

# Business model innovation and sources of value creation in low-income markets

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## Abstract

We explore different business ventures in low-income markets in order to understand the factors influencing business model innovation in this context. Grounded in the rich data obtained from multiple case study analyses and in the received theory in strategy in low-income markets and business models, we identified a set of contingency factors that permitted us to distinguish between isolated and interactive business models. *Isolated business models* widen its entrance into new markets by leveraging firm's current resources and capabilities for taking advantage of existing opportunities. *Interactive business models* require a firm to combine, integrate and leverage both internal resources with ecosystem's capabilities to create new business opportunities. Finally, we discuss the main implications on value creation from these business models.

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## Introduction

The aim of this paper is to understand how the context of low-income markets influences in business model configuration. Most of the previous work in this field stresses the need of developing new strategies and capabilities (London and Hart, 2004), and reshaping business models and business practices (Prahalad and Hammond, 2002; D'Andrea *et al.*, 2004) as a way to succeed in a dynamic and uncertain environment. In other words, innovation is considered an imperative element for entering into low-income markets. However, a theoretical explanation that explores the nature of business models in this context and the underlying factors that explain the type of innovation required has not been yet developed. By analyzing seven business ventures and according to the degree and characteristics of the interactions between the firm and the actors from the ecosystem, we propose to distinguish business models as isolated and interactive. A set of contingency factors that influence in the configuration process and business model effectiveness is offered. Furthermore, we discuss the implications on value creation from these business models.

The rise of relevance of the so-called Base of the Pyramid (BOP) market activities (Prahalad, 2004) requires further

research on this topic to better understand how business models in low-income markets can be profitable while generating social value. We consider the BOP as the socioeconomic demographic segment that live with less than 8 dollars a day – in purchasing power parity (Hammond *et al.*, 2007). In this paper we mainly refer to this segment as low-income markets.

The previous work in this discipline has positively contributed to raise awareness on the opportunities to create wealth in deprived areas and to a greater understanding of the unique features of strategy in low-income markets. However, the analysis of business models has been done without a consistent conceptual framework and has even been confused with business strategy (Yip, 2004; Shafer *et al.*, 2005). As a result, there is a lack of academic consensus on the elements determining a superior business model and the underlying factors influencing the degree of business model innovation in low-income markets.

We try to fill this theoretical gap by using the business model as a unit of analysis employing the conceptual framework proposed by Casadesus-Masanell and Ricart (2007, 2010). Strategic management has begun to consider business model as a determinant factor in the firm's

performance and value creation process (Casadesus-Masanell and Ricart, 2007; Zott and Amit, 2007, 2008). Business model is an old concept widely used and many times mostly undefined, but the interest on it has risen exponentially in the last decade. This growing interest can be explained largely by the impact of globalization, deregulation and advances in Information and Communication Technologies (ICTs). In fact, scholars and practitioners argue that the ability to take advantage of these structural changes by innovating in business models can explain firm's current and future competitiveness (IBM, 2006, 2008).

By using the business model as unit of analysis and analytical lens, we seek to understand in which way business model at the BOP differs from those in developed economies and how companies can create value in this market. Thus, we aim to contribute to the current debate on business model innovation from a perspective that permits to systematically observe the set of interactions performed in the firm's business activities. This aspect is especially critical in low-income markets because the firm's ecosystem can have a decisive influence on the business model configuration.

We begin by reviewing business model theory and reasoning out its applicability to the study of strategy in low-income markets. Then we explain the multiple-case inductive strategy used in this study. Next, we present our results and describe the different factors influencing business model configuration in low-income markets. Finally, we discuss the main implications on value creation from these business models.

### Theory of business models

Business model is clearly an emergent concept (Ghaziani and Ventresca, 2002) although it has been nearly absent from the academic perspective since recent years. In fact, the academic community is currently debating the differences between the notions of business model and strategy (e.g., Casadesus-Masanell and Ricart, 2010; Teece, 2010).

On one hand, strategy can be considered a high-order choice that implies choosing a particular business model through which the firm will compete in the marketplace. As Porter states: 'strategy is the creation of a unique and valuable position, involving a different set of activities' (Porter, 1996: 68). On the other hand, business models are the reflection of the firm's strategy and refer to the logic of the firm, the way it operates and how it creates value for its stakeholders (Baden-Fuller *et al.*, 2010). As we can see, both concepts have some similarities and strategy coincides with business models when there are no contingencies on which to base the choice of business model. As Casadesus-Masanell and Ricart state: 'the substantive difference between strategy and business model arises when the firm's plan of action calls for modifications to the business model when particular contingencies take place' (2010: 205).

Initial definitions of business models were quite broad and vague. For instance, Magretta (2002) defined business models as 'stories that explain how enterprises work'. Implicitly, her idea is that a business model is about how an organization earns money by addressing how it identifies

and creates value for customers, and how it captures some of this value as its profit in the process.

The recent work of Amit and Zott (2001) and Zott and Amit (2007, 2008) has provided a sound theoretical ground and more precise definition of business model. Drawing from different theories on value creation (specifically value chain analysis, Schumpeterian innovation, resource-based-view of the firm, strategic networks and transaction cost economics), and focusing on the e-business phenomenon, Amit and Zott (2001) propose to use 'business model' as unit of analysis. Their definition of business model is as follows: 'A business model depicts the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities' (Amit and Zott, 2001: 511). That is, 'a business model elucidates how an enterprise works with those external stakeholders with whom it engages in economic exchanges in order to create value for all involved parties' (Zott and Amit, 2007: 181). However, the construct on business model defined by Amit and Zott is quite narrow as it focuses on e-business.

Amit and Zott's business model definition fits into the strand of normative definitions, which imply that business models have to consider certain aspects. For example, Johnson *et al.* (2008) argue that business models consist of four elements: a customer value proposition, a profit formula, key resources and key processes.

To this respect, Shafer *et al.* (2005) developed an affinity diagram to identify four major categories common to all or most relevant definitions of business models: strategic choices, creating value, capturing value and the value network. According to these results, the *choices* made by management on how the organization must operate are an important component of business models. Choices must be connected to value creation and value capture. And just as causes have effects in the physical world, management choices have *consequences*. Following this logic, Casadesus-Masanell and Ricart (2007, 2010) propose the following definition of business model: *a business model consists of: (1) a set of choices and (2) the set of consequences derived from those choices (op. cit.: 3)*. Sometimes, in addition to choices yielding consequences, consequences enable choices. In this case, the dynamics of the business model generates feedback loops. Feedback loops can be of two types: virtuous cycles and vicious cycles. Virtuous cycles are feedback loops that in every iteration strengthen the value of some components of the model.

### Business model evaluation and representation

Business models must be represented for being analyzed and evaluated. A useful way to represent business models is by means of causal loop diagrams (Baum and Singh, 1994): choices and consequences linked by arrows representing causality. In sum, Casadesus-Masanell and Ricart suggest distinguishing among three elements when representing business models: choices, consequences and theories (see Table 1). There are three types of choices: policies, assets, and governance of those policies and assets. Consequences, on the other hand, are classified into either flexible or rigid.

For evaluating business models in isolation, Casadesus-Masanell and Ricart (2007) propose the following set of

**Table 1** Elements for representing business models

<i>Elements</i>	<i>Definition</i>
<i>Choices</i>	
Policies	Courses of action adopted by the firm regarding all aspects of its operation (e.g., high investment on R&D, brand building, etc.)
Assets	Physical and tangible resources (e.g., manufacturing facilities, logistical platforms, communication systems, etc.)
Governance	Structure of contractual arrangements that confer decision rights regarding policies or assets (e.g., leasing contracts, etc.)
<i>Consequences</i>	
Flexible	Sensitive to the choices that generate it (e.g., large volume is a consequence of a policy of low prices. If the policy changes to high prices, volume is likely to fall rapidly)
Rigid	Those that not change rapidly to the choices that generate it (e.g., reputation is a consequence of a set of choices that permits to obtain this intangible asset over time)
<i>Theories</i>	Suppositions on how choices and consequences are related (e.g., high R&D investment leads to innovative products)

Source: Casadesus-Masanell and Ricart (2007).

criteria: (1) *alignment to goal*, which refers to business model choices delivering consequences that move the organization towards achieving its objectives; (2) *reinforcement*, which refers to choices complementing each other well; (3) *virtuousness*, alludes to the presence of virtuous cycles (positive feedback loops) that help a business model to gain strength over time; and (4) *robustness*, which refers to the ability of the business model to sustain its effectiveness over time (note that the existence of rigid consequences that speed up virtuous cycles represents a barrier to imitation).

