertheless, the most important part of it copes with issues related to quality, satisfaction, and loyalty improvement to generate a competitive advantage. It seems that no research has dealt with the relationship between organizational issues raised by customer participation, and the costs and revenues dimensions.

For these reasons, the aim of this paper is to try and contribute to the understanding of where and how the customer fits in the business model. In a first part, we underline the gaps of the BM literature as far as the customer is concerned, and highlight the reasons why it is necessary to reintegrate him. The second part presents the concept of customer participation, the motivations of the customer to participate, and the way firms can make the customer become a resource. The third and final part presents a theoretical framework of what we call Customer-Integrated Business Models (CIBM), which we exemplify with two case studies: Build-A-Bear Workshop and www.mymajorcompany.com.

1. THE BUSINESS MODEL AND THE CUSTOMER

In this section we define the business model (BM) and look at the evolution of the concept during the last ten years. Then, we discuss the place of the customer in the BM literature and demonstrate the need to reintegrate him in the analysis.

1.1. The business model concept

The BM concept has been developing from the end of 1990's due to the need for new ventures in the Internet industry to explain to investors how they will generate revenues (Eisenmann, 2002) but also due to various strategic innovations in terms of activities or sources of revenues from incumbent firms. Nowadays, even big companies are urged by institutions such as IASB to be able to describe their business models to stakeholders. Indeed, as noted by Magretta (2002), the first strength of a business model is that it tells a story about the business. In a more abstractive view, often labelled as "ontological approach", the BM is an operational tool expressing the business logic of an organization (Osterwalder, 2004). This story or this representation of an ontology may be seen as a convention between partners concerning the generation and sharing of value between stakeholders (Verstraete & Jouison , 2007).

Timmers (1998) is one of the first authors to have proposed a definition for BM. He mentions that "A business model includes an architecture for the product or service, an information flows, a description of the benefits for the business actors involved, and a description of the sources of revenue" (Timmers, 1998). During the last years, BM has essentially been related to value creation and appropriation. Thus, according to Shafer et al. (2005), BM is the representation of a firm's underlying logic and strategic choices to create and capture value within a value network. Nowadays, BM is essentially a matter of revenue generation (Weill et al.., 2004; Tikkanen et al.., 2005; Demil and Lecocq, 2008). The business model spells-out how a company organizes to make money. In the most basic sense, a business model is the method of doing business by which a company can sustain itself – that is, generate revenue (Rappa, 2003). The concept is now crucial for entrepreneurship and constitutes a very promising perspective of strategic management, based on a pragmatic and innovative approach. Rather than the traditional competitive advantage, business model approach stresses the revenue generation process and its consequences on profit. For instance, according to Afuah (2004), BM treat the simple question "How to make money in my industry?".

Following Lecocq *et al.* (2006), we define BM as the choices made by an organization (whether for profit or not) to generate revenues in a broad sense (turnover but also royalties, rents, interests, subsidies...). These choices encompass resources and competences to value, products and/or services supplied and the internal and external organization of the business. As such, BM approach encompasses operational elements whereas traditionally strategic management and operations are distinguished or opposed (e.g. Porter, 1996). This integrative approach gives a crucial role to implementation and to congruence between elements in the performance of an organization. Moreover, due to its ability to link business strategy and operations, BM is a "Meso" level construct congruent with the day-to-day frame of action of managers (Demil and Lecocq, 2008) and a very attractive concept to them (Tikkanen *et al...*, 2005)

Despite the number of research dedicated to the exploration of the BM concept and to its theorization over the last decade, structured and formalized research is in its early years. Yet, a lot remains to be explored, and in particular, it appeared to us that the various roles and the potential place of the customer haven't been deepened so far in the BM literature. This could look all the more surprising as the level of so-called "user generated content" has been growing very rapidly and as customers have become more and more a mean to produce a good or service but also a value to generate revenues from others actors (for instance in media industry) by valuing the size of the customers community or the specific characteristics of the clients. Thus, in the following section, we discuss the place of the customer in the various models proposing a clear articulation of the business model components.

1.2. Where is the customer in the business model literature?

An important part of the literature on BM is dedicated to the identification of the key elements to describe it and on which to act to change it. Indeed, as mentioned by Osterwalder (2004), BM is composed of the word "business" which refers to the activities related to the offering of products and services, and the word "model" which is a simplified description of a complex process that requires an important effort of conceptualization. The recognition of the main constituents allows BMs to be potentially comparable across industries. However, any of the proposed models seem to have become the standard in the literature. For instance, in 2005, Shafer *et al.* have inventoried 42 components in the major definitions of BM. Moreover, while some authors describe BM using static components, others mentions processes as BM constituents. For example, Mahadevan (2000) specify that a given BM is a unique

configuration of three flows: the value stream which refers to the value proposition for customers and partners in the value network; the revenue stream which identifies revenue generation and finally the logistic stream which deals with the organization and the various flows in the business itself.

Looking closely at the major descriptions of the BM components, it seems that customers are frequently quoted. Thus, Venkatraman and Henderson (1998) define the BM as a coordinated plan to design strategy along customer interaction, asset configuration and knowledge leverage dimensions. Then, Hamel (2000) considers the BM as the interaction of four axes: strategic choices, resources and competences, customers interface and value network of the stakeholders. Several years later, Chesbrough and Rosenbloom (2002) offer a more detailed conceptualization of the BM encompassing 6 elements: value proposition for customers, market segment, value chain structure, revenue generation and margin, position in the value network and competitive strategy. Voelpel et al. (2005) mention 3 basic components in a BM: a value proposition for customers, a value network configuration to create that value, and returns ensuring the satisfaction of relevant stakeholders and thus the sustainability of the BM. According to Tikkanen et al. (2005), the main components of a BM are the relationships network of the firm, the resources and business process operations, and the finance and accounting dimension of the firm. More recently, Brink and Holmen (2007) have formulated two crucial questions to define BM: how is the value created for the customer? And how does the innovating firm appropriate economic value? Thus, for the last 10 years, most of the research has mentioned the customer as a component of the BM. However, it seems that he has been considered essentially as the addressee of an offer or from a more general point of view as the target of a firm's value proposition. Indeed, Chesbrough and Rosenbloom (2002) suggest that the value proposition is a firm's solution to a customer's problem.

Beyond the identification of components, the BM approach frequently focuses attention on how pieces of the business fit together in a strategic fit or configurational perspective. As mentioned by Osterwalder (2004), "A business model is a conceptual tool that contains a set of elements and their relationships and allows expressing a company's logic of earning money". According to our project to shed light on the place of the customer in the business model literature, we look at the main models and try to identify the key elements of BM and particularly the conception and role of the "customer" in these models. We have chosen three models allowing both to describe and design a BM, whether specific (for a given firm) or generic (for instance, the "low cost" business model)

The Osterwalder's model (Cf. Figure 1) is based on 4 blocks (infrastructure, offer, customer, finance) and 9 components, and thus is one of the most detailed. Infrastructure (internal and external organization, i.e value chain and value network) generates costs but allows to create a value proposition (an offer) for customers. In this model, the client is the target of the value proposition and the origin of revenue streams. He is not a part of the infrastructure nor an actor involved in the definition of the offer.

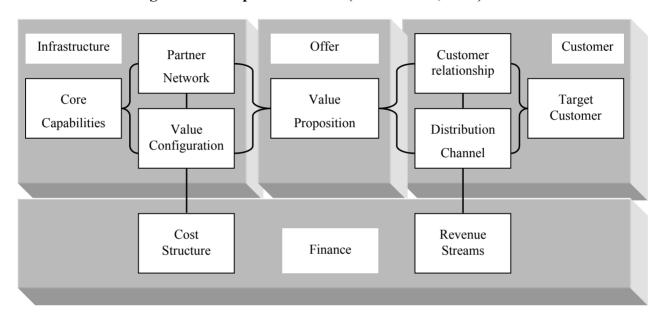
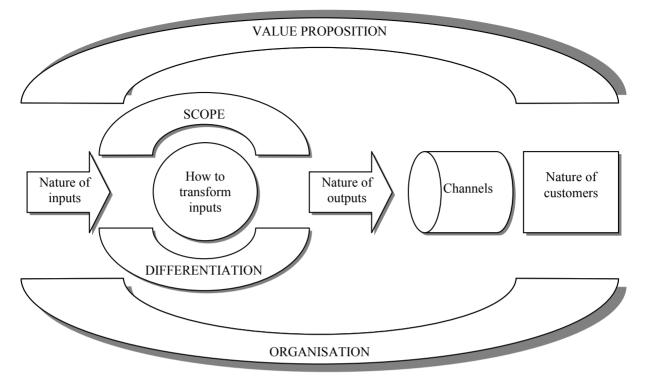


Figure 1: 9 components of BM (Osterwalder, 2004)

Yip's model (2004) put the emphasis on the transformation and the distribution processes of the firm (Figure 2). In this model, the customer is at the end of the whole process of production and distribution. Here again, the customer received the firm's output through distribution channels without any potential role of "content generator".