Finally, it is important to consider business model's interactions. Two different business models are interdependent if they are connected (i.e., they share some of their consequences). In this case, the firm's performance not only depends on its own actions, but also on the actions performed by some other organization. Interactions can be either tactical – organizations affecting each other by acting within the boundaries set by their business model – or strategic – organizations affecting each other by modifying their own business models.

Interdependences may be positive or negative. Two business models may reinforce each other (cooperation) and help another to 'work better' or detract from each other (competition). The intensity of interdependencies is an endogenous characteristic of the business model because it depends on executive managers' choices. In this sense, a firm can seek to increase its interdependency with other actors if these interactions strengthen its competitive position (Brandenburger and Nalebuff, 1996). On the contrary, a firm can reduce its interdependency with a competitor moving to 'blue oceans' (Kim and Mauborgne, 2005), where they do not share the consequences of their business models.

#### Applying business model theory to low-income markets

Two main reasons make particularly appropriate the use of the business model construct proposed by Casadesus-Masanell and Ricart (2007) for doing research in business

strategy in low-income markets. First, by analyzing the nature of the interdependencies developed by the business model, it is possible to examine the value created for all the actors involved in the business model. In other words, we can analyze the impact of the business model onto the ecosystem, which is commonly defined as a socioeconomic community in which different agents interact and co-evolve in order to develop a specific venture in a concrete space (Moore, 1996). Accordingly, extending the traditional concept of value creation through the analysis of interactions is a key issue in low-income markets, where it is commonly highlighted the need of achieving common benefits for all the parties involved through partnerships with formal and informal partners (Hart and Sharma, 2004; London and Hart, 2004; Seelos and Mair, 2007).

Second, the *dynamic nature* of business models eases the analysis of choices and consequences over time and permits to understand under what conditions the dynamics of these relationships can end up creating virtuous cycles. This is especially critical in low-income markets due to the inherent uncertainty and dynamism of these markets, which make difficult to understand and foresee the cause-effects relationships and its impact on value creation (Prahalad and Hart, 2002; Sirmon *et al.*, 2007).

In sum, the perspective based on business models emphasizes the importance of interdependencies in the firm's performance and productivity. This framework allows, on the one hand, understanding how the ecosystem of low-income markets can alter the nature of business model choices and consequences. On the other hand, it is also relevant for understanding how business model choices can influence the ecosystem's behavior. All these aspects can lead us to a better knowledge of the sources of value creation in low-income markets.

#### Data and methods

Because business in low-income markets are a complex social phenomenon with multiple players involved and no

clearly evident boundaries to its context, a qualitative approach seems to be appropriated to answer the proposed research questions (Yin, 1994). Qualitative research, rather than traditional quantitative empirical tools, is particularly useful for exploring implicit assumptions and examining new relationships, abstract concepts and operational definitions (Bettis, 1991; Weick, 1996). Also, a lack of prior theorizing about a topic makes the inductive case study approach an appropriate choice of methodology for developing theory (Eisenhardt, 1989). According to Yin (1994), case studies are especially suitable when it is intended to understand contemporary complex social phenomena in its real-life context. Besides, this author states that case study research can have, among others, exploratory and explanatory applications. The research design based on multiple cases was designed for grounded theory building (Glaser and Strauss, 1967), mainly based on an ongoing comparison of the data and the theory and is especially useful in the early stages of research on a topic (Brown and Eisenhardt, 1997). The methodology fits with the intention of our study: first exploring *what* are the emerging characteristics of business models at low-income markets, and second explaining *how* companies can create value in these markets.

For our research project, we selected seven cases for further in-depth analysis. These cases were chosen because of their learning potential and rich diversity, essentials attributes when conducting an explorative research (Eisenhardt, 1989). These cases include five successful experiences (Amanco, CEMEX, Tetra Pak, Hindustan Unilever and Star,<sup>1</sup> a Spanish multinational competing in the food industry in 70 developing countries) and two failed ones (Nike and Philips India, which gave up their projects in the BOP after a period for testing their pilot projects). In this paper, the results and analysis are centered on the Star and Amanco's ventures, as they are paradigmatic cases of the different nature of the business models proposed. However, a brief description of each case and its main features is included in the Appendix.

A variety of data sources were used to collect the information from these companies: case studies, public reports on companies' web pages, internal documents related to the initiatives being examined and articles from specialized media (see Table 2). Most importantly, we also conducted semi-structured interviews with executives directly involved in the low-income ventures. We undertook a total of 28 interviews that lasted from 60 to 90 min. Typical key respondents were project directors or country

**Table 2** Data sources and sample cases

Case	Archival documentation	Interviews and seminars
Star	<ul style="list-style-type: none"> <li>• Research case of Star (Sánchez, 2009).</li> <li>• Company documentation on business activities in Africa (internal documentation).</li> <li>• Business news : El Exportador (<i>ICEX magazine</i>, February 2002), Expansión Directo (February 2003).</li> </ul>	<ul style="list-style-type: none"> <li>• Three personal interviews: Star general manager, Star manager in China and Star manager in Kenya.</li> <li>• One phone interview: Star manager in Russia.</li> </ul>
Amanco Guatemala	<ul style="list-style-type: none"> <li>• Business case : « Grupo Nueva: proyecto Todos Ganamos » (Sánchez and Rodríguez, 2005).</li> <li>• Company documentation (reports, videos and presentations) about Amanco's project: <i>Comunidades agrícolas sostenibles al alcance de un mundo globalizado</i> (internal documentation)</li> <li>• Action plan for replicating the project in Brazil and Mexico (internal documentaion).</li> <li>• Amanco's report : 'Developing new business opportunities in the low-income segment' (public report).</li> <li>• WBCSD newsletter: 'A new frontier in responsibility', November 2004.</li> <li>• Grupo Nueva's Sustainability reports (2004 and 2005) (www.gruponueva.com).</li> </ul>	<ul style="list-style-type: none"> <li>• Field trip to Guatemala (May 2005).</li> <li>• Seven personal interviews to different managers of Amanco Guatemala participating in the project « Todos Ganamos ».</li> <li>• Six personal interviews to different partners involved in the project (Opcion-Aj Ticonel, cooperative Siesa, cooperative Tecún-Uman and individual farmers).</li> <li>• One video conference with Amanco's Corporate Communication Vice-president (Miguel Martí), and Social and Environmental Vice-president (M<sup>a</sup> Emilia Correa).</li> <li>• One phone interview with Andreas Eggenberg, Amanco's general manager in Guatemala.</li> </ul>
Hindustan Unilever Ltd.	<ul style="list-style-type: none"> <li>• Business case: 'Hindustan Lever Re-Invents the Wheel', Ellison <i>et al.</i>, 2003).</li> <li>• Rekha Balu, 'Strategic Innovation: Hindustan Lever', Fast Company, LLC.</li> <li>• The Complex Business of Serving the Poor: Insights from Unilever's Project Shakti in India (Rangan <i>et al.</i>, 2005).</li> <li>• Sustainability reports (www.unilever.com).</li> </ul>	<ul style="list-style-type: none"> <li>• Presentation of Rohit Rajan, Market Development Project of Hindustan Lever, in the Global Poverty Conference held in Harvard Business School in 2005.</li> </ul>

Table 2 (Continued)

Case	Archival documentation	Interviews and seminars
	<ul style="list-style-type: none"> <li>• Company documentation on corporate strategy in low-income markets (internal documentation).</li> <li>• Shakti project website.</li> </ul>	
Nike	<ul style="list-style-type: none"> <li>• Business case and teaching note: ‘Expanding the Playing Field: Nike’s The World Shoe Project’ (McDonald <i>et al.</i>, 2004).</li> <li>• Sustainability reports.</li> </ul>	
CEMEX	<ul style="list-style-type: none"> <li>• Business case : « Patrimonio Hoy ». (Miroslava López and Arenas Ballester, 2003).</li> <li>• Patrimonio Hoy: A Groundbreaking Corporate Program to Alleviate Mexico’s Housing Program (Segel and Meghji, 2005).</li> <li>• Sustainability reports.</li> <li>• Website: <a href="http://www.patrimoniohoy.com">www.patrimoniohoy.com</a>.</li> <li>• Softec, ‘Mexican Housing Overview 2005’.</li> </ul>	<ul style="list-style-type: none"> <li>• One personal interview with Israel Moreno, manager of Patrimonio Hoy project.</li> <li>• Presentation of Israel Moreno in the « The role of the firm in the 21st century » conference, held in Barcelona (2004).</li> </ul>
Tetra Pak	<ul style="list-style-type: none"> <li>• Research case of Tetra Pak (Sánchez, 2009).</li> <li>• Company documentation on the program for food and development and product strategies for emerging markets (internal documentation).</li> <li>• Tetra Pak Food for Development Office’s newsletter.</li> <li>• Website of Tetra Pak Food for Development Office (<a href="http://www.tetrapak.com/ffdo">www.tetrapak.com/ffdo</a>).</li> <li>• Annual and environmental reports.</li> </ul>	<ul style="list-style-type: none"> <li>• One personal interview with Jaime Santafé, general manager of Tetra Pak in Spain.</li> <li>• One phone interview with Peter Salmon, Business Development TFA.</li> <li>• Presentation of Nicolas Schreiber, CEO of Tetra Pak, at IESE Business School, 19 March 2004.</li> </ul>
Philips India	<ul style="list-style-type: none"> <li>• Research case of DISHA (Sánchez, 2009).</li> <li>• Annual reports of Philips India.</li> <li>• Sustainability reports of Philips.</li> <li>• Company documentation on DISHA’s project (internal documentation).</li> <li>• Apollo Hospital’s documentation on DISHA’s project (DISHA’s partner).</li> <li>• Presentation of DISHA project from DHAN Foundation (DISHA’s partner).</li> <li>• Philips website.</li> <li>• ACNielsen ORG-MARG market research : <i>Feasibility Study on Diagnostic Health Care Services in Rural Areas of Gujarat &amp; Tamil Nadu</i>.</li> <li>• Chennai Online, <i>DISHA project launched in Madurai</i>.</li> <li>• Business case: <i>Bringing healthcare services to rural communities</i>, WBCSD, 2005.</li> </ul>	<ul style="list-style-type: none"> <li>• Field trip to Madurai, India (August 2005).</li> <li>• Two personal interviews to DISHA managers.</li> <li>• Three personal interviews to DISHA’s partners (Apollo Hospitals and DHAN Foundation).</li> <li>• One phone interview to DISHA general manager.</li> </ul>

managers, who provided insight on the overall initiative. In the case of Amanco, Tetra Pak and Star, we were also able to interview senior managers who provided a more complete view of the initiative’s impact on company strategy and performance.

Besides its learning potential and diversity, these cases were selected because they enabled us to predict similar results (successful ventures) and produce contrasting results (failed venture) (Yin, 1994). In order to obtain

consistent and comparable results, we represented each of these ventures using the conceptual framework for business models proposed by Casadesus-Masanell and Ricart (2007, 2010) and compared them with its respective business model in high-income markets. Final results were obtained through cross-case analysis, which is especially useful to deepen understanding and explanation (Glaser and Strauss, 1967) and enhance ‘analytical generalization’ (Miles and Huberman, 1994; Yin, 1994).

### Business models in low-income markets

In this section, we propose a classification of business models according to their different pattern of entry into low-income markets. According to our analysis, two types of business models were identified: isolated and interactive business models.<sup>2</sup> The former are characterized by an exploitation strategy, which leverages the firm's own resources and capabilities for seeking efficiency. The latter are characterized by an exploration strategy, which leverages on external resources and fosters learning and innovation processes. Our distinction between isolated and interactive business models is illustrated through the cases of Star and Amanco, respectively. Using these examples, we examine the characteristics of the interdependencies between these business models and the ecosystem. Finally, we conclude by analyzing the different sources and mechanisms of value creation derived from these business models.

#### Isolated business model: The case of Star

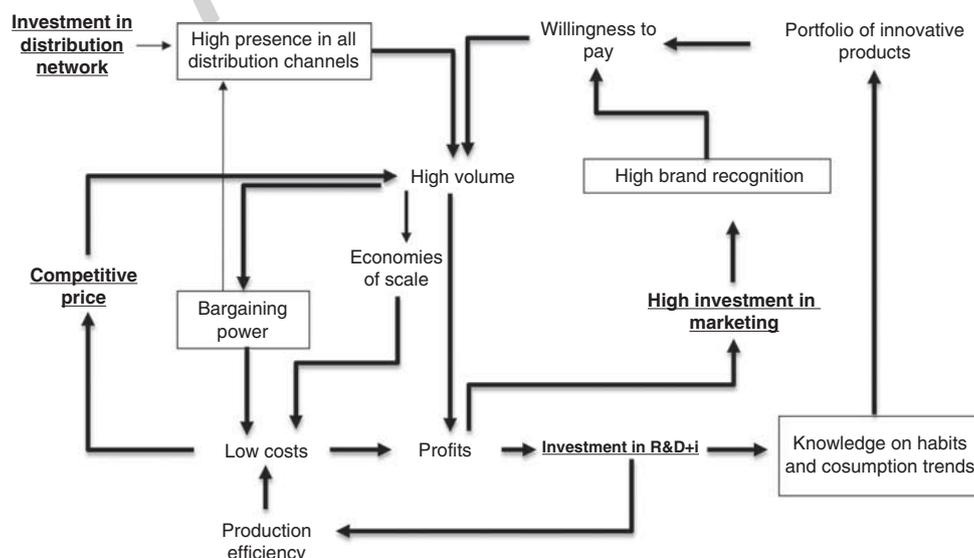
Star is a family-owned multinational that produces and markets culinary products on more than 70 countries with leading brands in segments such as broth, dry soups, ready meals and other specialties. As any other company competing in the fast moving consumer goods, achieving a high volume of sales is critical for maintaining low manufacturing costs and be competitive in the market. For this reason, Star has a wide international presence in both developed and developing countries. In each country where it operates, Star stands among the three leading companies and has a global market share of 16–17%. Star's traditional business model was based in four main choices: high investment in R + D + I, high investment in marketing, building a wide distribution network and fixing competitive prices. As a consequence of these choices, Star gets proper market intelligence to develop a portfolio of innovative products, obtains high brand recognition and has high market share that permits the firm to get a significant

bargaining power for dealing with distributors. At the same time, industrial know-how and economies of scales deliver cost-efficiency production systems (see Figure 1 for a complete representation of Star business model).

When entering into new markets, Star seeks local partners with a wide distribution network that permits the firm to have a leading market share in the country (when the entrance implies a greenfield investment, Star invests in building a distribution network along with current distributors). Typical local partners for Star are licensees and local distributors that import Star's products and sell them in an exclusive basis. Some of these distributors have become over time also local manufacturers. In this case, Star exports the raw material from Spain to the local partner, whom in turn compresses and packages the product, mainly bouillon cubes.

As we can see in Figure 2, the logic of Star business model in developing countries is the same than in traditional markets. Nevertheless, some tactical adaptations (i.e., adapted choices) are required to develop its activity. For improving the efficiency of the manufacturing process, Star offers technical assistance, transfers industrial know-how and performs training to local staff to improve the efficiency. Star also supports the local partner by performing market research activities to develop new formulations adapted to local tastes. Likely, branding, advertising techniques and promotional campaigns are consistent with the host country traditions. All these practices have conferred to Star's brands a flavor of 'local firm'.