Figure 2: Elements of a business model (Yip, 2004)



A third approach of the configurational perspective of the BM model is is the RCOA model (Lecocg et al., 2006; Demil and Lecocg, 2008; Volle et al., 2008). The basic assumption of the RCOA model is that a firm builds its BM by making various choices to generate revenues in a broad sense (turnover, royalties, rents, interests, subsidies, assets handovers...). These choices encompass resources and competences to value (Resources and Competences), products and services offered (Offer) and internal and external organization of the business (Activities). The resources and competences are valued through the supply of products or services on markets (the offer). The organization refers to the choice of operations that an organization takes in charge itself (its value chain) and on the relations it establishes with other organizations (its value network, including suppliers, customers, competitors, regulators, complementors). In the RCOA model, these three basic elements (Resources and Competences, Offer, Activities) of a BM determine the structure and the volume of costs and revenues of a business and then its profit margin (thus, the sustainability of the BM). More precisely, as in the Osterwalder's model, the cost structure is essentially driven by the organization a firm deploys. The revenues volume ad structure depends above all of the products and services it proposes to its customers.

In the RCOA model, customer is not an element of a BM. However, the authors mention that the customer may be a constituent of the external organization (the "activities" dimension of the model).

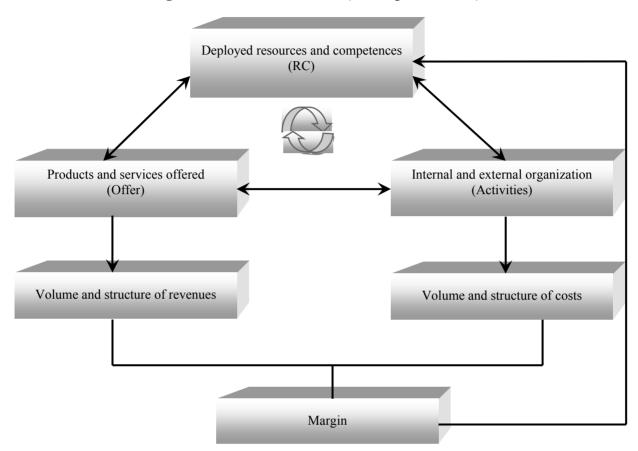


Figure 3: The RCOA model (Lecocq et al., 2006)

Finally, it appears that even if most of the BM definitions mention the customer, they only treat him as a revenue yielder to whom the value proposition is addressed. The configurational perspective of the BM and the various models proposed to describe the relations between BM constituents allows to confirm the absence of the customer from the main firm processes and the implicit negation of its ability to be a "content generator" in the BM literature.

However, beyond general frameworks aiming at theorizing business models, we may find more specific work centred on the integration of the customer in the innovation process or production process of a given firm. Thus, Von Hippel's classic book *The sources of Innovation* (1988) has underlined the potential role of the customer helping the firm to innovate. In 2005, Von Hippel has specified his understanding of what he labels as "user-driven innovation", mentioning the concepts of "lead users" or "user toolkits". Other authors have stressed the importance of users in the production of a good within the open source

communities (see for instance Von Hippel and Von Krogh, 2003) characterized by an intertwining of the "producer" and "customer" roles (Demil and Lecocq, 2006). These various work have lead some researchers to suggest from a more general point of view a new paradigm for innovation: the open innovation (Chesbrough, 2003), where firms leverages both internal and external source of ideas and where the commercialization of a new offering is done with various partners through partnerships, licences or spin offs (Nambissan and Sawhney). More recently, the burst of the Web 2.0 technology has provided a much more important base of distributed intelligence to which firms are more and more seeking to have an access to benefit from from this "crowdsourcing". Jeff Howe (2006), a Wired editor, has forged the term and defined it as "the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined - and generally large - network of people in the form of an open call". Crowdsourcing is empirically at play every day in many industries such as media but has seldom been studied by researchers. An exception is Chanal and Caron-Fasan (2008) who are interested in the business model of crowdsourcing projects. In the same vein, Chesbrough (2006) has deepen the relationship between open innovation and business models, labelling "open business models" to qualify the mean for a firm to create and capture more value thanks to the openness of innovation process to various partners, among which customers.

Despite their interest and their richness, none of these works provide a general framework to study the different types of contributions a customer may do, nor do they study the different types of customer integration into the firm processes and their impact on the firm infrastructure. Indeed, some of them are more concerned with the general idea of openness and thus deal with external inventors, partners firms, intermediaries and so on more than customers. Some are more concerned with customers but do only treat one kind of customer participation such as innovation or one kind of customer (for example users' community). However, these works dedicated to the role of the customer in the offer of a firm illustrate the need to consider the client and call for a general theory to understand the various processes at stake in the customer participation from a BM point of view. We may build on each of the previous research to propose a general framework for the integration of the customer in a firm's business model. Indeed, customer participation has to be considered in the BM theory as more and more companies have been implementing Customer-Integrated Business Models (CIBM), in which the customer plays an important role.

To theorize the CIBM, we may first enrich our knowledge about customer participation as a great deal of research has been published in the field of services marketing and management on the way the customer takes part in the production process.

2. CUSTOMER PARTICIPATION

To participate literally means "to take part in something, in its outcome". Applied to the customer of a firm, it implies an action, or a group of actions by the customer, actions linked to the production of a good or a service. This leads to many questions, such as: in what circumstances does this action take place? Is it spontaneous, or provoked by the firm? Why does the customer participate? Etc. The purpose of this section is to cast some light on these subjects. From this perspective, we focus first on the nature of customer participation. Secondly, we study more precisely what leads a customer to participate.

2.1. The nature of customer participation

To begin with, customer participation is not new, as from 1938, Barnard himself noted the role played by the customer (Novicevic *et al.*, 2006). It gave rise to a lot of research, mainly in the field of services marketing and management, where the way the customer can take part in the servuction process to co-produce the service (Eiglier and Langeard, 1987) has been studied. However, not all the publications that deal with customer participation concept define it. In fact, only a few of them give an explicit definition, while others merely refer to a common sense, or to main dimensions (e.g. Fitzsimmons, 1985; Bowers *et al.*, 1990; Bitner *et al.*, 1997). Thus, Table 1 below shows that the literature does not really acknowledge one clear definition of the concept. Based on this table, we are we are going to specify the main dimensions of customer participation.

Table 1: A chronological review of definitions of the customer participation concept

Author	Definition
Kelley et al., 1990: 315	"For many services, the customer is required to contribute information or effort before the service transaction can be consummated"
Dabholkar, 1990: 484	"The degree to which the customer is involved in producing and delivering the service"
File et al., 1992: 6	"'Participation' as a marketing construct, refers to the types and level of behavior in which buyers actually engage in connection with the definition and delivery of the service (or value) they seek"
Cermak et al., 1994: 91	"Participation refers to the customer behaviors related to specification and delivery of a service"
Bettencourt, 1997: 402	"The customer's active role in the production or delivery of a service"
Rodie and Kleine, 2000:	"Customer participation (CP) is a behavioral concept that refers to the actions and resources supplied by customers for service production and / or

	delivery. CP includes customers' mental, physical and emotional inputs"
Namasivayam, 2003: 422	"The consumer's role in production processes, whether it is a service or tangible good"
Hsieh and Yen, 2005: 895	"The extent to which customers provide resources in the form or time and / or effort, information provision, and co-production during the service production and delivery process"
Lusch and Vargo, 2006: 284	"[Co-production] involves the participation in the creation of the core offering itself. It can occur through shared inventiveness, co-design, or shared production of related goods, and can occur with customers and any other partners in the value network"

This table calls for a certain number of comments, as it enables to bring out many important dimensions of customer participation. In particular, it permits to identify four important characteristics: the nature of the production the customer participates to (what does the customer contributes to?), the moment this participation takes place (when does he participate?), who this participation concerns (with whom does the customer interact?), and the nature of customer participation itself (what inputs does the customer bring into the process?).

2.1.1. Nature of the production and moments of customer participation

Firstly, the definitions cited in Table 1 inform us about the nature of the production the customer participates in: it can be either a service, either a good. As we mentioned earlier, most of the research about customer participation focuses on service production. Yet, some of the abovementioned contributions have highlighted the possibility for the customer to participate also in goods' production (Namasivayam, 2003; Lusch and Vargo, 2006). This is not new, as from 1978, Von Hippel explained how customers could participate in the elaboration of the design of a good. Indeed, relying on end-users competences to generate new ideas and develop innovations proves to be very efficient (Lilien *et al.*, 2002; Von Hippel and Katz, 2002). In other words, customer participation is not necessarily tied to service production, but may also concern goods. So the customer can participate in the creation of both goods and services.

Secondly, this table evidences when the customer participates in the value chain. We've just specified that this participation may happen at the design stage, which some authors quoted in table 1 confirm (File *et al.*, 1992; Cermak *et al.*, 1994; Lusch and Vargo, 2006). This participation may happen through a process of comprehending customer expectations and preferences, in the course of iterations of submitting new products ideas, concepts or

prototypes and analyzing customers' feedback about these (Joshi and Sharma, 2004). Prior to the production and delivery stage, the customer may also participate in another manner, such as testing goods or services (Lagrosen, 2005; Matthing *et al.*, 2004; Kristensson *et al.*, 2008). This proves to significantly contribute to value co-creation between the firm and the customer (Edvardsson *et al.*, 2005), even though it does not go without limitations due to customers' cognitive limitations (Ullwick, 2002).

The customer may participate during the production and / or the delivery stage too (e.g. Kelley *et al.*, 1990; Dabholkar, 1990; Bettencourt, 1997). At this level, the customer may not contribute the same way in the case of a good or a service. The academic services literature has usually considered production, delivery and consumption, to happen at the same time (Lovelock and Gummesson, 2004). Consequently, customer participation in the production process of the service is supposed to mean customer participation in the delivery process. On the other hand, it is harder for a customer to take an active part in the production of a tangible good, whereas he may participate in its delivery, i.e. in the service that completes the good (think of take-away food, for example, where the customer is in charge of the delivery to home, while he did not participate in the production of the food).

Finally, the customer may also participate after the delivery stage. We did not find any definition that emphasizes this, but some articles also underline the "co-marketer" role of the customer (Gouthier and Schmid, 2003; Chervonnaya, 2003). In this case, the customer may recommend (or not) a good or a service to his / family, friends, etc. This role has become all the more important that, with the internet, any customer can also describe any pleasant or unpleasant experience with a product to anybody.

2.1.2. The actors concerned by customer participation

The customer himself is obviously the main actor to be concerned by this participation. For instance, customer participation may influence his satisfaction (Kellogg *et al.*, 1997; Youngdahl *et al.*, 2003). However, besides him, it also involves many other actors he interacts with while participating. The previous definitions enlighten us on some of them, more or less explicitly.

Front-line employees come first, as they are in direct contact with customers. Surprisingly, this is only implicit in Table 1 definitions. This is surprising, considering the direct and indirect influence the customer may have over these employees (Rafaeli, 1989). In particular, the customer has been considered as a "partial employee" (Mills and Morris, 1986), and as a

consequence has been supposed to alleviate front-line employees workload, since a great amount of work can be shifted to the customer. Nevertheless, other studies prove customer participation to increase this workload, notably psychological workload, because customer participation frequently induces an increase in employees' tasks variety and difficulty, i.e. work uncertainty (Hsieh *et al.*, 2004).

Beyond its employees, the firm is another actor impacted by customer participation, and may rely on them to build new experiences of consumptions (Prahalad and Ramaswamy, 2004). At the organizational level, implicating the customer into the different steps of the development, production and delivery of a product has an effect on coordination (Larsson and Bowen, 1989; Plé, 2006).

Other customers are a third category of actors that can be concerned by customer participation. When a customer participates, he may be in the presence of other customers with whom he may interact (Parker and Ward, 2000). These interactions can potentially lead to new ideas of product (Lundkvist and Yakhlef, 2004), influence these other customers perceived service quality and / or satisfaction, or their intention of purchase (Harris *et al.*, 1997 in Parker and Ward, 2000).

2.1.3. Customer's inputs

Table 1 also sheds light on the nature of customer participation. The contribution of the customer takes different forms, from merely communicating information to the firm so that it can offer a product that matches customers' expectations, to making efforts that will enable the customer to get the product (Kelley *et al.*, 1990). To that extent, Rodie and Kleine (2000: 111) mention three different kinds of inputs the customer provides to the firm: mental, physical and emotional. However, the literature leads us to identify four other kinds: financial, temporal, behavioral and relational inputs. Figure 4 below recapitulates on these seven inputs that compose customer participation. Not all of them may be mobilized every time the customer participates. It may depend, for example, on the nature of the product that is concerned by the participation, or on some particular traits of the customer himself.

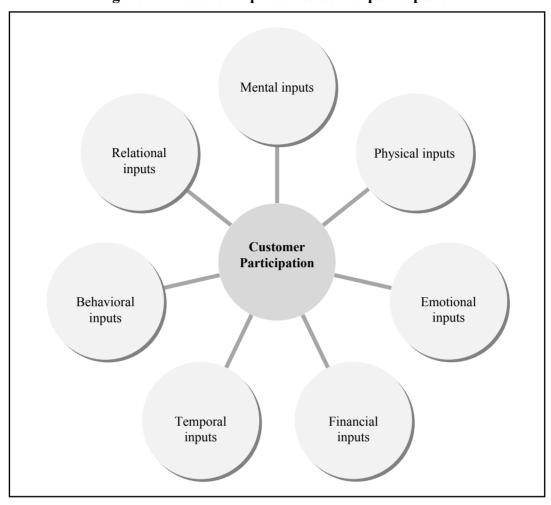


Figure 4: The seven inputs of customer participation

Mental inputs include the information given by the customer to the firm, as well as the mental efforts he agrees to do to get the product (Mills *et al.*, 1983; Mills and Turk, 1986; Rodie and Kleine, 2000). In this case, the customer actually does a "cognitive labor" (Rodie and Kleine, 2000: 112), i.e. makes a mental effort to structure the information given to the company, to understand how to get the product, or to understand what he is supposed to do as a participant. Physical inputs "include customers' own tangibles and physical efforts" (Rodie and Kleine, 2000: 112). The first ones range from a part of the customer's body (for example, the customer's face when going to a beautician), to goods owned or managed by the customer, such as clothes taken to the dry-cleaner's (Lovelock, 1983, 2001). As for physical efforts, they mean labor for the customer, as they include actions undertaken during the participation (Siehl *et al.*, 1992). For instance, it can be following the fitness program designed by a personal coach. The last type of inputs cited by Rodie and Kleine is emotional inputs. They comprise all the emotions felt by customers while participating. An example would be a

patient (or not) behavior during an unpleasant interaction with a non-competent or unpleasant employee.

In addition to these three categories of inputs, four others emerge from the literature. To begin with, financial inputs correspond to the price paid by the customer to get the product (Bitner et al., 1997). This implies that the customer decides to allocate his financial resources to the detriment of another product. These inputs are different from what Rodie and Kleine call physical inputs, since the latter are goods possessed or managed by a customer who needs the firm to modify, to repair, etc. Temporal inputs are another category that relate to the time it takes a customer to participate. Being part of a group of customers in charge of thinking about a product's design or technical specificities may be very time-consuming. However, this time expenditure varies greatly from one context to another: for instance, it takes more time to assemble IKEA furniture than to withdraw cash. The time a customer is willing to spend to get a product is taken into account into his assessment of the total value of this product (Beaven and Scottie, 1990; Song and Adams, 1993). Furthermore, the time spent to learn how to use the product or how to participate before even getting the product has to be taken into account as well (Mills and Morris, 1986).

We label the next sort of inputs "behavioral inputs". According to Grönroos (1984; 2001), service quality is composed of two different parts. Technical quality designates the quality of the outcome, i.e. of the service the customer gets in itself (e.g. being transported from point A to B by an airline company). Functional quality is the quality of the process that leads to this outcome: it concerns the manner the service is delivered to the customer (e.g. the appearance and behavior of the airline staff). Kelley et al. (1990; 1992) transpose these two concepts to the customer, and consider that he can influence the quality of the service though both what he does in the service process, but also through how he does it. The former ("what") has been dealt with earlier, since it essentially relates to mental and physical inputs. As a result, it is not a part of the customer's behavioral inputs. The latter ("how") refers to interpersonal dimensions of the interaction between a customer and a service employee, and focuses on the way the customer behaves during this interaction: how fast he will give information, bring his good to the firm, whether he show goodwill (or ill-will) to participate, etc. Thus, we call these, "behavioral inputs", as they refer to the participative behavior of the customer. It is a larger category than Rodie and Kleine's "emotional inputs", since as we explained it, it is not only limited to the customer's emotions.

Relational inputs are the last class of customer's inputs. They derive from the fact that a customer's expectation and future behavior towards a service provider is influenced by previous encounters with a service provider (Grönroos, 2001). Accordingly, it seems rational to think that the content of past interactions is liable to influence the manner the customer enters upcoming interactions in a similar context (be it with the same employee, the same company, or even another company of the same sector).

2.1.4. The intensity of customer participation

The customer does not always participate the same way, or even with the same intensity in the production process. To illustrate this, the definition of Dabholkar (1990) mentions "the degree to which the customer is involved [...]", and the one of Hsieh and Yen (2005), "the extent to which customers provide resources [...]" (italics added by us).

Determining the optimal level of customer participation is strategic (Bowen, 1986). Nevertheless, it is highly contingent upon a sector of activity, and even upon a company, as it depends on the organization and the strategy of the firm (Bitner *et al.*, 1997; Larsson and Bowen, 1989; Mills and Morris, 1986). As a result, the literature provides continuums of participation that can help to determine the customer's "role size", i.e. the importance of the participation (Rodie and Kleine, 2000).

Thus, in the case of a service, Bowen (1986) distinguishes between two situations: the ones when the customer is a co-producer with other employees, and the ones when he can be considered as the sole producer. Before him, Fitzsimmons (1985) had underlined that it was possible to envisage a spectrum of services production and distribution, from Do-It-Yourself (DIY) to an entire dependence vis-à-vis the service provider.

Kelley *et al.* (1990) also propose two extremes of customer participation. On the one hand, if the customer is familiar with the service, his participation will be rather mechanical: his efforts, in particular cognitive efforts, will be negligible. In such a situation, the customer may be qualified as an "expert" (Bateson, 2002). On the other hand, if the customer is a "novice" (Bateson, 2002), i.e. is not familiar with the service, or if the service induces important mental of physical efforts, the customer will be engrossed in his participation (Kelley *et al.*, 1990). Meuter and Bitner (1998) make a distinction between three situations: firm production, joint production and customer production. In the first case, the product is produced entirely by the firm and its employees, without any participation by the customer. In the case of joint production, the customer interacts with the firm's contact employees to participate in the

production. And, as indicated by its name, customer production is a situation in which the customer entirely produces the product, without any intervention by the firm's employees. This last kind of situation is more and more frequent, alongside with the development of more and more sophisticated self-service technologies (Meuter *et al.*, 2005; Curran and Meuter, 2005).

Finally, Bitner *et al.* (1997) differentiate between three levels of customer participation (low, moderate, and high), that depend on the degree of standardization of the product.