Our analysis has distinguished two main factors that help to understand whether an isolated business model can be more effective: the *level of munificence* of the ecosystem and its *level of dynamism*. By munificence we refer to the degree of available resources in the context (Sutcliffe and Huber, 1998). By dynamism we allude to the degree of market uncertainty. In the context of business models, this uncertainty is related to the capacity of predicting the consequences from choices adopted by managers (in Table A2 of the Appendix we offer a more detailed analysis



**Figure 1** Star traditional business model.

Bold and underlined text = Choices; Regular box = Rigid consequence; Plain text = Flexible consequences; Bold line = Virtuous circle.



economies is high enough to acquire existing resources and capabilities through partnerships from the ecosystem, but they require a substantive adaptation to reach higher levels of efficiency.

In isolated business models some of the value chain activities can also be performed by fringe or non-traditional partners. Then, hybrid value chains are configured (Budinich *et al.*, 2007), permitting the firm to strengthen those weaknesses identified in the value chain. These alliances are more common in the extremes of the value chain (i.e., R&D processes, delivery and sales) (Keating and Schmidt, 2008). While business models in these cases present some changes, they are mainly operative (i.e., affecting only an activity of the value chain) and they do not imply a business model transformation.

In sum, isolated business models act as *efficiency seekers* and thus attempt to take advantage of differences in factor productivity endowments. In this case, the entrance into low-income markets responds to a growth strategy based on the possibilities of increasing the firm's global market share through product adaptation and optimization of business processes. Therefore, the firm *individually* replicates and extends its traditional business model, adapting it to the ecosystem's contextual conditions with the aim of achieving the highest possible efficiency in its operations. Then, the firm's internal resources are the main source of value creation (Barney, 1991) and the control of critical assets and capabilities of the organizations is essential to maintain and sustain competitive advantage (Tallman, 1992). Isolated business models consider the new markets for low-income population as an opportunity to increase the sales of its traditional products, action that some have called in the context of the emerging economies as 'corporate imperialism' (Prahalad and Lieberthal, 1998a).

#### Interactive business models: The case of Amanco Guatemala

Amanco is a leading company in Latin America in manufacturing and marketing solutions for water and sewage systems as well as light construction systems. All their products are distributed in 29 countries across Latin America and the Caribbean. The traditional customers

of Amanco were mainly large state and public administrations, but in 2002 Julio Moura, CEO of Grupo Nueva,<sup>3</sup> decided to develop new business initiatives for low-income markets, aiming that 15% of total sales from Grupo Nueva came from this segment at 2015. In order to involve all the organization in this new initiative, the employees were invited to participate in a contest entitled 'Everybody wins: Imagining Unimaginable Businesses'. The winning project, called *Todos Ganamos* (everybody wins), was proposed by managers from Amanco Guatemala. The project's objective was to provide modern technological support, such as trickle irrigation, to the small Guatemalan farmer, increasing the quality and quantity of their crops.

In Guatemala, where agriculture is the main source of employment and income for 87% of Guatemalan's poor, producers depend on the natural rain cycle or use hoses and other short-term tools that reached extremely limited crop areas. As a consequence, productivity was low and annual production was limited to two annual yields. Besides, traditional crops, such as beans or corn, were prevalent; restricting their sales to domestic markets and generating a vicious cycle of subsistence income (Figure 3 represents the business model of the small farmers).

To dismantle the vicious cycle of subsistence income, Amanco had to impel the change of two farmers' choices for dismantling their vicious cycle of subsistence. First, farmers had to move from low use of technology to invest in irrigation technology; second, producers had to change traditional crops to new growings with more value-added (arable land is a choice – an asset – that could not be changed by Amanco). At the same time, as the market did not have the necessary resources to replicate Amanco's traditional business model, the firm had to adopt different choices to activate farmer's choices. First, Amanco designed a drip irrigation system with the aim of improving the irrigation process of small farmers. For encouraging the investment in this new technology, Amanco reached agreements with microfinance institutions to favor lending to small farmers. Besides, because the affordability of its product also depended on the expected income of small farmers, Amanco also sought to work with the cooperatives to ensure that increased production was sold in export

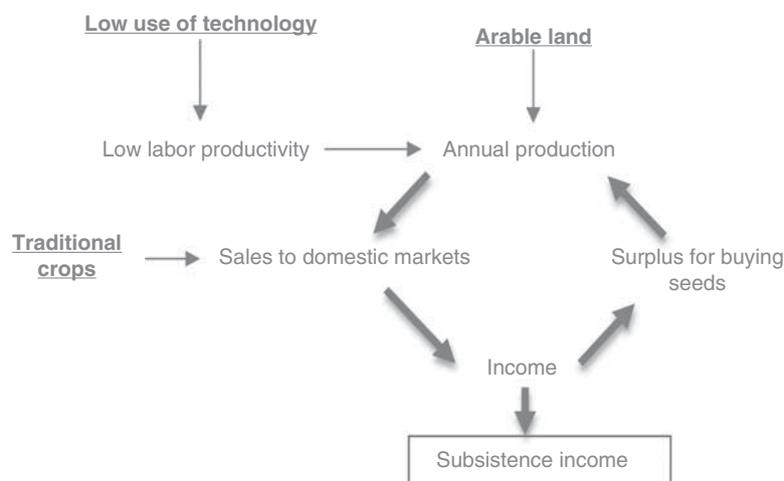


Figure 3 Business model of small farmers.





motivation inherent to interactive business model in this context: gaining a strong competitive position to permit firm's growth; and having a transformational impact in society. In this sense, the types of resources that are mobilized to create the ecosystem are both capital and social resources.

Microcredit institutions or saving schemes are necessary for providing the capital flow to low-income communities. But microcredit alone is not sufficient. Microcredit must be surrounded with other activities that require social resources for offering capacity-building activities, connecting informal activities to market channels, accessing to scattered and distant communities or gaining trust among poor people. Commonly, this type of resources can be provided by social actors who are locally based and have a long-lasting tradition in working with low-income communities. Therefore, economic and socially oriented incentives must be aligned to involve all the diverse partners.

The case of Amanco shows how the reconfiguration of the business model involves the establishment of co-managed value chains through a network of alliances. This improves the conditions of the ecosystem due to an increase in the availability of resources and the complementarities between the firm's core competences with those from the ecosystem. However, at the same time, making these choices represent a loss of control over the activities of the value chain. Therefore, it is essential to establish coordinated processes based on cooperation (Reficco and Vernis, 2010), self-government (Dyer and Singh, 1998) and transparent transaction governance (Prahalad, 2004) for establishing trust relationships that enhance compliance with commitments and contracts and reduce the uncertainty and the transaction costs associated with these markets.

Being the cornerstone of the ecosystem can confer competitive advantages because the firm can create the ecosystem according to its own capacities and strengths (Iansiti and Levien, 2004). However, this leadership also implies some risks, because it normally requires ongoing investments over time and difficulties related to the implementation of innovation processes, the launching of innovative products and the coordination of actors can emerge (Adner, 2006).

In conclusion, interactive business models are mainly focused on *learning and innovation* and competitive advantage comes from the right combination and proper governance of firm's resources and capabilities with those from the ecosystem. Usually, leveraging external resources in the firm's operations requires cooperative processes. Therefore, interactive business models are largely crafted by the development of partnerships. In this case, the development of a set of relational capabilities is a critical function of these business models (London and Hart, 2004). In the end, the main motivation of the firm in this scenario is to create new sources of revenues through innovative products and business models while contributing to enhance the living conditions of the poor. As a result, the logic of these business models is given by the interaction between two or more constituents in a way that allows the generation of new opportunities and whose overall effect on value creation is greater than the sum of individual effects.

The examples from our sample also allowed us to understand that the theories of interactive business models are less defined and clear (they are less known and have more unpredictable effects) and hence the uncertainty inherent in these business models is greater. This outcome is consistent with exploration strategy processes, which specifically focuses on learning and knowledge acquisition for reducing the uncertainty and risk of the initiative. The uncertainties will be higher as the company moves away from its core business and does not have the necessary resources to carry out its projects.