2.2. Determinants of customer-participation

What precedes casts some light on what customer participation is. Nonetheless, by no means it informs us about the reasons why the customer participates. According to the literature, there are two different kinds of determinants that explain the participation of the customer: the first one relies on the customer himself, whereas the second one depends on the firm that needs the participation. Surely, these two set of factors are related to each other.

2.2.1. Customer-based determinants

Following Bowen (1986), Rodie and Kleine (2000) propose three determinants of customer participation: the size of the participation, i.e. the part of the product the customer produces and / or delivers herself, the customer ability to participate, and the willingness to participate. Meuter *et al.* (2005) identify customer ability, role clarity (is what the customer has to do clear to him?), and customer motivation. Lengnick-Hall *et al.*. (2000) emphasize three main factors: perceived role clarity (how clearly does the customer perceive what he has to do?), customer's ability or technical competence, and customer's motivation to participate. And finally, Goodwin (1988) insists on the need for the customers to be aware of their role in the production process (customer awareness). Accordingly, we focus here on the subsequent four customer-based determinants: customer awareness; perceived role clarity; perceived ability; and motivation to participate.

To the best of our knowledge, **customer awareness** is the least studied customer-based determinant of customer participation. It refers to a process of socialization followed by the customer while learning different roles that are specific to the characteristics of hiher participation (Goodwin, 1988; Kelley *et al.*, 1990). Indeed, the customer has to become aware, then learn and finally know how and when to adopt and display the behavior demanded to participate in a production process (e.g. what actions, what to bring, etc.). Stated otherwise, the customer has to identify with a particular set of behaviors, a process which

Kelley *et al.* (1990: 328) call "role identification". This identification should entail or help the customer to behave as expected in a particular setting, and should ease the customer adaptation to future similar settings (e.g. understand he has to clear the table off when going to a fast-food for the first time).

There are three different levels of customer awareness. The first one relates to the need of the participation: the customer has to become aware that hiher participation is needed in the process (Goodwin, 1988). The customer also has to be aware of both the practical details and the importance of this participation (what has to be done, where to go, how to behave, etc.). Finally, the last level concerns customer motivation: the customer has to be aware of the advantages he can get from his participation, otherwise he may not want to participate (Bowen, 1986). Hence, if the customer is not aware of the need for his participation, doesn't understand the dimensions of this participation (what, how, etc.), or doesn't perceive the resulting advantages for him, there are two possible consequences: either he will not participate; either he will not participate correctly. This may result in negative outcomes for the customer (e.g. a lower satisfaction) and / or the firm (e.g. a lower productivity). Accordingly, it is necessary that the latter explains precisely what it expects from the customer, as we will deal with it later.

Perceived role clarity is the second customer-based determinant of customer participation. It is a part of the knowledge that enables the customer to know and understand what he has to do (Bowen, 1986; Bitner *et al.*, 2002; Meuter *et al.*, 2005). By definition, this role clarity is "perceived", as it depends on the way the customer understands the role the firm expects him to play. It is a determining dimension: for instance, Bitner *et al.* (1997) show that the higher the level of role knowledge and understanding, the higher the propensity to participate. Perceived role clarity is dependent on four major factors peculiar to the customer. The first one is the customer's own experience with a firm. Based on previous experiences with a specific firm, the customer is able to develop a script, i.e. "a set of behaviors that are appropriate for the situation and will increase the probability of goal attainment" (Solomon *et al.*, 1985). The second one is the cumulated experience by the customer in similar contexts (Bowen, 1986). Thirdly, the customer who is in a brand-new situation when he doesn't know how to behave may rely on potential previous experiences in similar contexts. At last, he may even do as the other customers (Parker and Ward, 2000).

To conclude about perceived role clarity, it is important to note that it is not static, but as implicitly stated above, it is dynamic by nature. The customer progressively learns and

redefines his role as he accumulates experience with the firm, the context, etc. This is what leads Bateson (2002) to make a distinction of novice from expert customers. This dynamic nature doesn't go without any consequences for a firm that needs its customers to participate, as it means it is in its interest to clarify the customer role(s) as much as possible.

The customer must have the necessary skills to perform his role (Bitner et al., 2002). So, customer ability refers to "what a person 'can do' rather than what he or she "wants to do" or 'knows how to do'" (Meuter et al., 2005: 64) in a context where the customer is expected to participate in the production process. In other words, it corresponds to the capacity of the customer to fulfill his role in this process (Chervonnaya, 2003). This ability is bi-dimensional, as it is possible to discriminate between actual and perceived customer ability. Actual customer ability corresponds to what the customer can really do, what he's skilled in. Perceived customer ability, or service use self-efficacy (Mc Kee et al., 2006) concerns the perception the customer has of these skills: if he believes not to possess them, or not to be skilled enough to use them, he may not engage in the appropriate behavior (Mc Kee et al., 2006), even though he admits that it is a better choice (Seltzer, 1983). This lack of selfconfidence is liable to hinder the overall performance of the process the customer takes part to, as well as limit customer satisfaction (Goodwin, 1988). Consequently, even if the firm considers that its customer has the necessary intellectual, physical, mental, and other kind of skills to participate, it will fail as long as the customer does not share the same perspective. In such a situation, the firm has no other way to help the customer to modify his perception (something we will deal with a little bit later). This implies that, like perceived role clarity, both actual and perceived customer ability to participate are not set once and for all. Customers have the opportunity to enhance them through their experiences and their desire to learn from these experiences (Prahalad and Ramaswamy, 2000, 2004).

The last customer-based determinant is the **willingness** of the customers to participate. Indeed, even though the customer is aware of the need to participate, has a clear representation of the role he should fulfill, and is able to participate, all of this is useless if he does not accept to participate. As a matter of fact, not all the customers agree to participate, or to have the same level of participation as other customers (Bowers *et al.*, 1990; Bateson, 1983, 1985). Three reasons explain these differences: firstly, some customers do not identify what they could get from their participation; secondly, the customer might refuse to participate due to some individual characteristics (psychological, behavioral, etc.); and

thirdly, the customer could consider that he does not have the skills to participate, or that the size of the participation is too important, as we have already noticed.

To overcome these restrictions to customer participation, it is imperative to identify the means to motivate the customer. By the way, this means that, like perceived role clarity or customer ability, customer willingness to participate can evolve over time. One way to surmount these limitations is to make sure that the customer understands how his participation maximizes the efficiency of the process. Since the firm partially transfers a part of the total production cost on the customer when he participates, he expects the firm to retrocede a part of the cost savings. This explains why customers show a greater willingness to participate when this participation is compensated for by a lower price (Fitzsimmons, 1985). Yet, not all customer needs are economically-driven (Bowen, 1986). For example, some research about self-service technologies, i.e. with a high level of customer participation, show that the customer was all the more motivated to participate as it enabled him to save time (Bateson, 1985; Bitner et al., 2002; Bowers et al., 1990). At the same time, the ease of use of these technologies proves to play a major role in their adoption (Weijters et al., 2007). The customer may also get advantage from interactions with other customers. A recent research that studied customersto-customers interactions via firm's hosted commercial online communities demonstrate that the customer is all the more ready to participate, i.e. to exchange information with other customers, that the informational value he perceives in the community is high (Wiertz and de Ruyter, 2007).

The motivation of the customer to participate may also increase when he understands that it means increasing the current quality of the product (Bowers *et al.*, 1990; Rodie and Kleine, 2000; Kellog *et al.*, 1997). It is the same for the customers who have clearly identified the inputs they have to bring into the process, as well as how they have to bring them (Bitner *et al.*, 1997; Schneider and Bowen, 1995). The customer can also be motivated to participate when he deem this participation may improve the future level of service quality. This is why some customers decide to complain when something went wrong. In this case, the participation happens after the consumption of the product. However, this complaint implies efforts (intellectual, physical, time, etc.), effort that the customer will only be ready to make if he believes that the firm will remedy the encountered problem (Snellman and Vihktari, 2003).

To participate also often involves getting psychological advantages (Bendapudi and Leone, 2003), something which is very motivating as well. As an example, novelty or innovation may appeal to some customers, just as a possibility to entertain while participating

(Dabholkar, 2000). This is why, as we noted earlier, some customers like to participate, because they merely appreciate taking part in the production process (Bateson, 1983, 1985). The perceived level of control is another psychological advantage that may lead the customer to participate more actively to the production. The higher control the customer perceives over the production, the higher his level of motivation (Bateson, 1985; Dabholkar, 1996). The self-image improvement that results of this increased perceived independence and control have been suggested to explain this higher customer motivation to participate (Goodwin, 1988). Psychological advantages may also be drawn from interactions with other customers. The aforementioned study about customers' contribution to fir-hosted commercial online communities shows that customer's commitment to the community positively influences the willingness of the customer to participate to contribute to knowledge generation for other customers (Wiertz and de Ruyter, 2007).

Finally, this willingness to participate has also been proposed to vary in function of the extent of role identification by the customer. In fact, a participative customer has two roles (Kelley *et al.*, 1990).On the one hand, the traditional customer role, when buying and / or consuming the product. But on the other hand, we noted that the customer also has the role of a "partial employee", when taking part in the production. According to Kelley *et al.* (1990), customers who identify more strongly with the role of partial employee will be more willing to adapt or transform their behavior to contribute more effectively. As it was the case for the other customer-based determinants, companies have many tools at their disposal to influence this behavior, e.g. to encourage the customer to participate, or to increase the extent of this participation. We are now going to focus on these tools.