## Discussion

### Analysis of business models interdependencies

In isolated business models, interdependencies with competitors are dominant. They mainly respond to tactical changes for achieving a greater market share. For this reason, we can say that these interdependencies are negative, because business models subtract value from each other. In these cases, competitors are decisive actors in the configuration of the business model and in the market entry decision. For instance, Star decides to enter into a new country only if it can hold a dominant position. The intensity of interdependence with the competitors is high, while with other complementary players is moderate, except in the event that an agreement or alliance is made with a partner or social group to strengthen the value chain. Despite the importance of competition, it is also worth noting that in low-income markets interdependencies sometimes occur with 'no consumption' (Prahalad and Hart, 2002). In this case, the absence or the inefficient supply of a product or service can lead to the existence of 'blue oceans', markets with a lower initial level of competition (Kim and Mauborgne, 2005).

Interactive business models tend to have an increased number of interdependencies with local and fringe actors, which not only participate in shaping the business model, but also are crucial for its dynamism. For instance, Amanco's virtuous cycles are intrinsically dependent of the dynamism of cooperative and farmers' virtuous cycles. In this case, the interdependencies between different actors are cooperative (business models are mutually reinforcing) and, therefore, we can say they are positive. This analysis confirms that innovation underlying interactive business models permits to create new business opportunities where there is less competitive interaction, also generating 'blue oceans' (Kim and Mauborgne, 2005). Table 3 summarizes these findings, highlighting the main differences between isolated and interactive business models.

In sum, while the entrepreneurial action in isolated business models is focused on identifying and exploiting the opportunity as soon as possible, in interactive business models the entrepreneurial is driven by the creation of opportunities through iterative learning processes with different partners and local actors. This result may be understood as a parallelism to the theory of discovery and creation in the entrepreneurial action (Alvarez and Barney, 2007).

Regarding the effects on the ecosystems, isolated business model contributes to incremental improvements due to the introduction of new technologies and more

Table 3 Business model interdependencies

	<i>Isolated business model</i>	<i>Interactive business model</i>
Main actors in the interdependencies	<ul style="list-style-type: none"> <li>• The competitors, either local or global, are influential actors in the business model configuration</li> </ul>	<ul style="list-style-type: none"> <li>• Fringe stakeholders are participative actors in the configuration and implementation of the business model</li> </ul>
Intensity of the interdependencies	<ul style="list-style-type: none"> <li>• High with competitors</li> <li>• Low with complementary actors</li> </ul>	<ul style="list-style-type: none"> <li>• Low with competitors</li> <li>• High with complementary actors</li> </ul>
Nature of the interdependencies	<ul style="list-style-type: none"> <li>• Negative – competitive character</li> </ul>	<ul style="list-style-type: none"> <li>• Positive – cooperative character</li> </ul>
Effects on the ecosystem	<ul style="list-style-type: none"> <li>• Incremental improvements due to more efficient systems of manufacturing and distribution</li> </ul>	<ul style="list-style-type: none"> <li>• Systemic changes due to the introduction of, or connection between, new actors, new technologies and new incentives that alter actors' behavior</li> <li>• Positive impact on development thanks to the interaction with fringe stakeholders and local partners</li> </ul>
Underlying behavior	<ul style="list-style-type: none"> <li>• The firm individually identifies and exploits the opportunity as fast as possible</li> <li>• Company choices are focused on activating as quick as possible the virtuous cycles of its own business model</li> </ul>	<ul style="list-style-type: none"> <li>• The firm creates the opportunity jointly with local actors and partners through an iterative learning process</li> <li>• Company choices are focused on activating the virtuous cycles from its partners as a mechanism to activate its own virtuous cycles</li> </ul>

Note: The part shaded in gray summarizes the consequences of the previous characteristics explained in the table.

efficient systems of manufacturing and distribution. This enables products' availability and affordability for low-income population. Interactive business models go beyond these benefits by inducing a systemic change in the ecosystem due to the inclusion of new actors (or connection between previously unconnected parties), technologies and incentives that can change behavioral patterns. The relationship between the firm and its stakeholders is more intense, something that permits to build trust, identify basic unmet needs and give adequate response to them. The higher implication of fringe stakeholders contributes to local capacity building and gives the firm more legitimacy and power to influence over local administrations.

### Sources of value creation in low-income markets

The logic of value creation in low-income markets depends on the nature of the business model. In the context of isolated business models, the company aims to increase *the efficiency of their production factors to reduce their costs* and fix the price below the consumer's willingness to pay. The choices of the firm aim to strengthen *the different virtuous circles of its own business model through innovative processes* (e.g., reverse reengineering, local supply-chains, etc.). Thus, the firm can reduce its cost structure and increase the volume of sales, generating economies of scale that feed the virtuous circle of lowering costs. This type of business models seem to be especially effective for selling simple products that do not require extending the value chain activities for offering complementary services.

Ultimately, the origin of earnings is due to the existence of superior and heterogeneous resources. These rents are known as Ricardian rents (Peteraf, 1993).

Interactive business models have a different logic of value creation. In this case, the company aims to generate innovations that increase the willingness to pay by enhancing the value created for and the capacity to pay of customers. This goal can only be achieved through a more complex process of exploration and learning in which the company must first identify the factors that hinder the spinning of virtuous cycles of their partners and customers. Once these factors have been identified, the firm must configure the mechanisms that allow the ignition of external virtuous cycles through the interaction with its own business model. Hence, the firm's choices are directed towards removing the barriers that prevent the socioeconomic development. As a result, a new combination and integration of resources and capabilities is required for developing new products, services and productive processes, and establishing new types of economic exchanges (Schumpeter, 1934; Eisenhardt and Martin, 2000). The rents created through innovative processes are known as Schumpeterian rents. Likely, due to the critical importance of relationships and partnerships, interactive business model enable the generation of relational rents (Dyer and Singh, 1998). Figure 5 graphically represents the different mechanisms of value creation in isolated and interactive business models.

The observed differences in business models have also particular implications for managerial practices. The ability to identify opportunities and exploit them rapidly will be

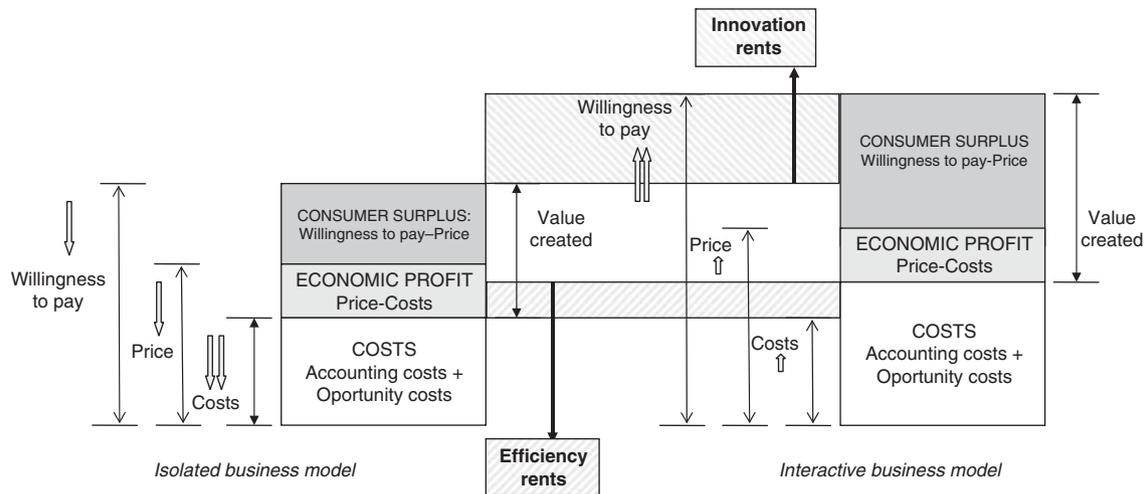


Figure 5 Sources of value creation in isolated and interactive business models.

critical in isolated business models. In this case, the firm should implement effective systems to develop market intelligence activities and have knowledge management systems for easing the transfer of know-how. Likely, ownership and governance structures should consider protecting the firm's assets, as they constitute the main source of competitive advantage. On the other side, firms implementing interactive business models should develop relational and connectivity capacities for identifying, integrating and combining external and internal resources in order to create new business opportunities. Thus, interactive business models would be required to have routines and management systems that enhances the understanding of the context and generates substantial learning and knowledge to co-develop innovations along with local actors (London and Hart, 2004).