2.2.2. Company-based determinants

A part of the academic literature considers the customer as a major source of uncertainty and consequently as an impediment to the firm's productivity and efficiency (Chase, 1978, 1981). To limit the uncertainty and thus improve the firm's efficiency, it is then important to limit the contact time spent between the firm's employees and its customers.

On the contrary, other authors see the customer as contributing to the firm's productivity through his active participation in the process (Lovelock and Young, 1979; Graf, 2007). In this case, the customer is once again regarded as a partial employee who can be managed thanks to some organizational socialization techniques usually applied to employees (Bowen, 1986; Bowers *et al.*, 1990; Halbesleben and Buckley, 2004). In the case of the customer, organizational socialization refers to a process aiming to develop customer skills, knowledge

and attitudes that are relevant to the setting these skills, knowledge and attitudes apply (Kelley *et al.*, 1990, 1992). Yet, there is one major difference between customers and employees socialization, given that the customer does not actually work for the company. Indeed, there is no work contract between the firm and the customer, which makes things harder for the firm to control its customers' behavior (Jeantet, 2001).

During this process, many techniques and tools are used to clarify customer participation, to specify its importance, and finally to help the customers to participate by enhancing their abilities and increasing their willingness. Stated otherwise, organizational socialization techniques are used to reinforce what we previously presented as customer-based determinants of customer participation. Hence, they play a huge role in the way the customer participates, and it is then surprising to note how scarce empirical research about customer organizational socialization is (Groth, 2005).

To begin with, organizational socialization techniques may be leveraged to clarify what and how the customer has to do. In other words, they aim to improve the customer's perceived role clarity, or to specify the qualitative importance of customer participation in the production process. At this level, it is important for the firm to define precisely what the "job" of the customer is. This will help to recruit appropriate customers, i.e. customers who are motivated and have the necessary skills to participate (Halbesleben and Buckley, 2004). Defining precisely what the customer has to do also helps to develop formal programs of socialization, including a preliminary and realistic presentation of the production process, through "organizational literature" (Kelley et al., 1990), such as brochures, leaflets, etc. It is also possible to use what Bitner (1992) calls "the servicescape" (i.e. the physical environment such as atmospherics, physical elements, decor elements...) to help the customer to understand what to do and how to do it. Procedures (for instance, queues) and precise rules also provide the customer with some clues about the appropriate behaviors to show (Bowen, 1986; Rodie and Kleine, 2000). Finally, organizationally socializing the customer is also supposed to positively impacts his satisfaction (Kellogg et al., 1997), even though other research show contradictory results (Groth, 2005).

Secondly, the firm has to **help the customer to understand what its expectations are** in terms of quantitative importance. Indeed, we noted earlier that the customer may not always participate in the same way, or at the same degree. This greatly varies from one industry to another and even from one firm to another. However, whatever the ideal size of customer participation defined by the firm, in the end, only the actual actions of the customer define the

real size of this participation. To this extent, individual characteristics of the customer may play an important role. For example, customer commitment to a firm and its products and services impacts his willingness to participate in a online community to answer other customers' questions about these products and services (Wiertz and de Ruyter, 2007). In this case, it is difficult for the firm to influence the importance of customer participation. On the contrary, it is easier in other situations, such as when the firm can circumscribe both its size and duration. In effect, whereas some customers may not understand when their participation begins, others do not understand when it has come to an end. As a consequence, firms need to know how to end this participation, even though the customer does not want to (Hubbert *et al.*, 1995). In some cases, the customer may hinder organizational performance, if he is unable to provide the resources expected by the firm. To avoid such situations, the firm has to plan organizational withdrawal procedures of the customer (Halbesleben and Buckley, 2004).

Besides, the firm has also an interest in developing its customers' ability to participate. To do so, a first step may rely in the implementation of a selection and recruitment process of the customers (Bowen, 1986; Mills and Morris, 1986), based on the analysis of their behavior and the determinants of this behavior (Lovelock and Young, 1979). Thus, "the more complex the production-related skills and knowledge required of the client, and the greater the extent and length of client inclusion, the more resources one would expect to be directed at the selection of client with the higher a priori ability to perform within the service operation" (Mills and Morris, 1986: 729). This recruitment and selection step may rely on marketing and advertising to identify the customers who would be interested in contributing to the production process. Nevertheless, such a process isn't easy to execute since the firm does not always have reliable information to identify the appropriate customers. To compensate for this lack of information, Mills and Morris (1986) suggest socializing the customer before the production process, i.e. to shape the skills of the customer before entering the production stage, to ensure that these skills matches the needs of the firm. However, the authors admit how hazardous this strategy may be, since the customer may decide to use another provider. In this case, the firm would work for its competitors and raise its costs. Accordingly, most firms favor the development of training programs for their customers once they have begun to interact with the firm (Bowers et al., 1990; Zhao et al., 2008). Information and knowledge are transmitted to customers so that they can improve their abilities to participate, through the same tools used to make the participation clearer in the eyes of the customer (preliminary presentation, organizational literature, etc.). This is all the more crucial that the firm has

introduced a new technology, since it enables to limit customer anxiety vis-à-vis this technology (Matsson and Helmersson, 2005; Zhao *et al.*, 2008). Furthermore, customers who demonstrate a poor quality level of participation, i.e. they do not behave as they should because they do not know how to perform their participation, are very likely to blame themselves. Consequently, they are also more likely than customer who performed correctly to expect future failures to occur, which is the opposite of what a firm needs to succeed, raising the imperative need to help the customer to learn how to participate (Yen *et al.*, 2004).

Relying on the firm's employees to train customers and encourage them to participate also helps to increase customers' ability. What's more, the interpersonal interaction between the employees and the customers is supposed to contribute to the evolution of the latter's self-image. Thanks to this interpersonal interaction, the employee has a greater opportunity to convince the customer that he is capable of doing what he's expected to do (Goodwin, 1988). And as we stated earlier, customer's confidence in his ability to participate is crucial. It should also reinforce customer willingness to participate, i.e. the last customer-based determinant the firm may have an impact upon.

Many studies showed that rewarding customer contribution is very efficient **to motivate the customer to participate**. Indeed, customer willingness is function of a set of monetary and non-monetary advantages (price cuts, time savings, higher quality, etc.). Compensating for the participation is then an important condition to persuade the customer to take part in the process, even though it is not true for all the customers, as we explained earlier (Bateson, 1985). Moreover, it would seem that a negative relationship exists between the level of perceived risk related to participation, and the willingness of the customer to participate (Abernathy and Butler, 1993).

However, even if these advantages are objectively present, they are useless until the customer perceives them. This is why the firm has to to develop, or even build, customer awareness of these advantages (Ennew and Binks, 1996). Marketing and communication policies centered on the benefits the customer can get from participating may be very useful. The best way to effectively communicate on what the customer is interested in as benefits is to associate him to the determination of these benefits, of the product offer, in the definition of the "customer job", etc. (Graf, 2007). Once again, the use of organizational literature and any other organizational socialization technique are other ways to increase customer willingness to participate, as a result of the better understanding of the tasks fulfilled by the organization. In a nutshell, it means that firms have to adopt a relatively transparent communication about

their internal processes, so that the customer understands how and where he fits in to improve the efficiency of the process and the quality delivered (Lengnick-Hall, 1996).

To conclude, the way a firm deals with customer complaint is very important as well to increase customer willingness. In fact, we previously mentioned that complaining could be considered as a way to participate after the production process. If the customer notices that despite the effort he made, the quality of the product does not improve, his motivation to participate during the production the next time he's supposed to participate may well be significantly lower (Snellman and Vihktari, 2003). Hence, though the support it brings, the firm gives the customer a certain amount of power and responsibilities, and "gains his awareness and understanding of the problems it face" (Thompson and McEwen, 1958: 28).

As interesting as this literature on customer participation may be, only a few contributions give insight about the way the customer actually influences the organizational activities of the firm. All the same, not much research analyzes how to mobilize the customer in order to increase the firm's margin. As a consequence, the third part of this paper proposes a conceptual model of what we call Customer-Integrated Business Model, i.e. a business model that integrates the customer.

3. THEORIZING CUSTOMER-INTEGRATED BUSINESS MODELS

The literature on customer participation helps us to understand the socialization process of the consumer and the various inputs that he may yield to help a given firm. Thus, the combination of the lessons from the services marketing and management literature and the business models literature allows us to propose in this section a theoretical framework for Customer-Integrated Business Models. We illustrate it then with two "library" cases (where the main sources of information are publicly available).

3.1. Integrating the customer into the business model

More and more organizations have been giving an important role in their processes to the customer. For these organizations, the customer is not only the revenue yielder but also a resource on his own. In these cases, the role given to the clients may vary: producer, distributor, tester... We label CIBM (Customer-Integrated Business Models) the business models involving largely the customers.

Despite their diversity, CIBMs have common features. Particularly, they tend to build on a tighter coupling between the firm and the customer. Indeed, traditionally an organization and its customers are loosely coupled. According to Weick (1976), a system is considered to be loosely coupled when its components do not have the same goals, do not react to the same variables, do not share the same temporality and/or the same culture. In most common business models, customers have their own goals that rarely overlap with those of the firm. Organization and its customers are rarely influenced by the same variables and they do not have the same temporality.

To improve their coupling with customers, firms tend to study the market and to promote mutual adjustment with the clients' requirements or expectations. Thus, they seek to share the same temporality and the same concerns than their customers. In B-to-B, firms may even try to promote internally the values and beliefs of their main client.

On the contrary, CIBM focused firms try also to attract the customers to their value, beliefs, goals and temporality or at least to create a better alignment between their concerns and the customers' ones. Thus, in these BMs, the client becomes a resource that may be used in several ways by the organization.

To theorize the CIBMs, we have chosen to build on the RCOA model from Lecocq et al. (2006) and presented previously in this paper. The RCOA model has two advantages over

competing models. Firstly, it presents dynamic features and is very parsimonious in the meantime. Secondly, due to this parsimony, the customer has not been previously considered in its own in this model. For instance, while many authors locate customers out of the firm as a target of the value proposition (see section 1. of this article), the RCOA model merely identifies "resources", "offer" and "activities" as constituents of a BM and thus lets the possibility to treat the customer (or his inputs) as a specific kind of resources influencing and influenced by offer and organizational infrastructure (see Figure 5).

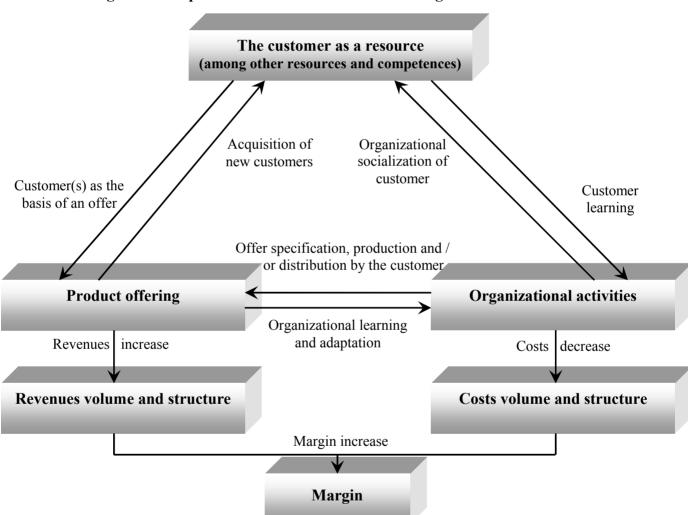


Figure 5: A representation of a full Customer-Integrated Business Model

We have previously shown how the customer could bring his inputs to participate in the conception, the production and / or the delivery of the firm's product. From a business model

perspective, this means that the customer may be considered as one particular resource (Gouthier and Schmidt, 2003) among the set of resources and competences of the firm.

If the customer is regarded as a resource, it means that we have to examine the way he influences the two other components of the RCOA model to which resources are related, i.e. product offering and organizational activities. Furthermore, it also means that we need to study its impact on the interrelations between these three main parts of the RCOA model. We illustrate this influence thanks to figure 5, which gives a representation of a full Customer-Integrated Business Model (CIBM), i.e. a business model that fully exploit the leverage of customer as a resource. In such a full CIBM, the customer as a resource is both a part of an offer (meaning that some specific customers or customers as a whole may be valued for money by the firm – as a community like in social network platforms or as an advertising target like in media) and a participant in the production or delivery process. For instance eBay is no doubt a full CIBM. Customers are both the suppliers and the buyers of the products, they assess individuals with whom they interact for a transaction (they assess the quality of the products) and they are also creating network externalities for the website as the more sellers/buyers are enrolled, the more new customers subscribed to buy or sell products. Thus in eBay, customer as a resource is both the basis of the offer in its own (eBay sells the access to a very large installed base of customers) and a contributor as a producer of the offer (for instance, the seller makes her own advert, takes pictures, appraises herself the price of the sold product and sends it herself through postage).

However, beyond the case of full CIBM, we have to remind that our aim in this paper is to propose a general framework of the customer participation within the business model theory and thus, a given CIBM may not include all the relationships identified in figure 5 and the virtuous circle it generates. Indeed, a CIBM may simply use customer as a producer (like Ikea) or simply use it as a network externalities generator to enhance the offer without any participation in the production process of the product or service. For instance, Lecocq and Demil (2006) have documented how the roleplaying game industry (selling books with the game rules of play) is a network sector characterized by strong network externalities mechanisms. Indeed, roleplaying game is a social activity in which three to six people around a table are playing a character in a given setting (science fiction, western, heroic fantasy...) to live 'virtual' adventures created by a storyteller called "gamemaster". Thus, in the roleplaying game industry, even if the players are most of time not contributing to write the rules of the game, they have interest to choose to buy and play to the most practiced games if they want to

find players sharing the knowledge of the same rules. As a consequence, most successful firms editing roleplaying games are valuing the size of their customers community, developing a CIBM without a necessary contribution of the customer itself to the production process of the products. Table 2 specifies the relationships between the components of the RCOA model in a CIBM.

Table 2: Customer's influence on the business model in a CIBM

Label and Place in the RCOA model	Note
Customer(s) as the basis of an offer (Resources and competences → product offering)	According to the RCOA model, resources and competences may be used to actually become an offer released to the market. The customer as a resource may become the basis of an offer in its own (e.g. social network offers, marketplace)
Acquisition of new customers (Product offering → Resources and competences)	The involvement of customers in specification, production and distribution (see <i>Organizational activities</i> \rightarrow <i>product offering</i>) allows to improve the targeting of the product or to increase the scope of the product delivery, leading to the acquisition of new customers for the firm. In the meantime, choosing to value customers as an offer (see <i>Resources and competences</i> \rightarrow <i>product offering</i>) allow the firm to benefit from network externalities, generating more and more adopters of the product or services.
Organizational socialization of the customer (Organizational activities → Resources and competences)	The use of customer organizational socialization techniques by a firm aims to transform a basic customer into a resource. These techniques enable the development of customer awareness, ability and willingness to participate, as well as determine the degree of her participation. Incentives mechanisms (to encourage the customer to participate) and integration mechanisms (to help the customer understand how to participate) are deployed. Thus, thanks to socialization techniques, a buyer becomes an "expert customer" and a better resource for the company.
Customer learning (Resources and competences → Organizational activities)	The incentives and integration mechanisms deployed by the firm to socialize the customer leads to a better knowledge of the activities and organization of this firm. The quality of the socialization will lead to more or less inputs investment from customers in the firm activities. By participating, the customer learns how to fit in the organizational activities and how to behave as she multiplies the interactions with the firm.
Offer specification, production and / or distribution (Organizational activities → Product offering)	Once the customer is integrated into the organizational activities, his various inputs may be used to participate either in the conception, the production and / or the delivery of the product. Note that the elapsed time between integration through socialization techniques and mobilization of the inputs may be very short in practice.
Organizational learning	Participation of the customer to the offer (as an offer in himself or as an

and adaptation

(Product offering Organizational activities)

innovator/producer/distributor) leads to a learning process at both an individual level (i.e. employees) and a collective level (i.e. firm). Thus by an interaction with market, firm may adapt its process to improve the socialization of the customers, whether to better use customers as a resource to generate network externalities, whether to favor customer learning and at the end increase the quality and volume of its production.

The core of our argument is that making customer a resource is the basis of a CIBM and that these business models may take various forms depending on the use of this resource by the firm. In a business model approach, a good CIBM should lead to an increased margin due to costs decrease and/or revenues increase.

For instance, Huston and Sakkab (2006) have documented the new innovation process at Procter & Gamble, involving external resources (individual inventors, partner firms...) for R&D. This new approach of innovation, based on open innovation (Chesbrough, 2003) leads Procter & Gamble to both cost savings and faster time to market. What has been demonstrated for the single innovation process seems to be generalized to the whole value chain. In CIBM, the mobilization of customers to innovate, test, produce and/or distribute products may lead to an important economy if the organization does not compensate the cost savings in operations by huge costs to generate incentives and facilitate the integration of the customers in the process (coordination and control costs). Beyond direct cost and time savings, a good CIBM may also reduce costs related to the risk. Indeed, in some CIBMs, customers may support an important part of the risk by taking in charge investment or R&D (for an example, see the case of MyMajorCompany.com developed below).

Concerning the revenue side, CIBMs has several effects. First, customers may give ideas to broaden the number and the kind of markets a product or service may address (extensiveness). Secondly, customers may suggest developing new offer or more may help to better adapt products and services to a specific market already served by the firm (intensiveness). Thirdly, valuing customers may generate network externalities and attract new paying customers (as in the case of professional social networks platforms like Viadeo in France) or generate new sources of revenues such as advertising (like in the press industry).

3.2. Examples of Customer-Integrated Business Models

Now that we have presented our conceptual model of Customer-Integrated Business-Models, we are going to exemplify its concrete application. Based on a documentary analysis realized thanks to secondary data, we study below the cases of two different companies: Build-A-Bear Workshop and www.mymajorcompany.com. We intentionally selected them in two different sectors. We also deliberately decided not to study two Internet-based companies, as we deem our model applicable to both online and offline activities.

3.2.1. Build-A-Bear Workshop®: build your own teddy bear!

Build-A-Bear Workshop (thereafter BBW) is an American firm created in October 1997 by Maxine Clark. It enables any customer to build a teddy bear through a specific 8-steps process of bear-making, so that in the end, the customer can go back home with his own personalized teddy bear. As explained on its website, BBW "was founded as an interactive retail entertainment experience based on the enduring love and friendship that connects us all to stuffed animals, and especially to our teddy bears". Thus, from its very beginning, BBW was thought of as integrating the customer, who is partly in charge of the creation of his experience: the process of creating his own stuffed bear (BBW's product offering). In other words, the customer will contribute to the production process. Prompting the customer to participate is undoubtedly a key factor of BBW's success, illustrated by indicators such as: about 400 outlets all over the world (as of September 2008), 2001 most-innovating retailer award (delivered by the US National Retail Federation), etc. The great development of the firm illustrates its ability to get new customers from the originality of its product offering.