At the same time, the nature of business models influences the type of *ex-ante* risk that should be faced by managers when entering into low-income markets. In isolated business models, as we have seen in Star, the firm uses its traditional assets and policies – choices – when implementing the business model into low-income markets. In this case, the *ex-ante* risk related to the design of the business model highly depends on the capacity of the ecosystem to support the expected consequences from the choices adopted by the firm. In order to minimize this risk, the company should perform an accurate assessment of its own capabilities and the ecosystem's current resources for evaluating if they are sufficient to develop the traditional activities from its value chain. Otherwise, as some of the failed ventures from our sample have shown, assuming that the theories of the business model (the assumptions about how choices and consequences are related) are always valid and predictable in any context is a risky assumption, especially in low-income markets.

The main risk for interactive business models is centered on the dependency of external actors for activating business model's virtuous cycles. From the case of Amanco it was clear that the company's success was absolutely dependant on its capacity to 'unlock' the producer's cycle of subsistence. But neither the firm nor the ecosystem had the formal resources to achieve this goal. For this reason, Amanco had to establish

partnerships with non-traditional partners (e.g., cooperatives and NGOs) to *co-create* these resources (i.e., access to credit, technical assistance and capacity building to small producers, shared sales force). These activities imply a loss of control over the activities of the value chain. Two main factors are critical for minimizing this risk. On one hand, cooperative governance systems need to be implemented through the establishment of aligned incentives among the different actors participating in the business model. On the other hand, the ability of being socially embedded allows the firm to acquire substantial learning, generate trust and perform more efficiently operative processes (Sánchez *et al.*, 2007). As we can infer, interactive business models require on-going investments for performing trial and error activities, as consequences from adopted choices are not well-known and are more unpredictable because they do not depend exclusively on firm's actions.

## Conclusion

The main constraint of isolated business models is the low willingness to pay of potential consumers, which drives firm's choices to the objective of *reducing costs*. To take advantage of this opportunity and gain greater efficiencies in its operations, the company refines and extends its own skills, capabilities and resources. Accordingly, firm's results are more predictable (March 1991). In this case, the benefits of low-income communities are linked to *consumption*, as they have the possibility of acquiring affordable goods. In contrast, interactive business models are mainly focused on *increasing the willingness to pay*, without forgetting cost restraints. In order to succeed, iterative learning and experimentation processes that combine firm's resources with assets and capabilities from the ecosystem are required. The expected result in this case is an innovative business model able to *increase income options* in the low-income segment while generating economic profits for the firm. Therefore, the benefit to local communities in this case goes beyond consumption, since it helps to meet broader social interests of those actors involved in the business model. In short, while isolated business models apply reverse engineering logic for achieving a cost

objective and creating the capacity to consume, interactive business models apply new engineering logic for changing the actors' behavior and creating the capacity to pay.

According to these results, a business model not only serves to exploit an opportunity, but may itself be part of the opportunity (Alvarez and Barney, 2007). Thus, the degree of innovation of a business model is a source of value creation (Amit and Zott, 2001). Moreover, we noted that social motivation can be an important source of innovation for the business model (Hart and Christensen, 2002; Prahalad, 2004).

In sum, there are different strategies when entering the low-income markets. However, creating an ecosystem that co-evolves with inputs from global and local partners, many of them located outside the formal economy, not only helps to improve socio-economic context, but also allows value creation and it is a source of a more sustainable competitive advantage than in the case of isolated business models (Hart and Sharma, 2004). Business models with a high degree of cooperative interdependences are especially convenient for this goal. While it is true that this scenario presents greater uncertainties, we have shown throughout this paper different success stories of how firms' efforts and creativity have been fully rewarded.

## Notes

- 1 Star is a fictitious name used for respecting firm's policy of confidentiality.
- 2 As it will be clear up in the descriptions of the cases, these two types of business models are not exclusive to emerging markets but the distinction and characteristics of each model are more relevant in such markets.
- 3 Grupo Nueva was a holding of companies formed by Amanco and Masisa at the moment of doing this research. In 2007, Amanco was sold to the Mexican firm Mexichem. The project of low-income markets initiated in Guatemala was further extended to Mexico.

## References

- Adner, R., 2006, "Match your innovation strategy to your innovation ecosystem". *Harvard Business Review*, 84: 98–107.
- Alvarez, S. A. and J. Barney, 2007, "Discovery and creation: Alternatives theories of entrepreneurial action". *Strategic Entrepreneurship Journal*, 1: 11–26.
- Amit, R. and C. Zott, 2001, "Value creation in e-business". *Strategic Management Journal*, 22: 493–520.
- Baden-Fuller, C., I. C. MacMillan, B. Demil and X. Lecocq's, 2010, "Business models as models (editorial)". *Long Range Planning*, 43(2–3): 143–145.
- Barney, J., 1991, "Firm resources and sustained competitive advantage". *Journal of Management*, 17(1): 99–120.
- Baum, J. A. C. and J. V. Singh, 1994, "Organizational hierarchies and evolutionary processes: Some reflections on a theory of organizational evolution". In J.V. Singh (ed.) *Evolutionary dynamics of organizations*. New York: Oxford University Press, pp: 3–20.
- Bettis, R. A., 1991, "Strategic management and the straightjacket: An editorial essay". *Organization Science*, 2: 315–319.
- Brandenburger, A. M. and B Nalebuff, 1996, *Co-opetition*. New York: Currency-Doubleday.
- Brown, S. L. and K. M. Eisenhardt, 1997, "The art of continuous change: Linking complexity theory and time-paced evolution in relentlessly shifting organizations". *Administrative Science Quarterly*, 42(1): 1–34.
- Budinich, V., M. Kimberly and S. Schmidt, 2007, "Hybrid value chains: Social innovations and development of the small farmer irrigation market in Mexico". In V.K. Rangan, J.A. Quelch and B. Barton (eds.) *Business solutions for the global poor*. San Francisco: Jossey-Bass, pp: 279–288.
- Casadesus-Masanell, R. and J. E. Ricart, 2007, *Competing through business models*. Working paper-713, IESE Business School, Barcelona. Forthcoming in G.B. Dagnino (ed.) 2011. *Handbook of research on competitive strategy*. Cheltenham, UK: Edward Elgar.
- Casadesus-Masanell, R. and J. E. Ricart, 2010, "From strategy to business models and onto tactics". *Long Range Planning*, 43(2–3): 195–215.
- D'Andrea, G., E. A. Stengel and A. Goebel-Krstelj, 2004, "6 truths about emerging-market consumers". *Strategy+Business*, Spring(34): 2–12.
- Dyer, J. H. and H. Singh, 1998, "The relational view: Cooperative strategy and sources of interorganizational competitive advantage". *Academy of Management Review*, 23(4): 660–679.
- Eisenhardt, K. M., 1989, "Building theories from case-study research". *Academy of Management Review*, 14: 532–550.
- Eisenhardt, K. M. and J. A. Martin, 2000, "Dynamic capabilities: What are they?" *Strategic Management Journal*, 21: 1105–1121.
- Ellison, B., D. Moller and M. A. Rodriguez, 2003, "Hindustan Lever re-invents the wheel". Case DG-1425-E. IESE Business School, Barcelona.
- Ghaziani, A. and M. J. Ventresca, 2002, *Discursive fields, boundary objects and the categorical structuring of discourse: Evidence from frame analysis of business models, 1975–2000*. Working paper, Kellogg School of Management, Evanston, IL.
- Glaser, B. G. and A. L. Strauss, 1967, *The discovery of grounded theory: Strategies of qualitative research*. London: Wiedenfield & Nicholson.
- Hammond, A., W. Kramer and R. Katz, (2007), *The next 4 billion*. Washington DC: World Resources Institute and International Finance Corporation.
- Hart, S. L. and C. M. Christensen, 2002, "The great leap – Driving innovation from the base of the pyramid". *Mit Sloan Management Review*, 44(1): 51–56.
- Hart, S. L. and S. Sharma, 2004, "Engaging fringe stakeholders for competitive imagination". *Academy of Management Executive*, 18(1): 7–18.
- Iansiti, M. and R. Levien, 2004, "Strategy as ecology". *Harvard Business Review*, 82: 68–78.
- IBM Global Business Services, 2006–2008, "The global CEO study 2006 and IBM Global Business Services". The Global CEO Study 2008, IBM Corporation.
- Johnson, M., C. Christensen and H. Kagermann, 2008, "Reinventing your business model". *Harvard Business Review*, 86(12): 57–68.
- Khanna, T. and K. Palepu, 1999, "Policy shocks, market intermediaries, and corporate strategy: The evolution of business groups in Chile and India". *Journal of Economics & Management Strategy*, 8(2): 271–310.
- Khanna, T. and K. Palepu, 2010, *Winning in emerging markets: A roadmap for strategy and execution*. Boston, MA: Harvard Business School Press.
- Keating, C. and T. Schmidt, 2008, "Opportunities and challenges for multinational corporations at the base of the pyramid". In P. Kandachar and M. Halme (eds.) *Sustainability challenges and solutions at the base of the pyramid*. Sheffield: Greenleaf Publishing, pp: 387–409.
- Kim, W. C. and R. Mauborgne, 2005, *Blue ocean strategy*. Boston, MA: Harvard Business School Press.
- London, T. and S. L. Hart, 2004, "Reinventing strategies for emerging markets: Beyond the transnational model". *Journal of International Business Studies*, 35: 350–370.
- Magretta, J., 2002, "Why business models matter". *Harvard Business Review*, 80: 86–92.
- McDonald, H., T. London and S. L. Hart, 2004, "Expanding the playing field: Nike's world shoe project". Case 1-428-673, William Davidson Institute, University of Michigan, Ann Arbor, MI.
- Miles, M. B. and A. M. Huberman, 1994, *Qualitative data analysis*, 2nd edn. London: Sage Publications.
- Miroslava López, R. and F. Arenas Ballester, 2003, "Patrimonio Hoy". Case P-637, Monterrey: IPADE.
- Moore, J. F., 1996, *The death of competition: Leadership & strategy in the age of business ecosystems*. New York: Harper Business.
- Peteraf, M., 1993, "The cornerstones of competitive advantage: A resource-based view". *Strategic Management Journal*, 14: 179–191.
- Prahalad, C. K., 2004, *The fortune at the base of the pyramid. Eradicating poverty through profit*. Upper Saddle River, NJ: Wharton School Publishing.
- Prahalad, C. K. and A. Hammond, 2002, "Serving the world's poor, profitably". *Harvard Business Review*, 80: 48–55.
- Prahalad, C. K. and K. Lieberthal, 1998, "The end of corporate imperialism". *Harvard Business Review*, 76(4): 68–77.



- Prahalad, C. K. and S. L. Hart, 2002, "The fortune at the bottom of the pyramid". *Strategy+Business*, January(26): 1–14.
- Porter, M.E., 1996, "What is strategy?" *Harvard Business Review*, 74(6): 61–78.
- Reficco, E. and A. Vernis, 2010, "Market ecosystems and social inclusion". In P. Márquez, E. Reficco and G. Berger (eds.) *Socially inclusive business: Engaging the poor through market initiatives in Iberoamerica*. Cambridge, MA: Harvard University Press with David Rockefeller Center for Latin American Studies.
- Rangan, V. K., R. Rajan and D. Sehgal, 2005, "The complex business of serving the poor: Insights from Unilever's project Shakti in India". Paper presented at the conference Global Poverty: Business Solutions & Approaches, Boston, December 2005.
- Sánchez, P., (2009), *Estrategias de entrada en los países de bajos ingresos: una evaluación a partir de los modelos de negocio de empresas multinacionales* Unpublished doctoral dissertation, Universidad Politecnica de Catalunya, Barcelona.
- Sánchez, P., J. E. Ricart and M. A. Rodriguez, 2007, "Influential factors for becoming socially embedded in low-income markets". *Greener Management International*, 51: 19–38.
- Sánchez, P. and M. A. Rodriguez, 2005, "Grupo Nueva: Proyecto 'Todos Ganamos'". Case DG-1493. IESE Business School, Barcelona.
- Segel, A. and N. Meghji, 2005, "Patrimonio Hoy: A groundbreaking corporate program to alleviate Mexico's housing crisis". Paper presented at the conference Global Poverty: Business Solutions & Approaches, Boston, December 2005.
- Schumpeter, J.A., 1934, *The theory of economic development*. Cambridge, MA: Harvard University Press.
- Seelos, C. and J. Mair, 2007, "Profitable business models and market creation in the context of deep poverty: A strategic view". *Academy of Management Perspectives*, 21: 49–63.
- Shafer, S. M., H. J. Smith and J.C Linder, 2005, "The power of business models". *Business Horizons*, 48: 199–207.
- Simanis, E., S. L. Hart and D. Duke, 2008, "The Base of the Pyramid protocol: Beyond 'Basic Needs' business strategies". *Innovations*, 3(1): 57–84.
- Sirmon, D. G., M. A. Hitt and R.D Ireland, 2007, "Managing firm resources in dynamic environments to create value: Looking inside the black box". *Academy of Management Review*, 32(1): 273–292.
- Sutcliffe, K. and G. Huber, 1998, "Firm and industry determinants of executive perceptions of the environment". *Strategic Management Journal*, 19(8): 793–809.
- Tallman, S.B., 1992, "A strategic management perspective on host country structure of multinational-enterprises". *Journal of Management*, 18: 455–471.
- Teece, D., 2010, "Business models, business strategy and innovation". *Long Range Planning*, 43(2–3): 172–194.
- Weick, K.E., 1996, "Drop your tools: Allegory for organizational studies". *Administrative Science Quarterly*, 41: 301–313.
- Yin, R.K., 1994, *Case study research*, 2nd edn. Thousand Oaks, CA: Sage Publications.
- Yip, G., 2004, "Using strategy to change your business model". *Business Strategy Review*, 15: 17–24.
- Zott, C. and R. Amit, 2007, "Business model design and the performance of entrepreneurial firms". *Organization Science*, 18: 181–199.
- Zott, C. and R. Amit, 2008, "The fit between product market strategy and business model: Implications for firm performance". *Strategic Management Journal*, 29(1): 1–26.

## Appendix

See Tables A1 and A2.