On entering a BBW shop, a customer is welcomed by "master Bear Builder® associates", who share his experience with him through the 8 bear-making stations of the process. These associates are some of the resources BBW puts at the disposal of its customers as all the tools and materials the customers will find at each station to help them build their own bear. Master Bear Builder associates explain customer the bear-making path from step 1 to step 8, and assist them at each step, if needed. Indeed, the customer can also find many indications in the shop both about what he is supposed to do, and how he is supposed to do it during every step of the process. Furthermore, the customer may also be helped directly (by asking a question) or indirectly (simply by looking) by other customers, since many of them may be present at the same time. Accordingly, this help from the bear-builder or the other customers, and all this information are organizational socialization techniques used by BBW to integrate the customer into its organizational activities. They intend to increase his awareness (the

customer is made aware that he has no choice but to participate to get his bear), ability (he is "trained" by the bear-builder to learn how to co-produce his bear) and willingness (he is ready to participate because he can picture his future bear) to participate. They aim to clarify his role and the size of his participation too, since the customer is clearly explained what he has to do as opposed to the bear-builder. In return, the customer learns how to build the bear even before he actually enters the process, and throughout it, in order to maximize his experience and his effectiveness as a bear-maker. This learning will help him not only during his ongoing experience, but also for future identical experiences, since he will know what to do and how to behave. By the way, it is interesting to note that BBW also presents the whole process, and the content of the customer's "job" at each station, on its website. When connecting to the BBW's website, eight drawings present the order of the eight steps the customer has to go through in the shop, and clicking on them enables to have pictures and some explanations about what he has to do. This allows the customer to prepare his experience by understanding his role in advance, and then to integrate faster into BBW's organizational activities. The presentation of the whole process on the website also helps kids to present BBW to their friends and to attract new customers. Once the customer has understood the nature and content of his participation, he is ready to bring multiple inputs to produce and get the product offering. Most probably, these inputs are mental, physical, emotional, financial, temporal and behavioral, which we analyze in Table 3.

The socialization techniques deployed by the firm and the resulting involvement of the customers in the production process leads to costs decrease in personnel resources as only one or two Master Bear Builder associates may help a dozen kids to make their own teddy bear at the same time On the company website, the customer also learns how to extend the experience lived in the workshop thanks to the virtual world created recently by Build-A-Bear, called www.buildabearville.com. This virtual world allows continuing to involve buyers and constitute a basis to create a community of customers and generate network externalities to attract more and more teddy bears builders around the world. Thus, this demonstrates that even in traditional industries (toys), firms may create an installed base of customers and value it to generate positive network externalities, reinforcing the attractiveness of the product or services.

Table 3: Customer's inputs at Build-A-Bear Workshop

Nature of the inputs	Description
Mental	Cognitive efforts the customer has to do to virtually conceive his teddy bear and imagine what he wants it to look like.
Physical	Physical efforts demanded by the process of making his own teddy bear (pick up the stuff, the clothes, going from one station to another, etc.)
Emotional	All the thrill and excitement he can feel by participating in the creation of their own personalized stuffed animal. BBW offer is highly experiential.
Financial	The price of the teddy bear, including all the things the customer decided to add (kind of bear, kind of sound, clothes, etc.).
Temporal	The time spent by the customer to go to the shop, choose its teddy-bear, choose the sound, go from one station to another, etc.
Behavioral	Nature of the interpersonal interactions the customer has with master Bear-Builder associates and other customers sharing the experience.

Integrating the customer in its business model has enabled Build-A-Bear to develop very quickly since its creation. Indeed, between October 1997 and September 2008, the firm has opened 341 Company-owned stores in North America, the UK, Ireland and France, as well as 60 franchised stores in 14 countries, and sold 65 millions stuffed animals. Enabling the customers to participate in the conception and production of their own bear results in a very high rate of loyalty, since 60% of BBW business is generated by a returning customer (among whom 80% plan their visit in advance). Customers do enjoy the experience, since 90% of them rate it as the highest or second highest among the largest US Toy retailer. As a consequence, the firm has strong merchandise margins, and reduces markdowns at a minimum, because its customers are ready to pay for this experience. It has also delivered in 2007 its tenth consecutive year of total revenue growth, with net retail sales increasing by 7.6% (from about \$ 432 million to about \$ 468 million). This makes BBW the 10th largest US toy retailer, and it has "the second largest percent increase in sales of any of the Top 25 Toy Retailers". This clearly means that its business model generates higher revenues than many of its competitors.

3.2.2. www.mymajorcompany.com: produce the new artists you like!

Mymajorcompany.com (or MMC) is an internet-based company created in December 2007. Trying to take advantage of the great changes that have been shaking the music industry over the last few years, MMC invites people to become producers of new artists. Their website presents a shortlist of artists, and gives detailed information about each of them. All the artists have a public dedicated space on the website where they can describe themselves (with an additional opinion from MMC), give some news, upload their pictures, videos or, of course, music. They can also interact with their fans, be they their producers or not, thanks to discussion forums. Someone who likes an artist (or a group), and who wants to help to make him known can buy "shares" that make him become a producer of the artist, and accordingly a customer of MMC. Each share costs € 10, and it is not possible to buy more than 100 shares of the same artist, in order to favor the largest number of producers. The reason is that they are all as many marketers of the artist, since it is highly probable that, from the moment they decide to bet on him, these producers are going to do their best to make "their" artist famous. Once the total amount of money bet on an artist has reached € 70,000, then MMC records, produces and distributes his album (its total investment is about € 100,000, thanks to various kinds of subsidies) In return, each individual producer is paid 30% of MMC's net income generated by the artist she contributed to produce, proportionally to the amount of her financial participation.

Thus, MMC enables artists to meet financing, and is based on a business model that necessitates the participation of their customers who become producers of these artists. As a result, this business model is a full CIBM, where the customer is in the meantime involved in the production process (as an investor, as a "tester" of an artist, and as a marketer) and a network externalities generator as the more people have invested in an artist, the more this will attract new investors that may expect to generate an income on sales. This CIBM is very interesting as the installed base of customers having invested in an artist will promote themselves this artist and MMC and thus will increase the tendency to positive network externalities.

Yet, this business model is also very new. Consequently, it is necessary to clearly explain it to the potential producers so that they understand what they have to do, where and how they fit in the organizational activities, and to convince them to participate. Due to the very nature of the company, this organizational socialization essentially happens through MMC's website, which is filled with information about the model, the way customers can put money on the

artists, what benefits they may get, etc. An analysis of their homepage, and of some other pages of their website, is very helpful to understand how MMC endeavors to integrate the customer in its organizational activities. Due to the originality, newness and relative complexity of this business model, we deem essential to comprehensively analyze the way the customer is socialized in this case.

To begin with, the slogan "Music is your business" gives a clue about the importance of the customer, even though his role is not really explicit. Secondly, one of the main tabs on top of the homepage is called "MyMajorCompany". Clicking on it sends to another page that succinctly describes the vision and the objectives of the company, the way to become a MMC producer, and the way to become a MMC artist. One of the objectives is stated as follows: "implicate the customers in the selection and the success of artists. At MyMajorCompany, internet users become producers. By deciding to bet on their favorite artists, they select the ones whose albums will be produced, distributed and advertised. What's more, they participate in the strategic decisions of their development and get money from the sales of their supported artists". Still on the homepage, there is also a frame where the last bets are notified: the name of the individual producer is specified (with a hyperlink towards his profile), as are the amount spent and the name of the artist (with, once again, a hyperlink towards his profile). Below this frame is a flash animation that describes very clearly and simply the advantages of this business model for both artists and customers / producers. Thanks to all this information, the customer who arrives on the website should be able to understand quickly that his participation is needed to make the website work (i.e. he is aware of his participation), and that he may benefit from participating (i.e. this increases his willingness to participate). Moreover, the names of some MMC's well-known partners are mentioned on this homepage, in order to diminish the level of perceived risk the customer may feel, and which is likely to limit his motivation to bet on an artist. Finally, at the bottom of the homepage, there are links towards FAQ (Frequently Asked Questions), conditions of use, and a presentation of MMC's creators.

We studied the FAQ, and coded them according to the four different determinants of customer participation: awareness, ability, perceived role size and clarity, and willingness (see section 2). This proved to be very interesting insofar as among 16 questions, 4 aim to increase the ability of the customer to become a producer, 13 aim to increase his willingness to participate, 8 clarify his role and the size of his participation, whereas none of them would really increase

their awareness¹. Event though it could seem surprising to find such an imbalance, we deem that these results are not illogical. Firstly, it is not shocking to find no question aiming to increase the awareness of the customer. More precisely, all of the FAQ could have been coded "awareness", since each of them mentions customer participation. However, we decided that it would not be appropriate to code them like this, as we could not determine with our data when the customer really becomes aware of the need for his participation. Then, only 4 questions aimed to develop the ability of the customer. At first thought, we considered this was low compared to the number of questions trying to increase his motivation. But with hindsight, it can be easily understood: buying some shares is not harder than buying a book at Amazon, since it is merely necessary to register and create a profile, then listen to the music, and finally pay with a credit card. On the contrary, understanding how to participate in artistic decisions and realizing his own impact in the choice between two choruses, or of the color of a record sleeve, etc. is not this easy. So they are explained that they can access a producerexclusive VIP space on the website, managed by MMC and the artists. There, online discussions happen with producers, who can also express their preferences through votes systems. The latter are offered exclusive pictures, videos and songs in exchange of their participation.

Hence, MMC considers that the most important thing to convince its potential customers is to reassure them about what they have to do, how they have to do it, what their power on the record is exactly, what they may get from their participation, and finally the extent to which they may stop participating. Thus, all of this is accurately detailed in the conditions of use (even though legal reasons also oblige them to do to). In other words, it is absolutely necessary to explain as clearly as possible the role of the customer and the size of his participation, and also to increase his motivation to participate.

All of this means that in this kind of brand-new and original business model, customer learning is of crucial importance: as he learns about the way the website works, the way he is allowed to participate, what he can get from it, etc. Thus, when the customer has been reassured and explained that his risk is eventually limited, he is supposed to be all the more ready to participate. Furthermore, customers who have already participated in the website progressively learn how to be more efficient in future participations and promote the website. After this organizational socialization step, the customer is finally ready to participate, that is

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¹ Some FAQ were coded in two or three different categories, as proposed by Gibbs (2002), which explains why we exceed the total number of 16 questions

to say to bring his inputs to contribute to the product offering. In the case of MMC, it would seem that these inputs are mental, emotional, financial, temporal and behavioral (Table 4).

Table 4: Customer's inputs at Mymajorcompany.com

Nature of the inputs	Description
Mental	Cognitive efforts the customer has to do to appreciate the quality of the artist to select one (or more) to bet on, or think about the kind of artists a majority of people would be ready to pay for.
Emotional	All the thrill, excitement or disappointment the customer may feel when listening to the music to make their choice, to help in making artistic choices, as well as the fear (of losing) and hope (of winning money) resulting from his financial participation (and the joy or disappointment to get money when the artist is eventually produced).
Financial	The total amount of money the customer decides to bet on an artist when he buys shares.
Temporal	The time spent by the customer to listen to the music, read artists' profiles, chat online with other customers about artists, help to take artistic decisions, generate some buzz so that "his" artists become known
Behavioral	Nature of the online (and possibly offline) interactions the customer may have with MMC's employees.

Based on an analysis of customer participation and its results, our CIBM model supposes that organizational learning may follow. And that is exactly what happened at MMC. In fact, at the beginning, a customer could buy 700 shares of an artist, meaning that he could bet \in 7,000. Yet, a few months after the website opening, a major change occurred. In February 2008, the first MMC artist was produced and released to the market. 347 people invested a total of \in 70,000, from \in 10 to \in 6,010. The result was a good commercial success, since as of 11/13/2008, 120,000 copies were sold. This is very interesting for those who bought shares, since their initial investment is to be multiplied from 3.5 to 4.5. This has encouraged many people to join the website, hoping to get money in exchange of their participation. Therefore, many customers decided to bet a lot on one artist, with a pernicious outcome. Indeed, one objective of MMC is to rely on the largest number of producers to generate a lot of buzz about the artist on the web. To do so, they provide their customers many tools to advertise for the website or for their artist (scripts to insert a banner or a music player on a personal webpage, for instance). However, if many people buy a lot of shares of one artist, there are mechanically less people who can advertise for this artist (one single customer who buys \in

7,000 replaces 699 potential producers who would have bought \in 10 shares) and more risk on the sales of the copies as less customers have supported the artist before she has been produced. So on May 22 2008, MMC changed its rules, as its founders announced on the blog's website that the maximum number of shares of one artist a customer could buy would be 100 (hence \in 1,000). This was necessary, as their business model would have been at risk if they had not done that: the model does not only rely on financial participation from the customer, but on many other kinds of inputs, as we explained earlier. If MMC does not have enough producers for an artist, it has to promote him, hence increasing its costs, while its revenues are stable. This case also proves the importance of the community at MMC (blog and number of reactions on the blog). The advantages of the product offering make many people join the community. Indeed, since customers themselves are part of the offer, they also try and get new customers to join the community, so that it can increase the quality and quantity of the product offering.

At the financial level, this kind of business model is interesting for MMC, since it enables to finance an artist only when they actually have most of the money needed to record, produce and distribute him. This has a great positive impact on the cashflow of the firm. As for their promotional expenditures, they are reduced thanks to the buzz generated by their individual producers, as we mentioned previously. MMC also took advantage of its own model in terms of advertising: "giving the power" to their customers remains an original model in their industry, and many IT and music websites echoed the creation of the company. What's more, since their first artist has been very successful, they have also benefited from many television and radio reports, who explained the concept of the website, and the way people could become producers of their own favorite artists. To conclude, it is important to highlight that their margin is 50% of their revenues, with the other 50% split between the producers (30%) and the artists (20%, as opposed to a mere 8 or 9% when they sign in traditional labels). Thus, the MMC business model allows to drastically reduce production and marketing costs and to increase revenues of the company due to the number of consumers-producers promoting the artist. Moreover, this CIBM also reduces the risk supported by the firm as 70% of investment is made by co-producers (customers) and as the number of these co-producers guarantees that the artist will meet some success.

3.2.3. Limitations of CIBM

The above cases are but two of many examples of customer-integrated business models. They show that CIBM may be developed regardless of the sector of activity, or of the nature of the firm (online or "brick" company). Yet, it has to be remembered that integrating its customers in the BM is by no way a guarantee of success. Indeed, as we have explained earlier, CIBM present many advantages for both the firm (e.g. cost savings, profit maximization, innovation, etc.) and the customer (e.g. a better match between the offer and his needs and expectations, price cuts, time savings, etc.). However, as promising as they may be, CIBM do not come without any limitations, of which it is necessary to be aware of to maximize their effectiveness and efficiency. We identify four of them: inappropriate participation; customers' cognitive limitations; excessive pressure from the customers; and finally, the need of a clear sharing out of the benefits that result from customer participation among the firms and the customers.

Firstly, inappropriate participation from the customers may lead to a product offering failure, be it in its conception, production and / or delivery. This is why many authors insist on the need to specify most precisely the way the customer participates and the way the firm supervises its participation. To this extent, mapping the customer job may increase the potential offered by customer participation, while limiting its risks (Bettencourt and Ulwick, 2008). Adaptations also have to be made over time; otherwise the firm may encounter costs and revenues problems. For example, when retail banks developed their call-centers, they met strong resistances from their customers. In fact, these call-centers were supposed to deal with customers calls, which were previously dealt with by branches. A lot of customers considered this as a breach in their relationship with their branch advisor. As a consequence, some customers actually developed strategies to bypass the call-center, lying about the reason of their call, or refusing to give any information, so that they could talk directly to their branch advisor (Plé, 2006). In other words, they refused to provide the mental inputs that were necessary for the call-center to answer them.

Secondly, customers' cognitive limitations may also hinder the advantages of integrating the customer into the BM. For instance, asking customers to participate in the conception stage of a product may result in mere incremental innovations, and leave the door open for competitors. This is due to the fact that customers do not always know what they are talking about, or are unable to envision what the innovation could really bring them (Ulwick, 2002).

Thirdly, customers may make an excessive use of the power they now have, and display what some have called opportunistic behaviors (Plé, 2006). As an example, some hotel customers have tried to get a discount at the end of their stay, menacing to write a bad review on the hotel's website, or of one of its partners.

The fourth and final limitation we identify concerns the sharing out of the benefits that ensue from customer participation. From the moment that customers are aware of their participation, they want to be rewarded for it. This reward may be a price cut, a better experience, etc. As long as they consider that the firm merely uses them, but does not give them anything in exchange, they may be reluctant to participate, or their satisfaction may decrease (Lovelock and Young, 1979; Evans *et al.*, 2008).

Taking these limitations into account is of crucial importance, as they may have disastrous consequences on the firm's business model. If customer satisfaction declines, then it is highly probable that the level of revenues will drop. On the other hand, the firm's costs may rise because of inappropriate participation.

CONCLUSION

Based on the analysis of the business model's academic literature, this paper introduces the concept of Customer-Integrated Business Model (CIBM). Developing such a framework of a business model that takes the participation of the customer into account appears to be necessary, for both theoretical and empirical reasons. Indeed, more and more companies have been relying on their customers as co-producers of the product offering they release to the market. Yet, most of the studies about customer participation refer to the services marketing and management literature. Therefore, only a few of them focus on the way to generate higher margins thanks to a better integration of the customer as a resource, either by decreasing the firm's costs or by increasing its revenues (i.e. a business model approach).

Accordingly, this paper mobilized both literatures (about business models on the one hand, and services marketing and management on the other hand), to build the concept of CIBM, show what it is, the way it works and its diversity. We then illustrated it through the use of two case studies in two different sectors of activity. Consequently, this conceptual model enables to have a deeper and more precise understanding of how the customer fits in a business model, i.e. how a firm may leverage on its customers as resources. Moreover, it also proves to be all the more interesting that it brings in the possibility of a typology of CIBMs, depending on the manner the firm mobilizes its customers, on the intensity of their mobilization, and on the way the customer is used as a resource (co-producer, distributor, network externalities generator, etc.).

To conclude, however, it is important to note that our paper can only be interpreted in the light of certain limitations that are as many opportunities for further research. In particular, the "library" nature of our two case studies did not enable us to take into account psychological aspects that concern the encounter between employees and customers. Thus, neither could we take into account the actual content of the interactions between the customer and the firm's employees and infrastructures. In other words, field research is needed to explore more precisely how to create and improve the coupling between the firm and its customers, in order to increase the company's margin, i.e. the efficiency of CIBM.

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