**Table A1** Cases description

	<i>Case description</i>
Star	Star is a leading company in the food sector with international presence in more than 70 countries. Its main activity is the production and distribution of food products especially bouillon cubes, dehydrated soups and seasonings. When entering into developing countries, the firm considers the middle-low and low-income segment as its main target. Besides contextual conditions, the simplicity of its products and the fact that they were already known and used by poor people ease the transfer of the firm's business model without substantial changes.
Hindustan Unilever Limited (HUL)	Hindustan Unilever Ltd. is India's largest consumer goods company, marketing products such as beverages, food, and home and personal care goods. In 1987, HUL released Wheel, a product for the low-end detergent market, as a response to Nirma, a local competitor. In order to expand its distribution channels to rural areas, HUL developed the Project Shakti. HUL began looking for women in local villages to be direct-sales agents. The product was already familiar and thus HUL performed some advertising and communicating activities to support Shakti women, but did not change substantially the logic of its traditional business model. Under this system, women who have been working with micro-credit programs and have amassed some savings are encouraged to invest that savings in purchasing Hindustan Lever's products at costs from the manufacturer and sell them at a marked-up price to their villages and community. In 2007, the program reached 100,000 rural villages and 100 million people through a network of more than 30,000 women. Sales coming from this project were valued in US\$ 100 million.
Nike	In 1998, Nike began the development of the World Shoe Project, a footwear line exclusively intended for emerging markets in Asia, Africa and Latin America. Initial operations were performed at China. The World Shoe line was manufactured in China using local materials and Nike's existing manufacturing network, which helped to decrease import duties and other costs of production. The \$15 retail price point held the potential to capture a huge new customer base and expand the range of Nike products offered in retail stores. However, 3 years later Nike ended its support for the World Shoe in China as well as the other markets where it had been introduced. Lack of corporate flexibility in regard to profit expectations

Table A1 (Continued)

	<i>Case description</i>
	for the World Shoes, company's limited distribution infrastructure in this expansive country – shoes were not available outside the major metropolitan areas – and no specialized marketing or advertising plan created for the new product line were some of the main reason that explained the lack of the progress on the project.
CEMEX	CEMEX is a multinational cement manufacturing company out of Mexico. In 1998, CEMEX launched an innovative experiment called Patrimonio Hoy that enables very poor people to pay for services and building materials and upgrade their homes. The key elements of Patrimonio Hoy were: provide access to credit for the poor before selling the cement; improve the distribution and construction practices to make it cost-effective for CEMEX, its distributors and low-income customers; and improve the brand perception of CEMEX to earn trust in the people. All these changes required integrating different partners (government agencies, NGOs, local communities and distributors) to create a new ecosystem. In 2008, Patrimonio Hoy was present in 45 cities all over Mexico, where more than 200,000 families have participated in the program.
Tetra Pak	Tetra Pak is a Swedish family-owned company. It is one of the leading firms in aseptic packaging and equipment for liquid food processing. In 2000, Tetra Pak decided to create new markets for packaged milk in developing countries by launching 'Food for development' programs. By establishing public-private partnerships, Tetra Pak could introduce its technology and support actions for development through school feeding, nutrition and sustainable agricultural development programs. A set of actors needed to be integrated for strengthening the value chain of the dairy sector. This included support for farm production, technical assistance and financing for food processing, support for distribution development, and establish new market channels through school feeding programs. Due to these activities, Tetra Pak is achieving a competitive position in these markets.
Amanco	Amanco produces and distributes water pipes for agricultural systems and infrastructures in Latin America. In 2003, the firm launched in Guatemala 'Todos Ganamos', its first project addressing the low-income segment. Amanco designed a drip irrigation system adapted to small producers' needs to improve the competitiveness of this sector and favor a better management of water resources. Besides the technology, Amanco's model had two more key components: partnerships to provide access to credit; and collaborations with cooperatives to connect small producers with formal and international markets. Amanco's experience in Guatemala has been replicated in some other countries of the region, such as Brazil and Mexico.
Philips India (DISHA Project)	In 2005, Philips India launched the program DISHA (Distance Healthcare Assistance) after realizing that rural households spend close to 12% of income on healthcare and nearly 60% of this population takes loans at interest rates of 60–120% per annum to pay either for prolonged treatment or for hospitalization. Philips had custom-built a tele-clinical van complete with diagnostic equipment. The tele-clinical van had remote satellite connectivity with a specialty referral hospital where doctors and operational staff will provide specialized diagnosis and support the medical team in the van. DISHA was a public-private partnership among Philips, Apollo Hospitals, ISRO and DHAN Foundation. Apollo Hospitals provided healthcare services; ISRO, a government agency, provided the satellite connectivity; and DHAN Foundation, was the vital link to the local community. After a pilot test of 2 years, Philips was not able to replicate the project due to a lack of capacity to close the process of healthcare assistance. The DISHA project covered secondary assistance, but left unattended tertiary assistance. In order to cover this process a health insurance provider was needed, but Philips was not able to find a partner with the right skills to offer health microinsurances services in rural areas.

**Table A2** Analysis of business ventures in low-income markets

	<i>Level of munificence and dynamism</i>	<i>Business model nature</i>	<i>Performance in low-income markets<sup>a</sup></i>
Star	<p>The level of munificence was high as Star could leverage on available assets from the ecosystem – that is, distribution agents and networks – to adopt those policies that determined the logic of the virtuous cycles from its business model.</p> <p>The level of dynamism perceived by Star was low as the firm considered that its core resources and capabilities were valuable and enough to implement its business model and adapt its current products to sell them in low-income markets.</p>	Isolated	Success
Hindustan Unilever (HUL)	<p>The level of munificence was medium-high. HUL had one of the better logistics systems all over India, but the firm had to design and create a new distribution system based on direct-sales agent to reach customers in rural villages. Thus, operative changes to the business model were required to enter into rural areas.</p> <p>However, the level of dynamism was perceived as low because the logic of the HUL's business models and the virtuous cycles were based on the same strategic choices than in high-end markets.</p>	Isolated	Success
Nike	<p>The level of munificence was low. Neither the firm nor the ecosystem had available resources to introduce Nike's shoes outside major metropolitan areas. However, rather than creating a new distributions system and developed adapted marketing campaigns, Nike preferred to rely on its traditional distribution channels and on its own brand.</p> <p>The level of dynamism was perceived by Nike as low as the firm considered that the current market infrastructure in the Chinese footwear market was consistent enough to lead the expected consequences from business model choices.</p>	Isolated	Failure
CEMEX	<p>The level of munificence in the self-construction segment was low as the context did not have the information either the resources to perform R&amp;D, marketing, training, financing and post-sale activities, which were required to implement the Patrimonio Hoy project. Accordingly, Cemex had to establish social and commercial partnerships to fill these capability gaps and co-create these resources.</p> <p>The level of dynamism was acknowledged by Cemex as high. For this reason, the firm decided to implement knowledge-generation systems to co-develop innovations along with local actors. By doing this, Cemex expected to define a new set of choices that could improve the building process for self-constructors, which in turn would activate the firm's virtuous cycles.</p>	Interactive	Success
Tetra Pak	<p>The level of munificence for Tetra Pak's operations in the dairy sector in low-income markets was low. For this reason, Tetra Pak designed the value chain model called 'from the cow to the consumer', which included a set of choices to strengthen both the production and marketing activities along with public, private and social actors.</p> <p>The level of dynamism was high as Tetra Pak's performance was dependant mainly on the dairy farms' performance. In order to accelerate learning processes and ease knowledge</p>	Interactive	Success

Table A2 (Continued)

	<i>Level of munificence and dynamism</i>	<i>Business model nature</i>	<i>Performance in low-income markets<sup>a</sup></i>
	transfer in its operations in low-income markets, Tetra Pak created the 'Food for Development Office'.		
Amanco	<p>The level of munificence was low for implementing the project 'Todos Ganamos'. Formal distribution channels to reach small producers were not available. Financing systems were not in place either. Besides, training and capacity-building activities were needed. Amanco did not have the capacities to perform these activities alone. As recognized by Amanco's managers, without the establishment of partnerships with communities and NGOs, it would have been not possible to co-create these resources in the ecosystem.</p> <p>The level of dynamism was high because Amanco's success was dependant on the performance of small producers. 'Todos Ganamos' was implemented in Guatemala as a pilot test to be replicated later on – once the components of the business model and the relationships between choices and consequences were more understood – in other countries of the region.</p>	Interactive	Success
Philips India (Disha Project)	<p>The level of munificence was low as rural areas in India were characterized by a lack of medical infrastructure. Philips had to establish partnerships with the private sector, government bodies and foundations to create a system that could deliver secondary healthcare assistance in rural areas.</p> <p>The level of dynamism was high as the DISHA project was one of the first initiatives to deliver distance healthcare assistance in India. Managers acknowledged that a certain amount of uncertainties were present and they needed some time to fit all the elements of the business model.</p>	Interactive	Failure

<sup>a</sup> The level of performance is determined by the venture's sustainability. Initiatives that have failed are those that the company has quit. Initiatives that have succeeded are those that the company has maintained and replicated.