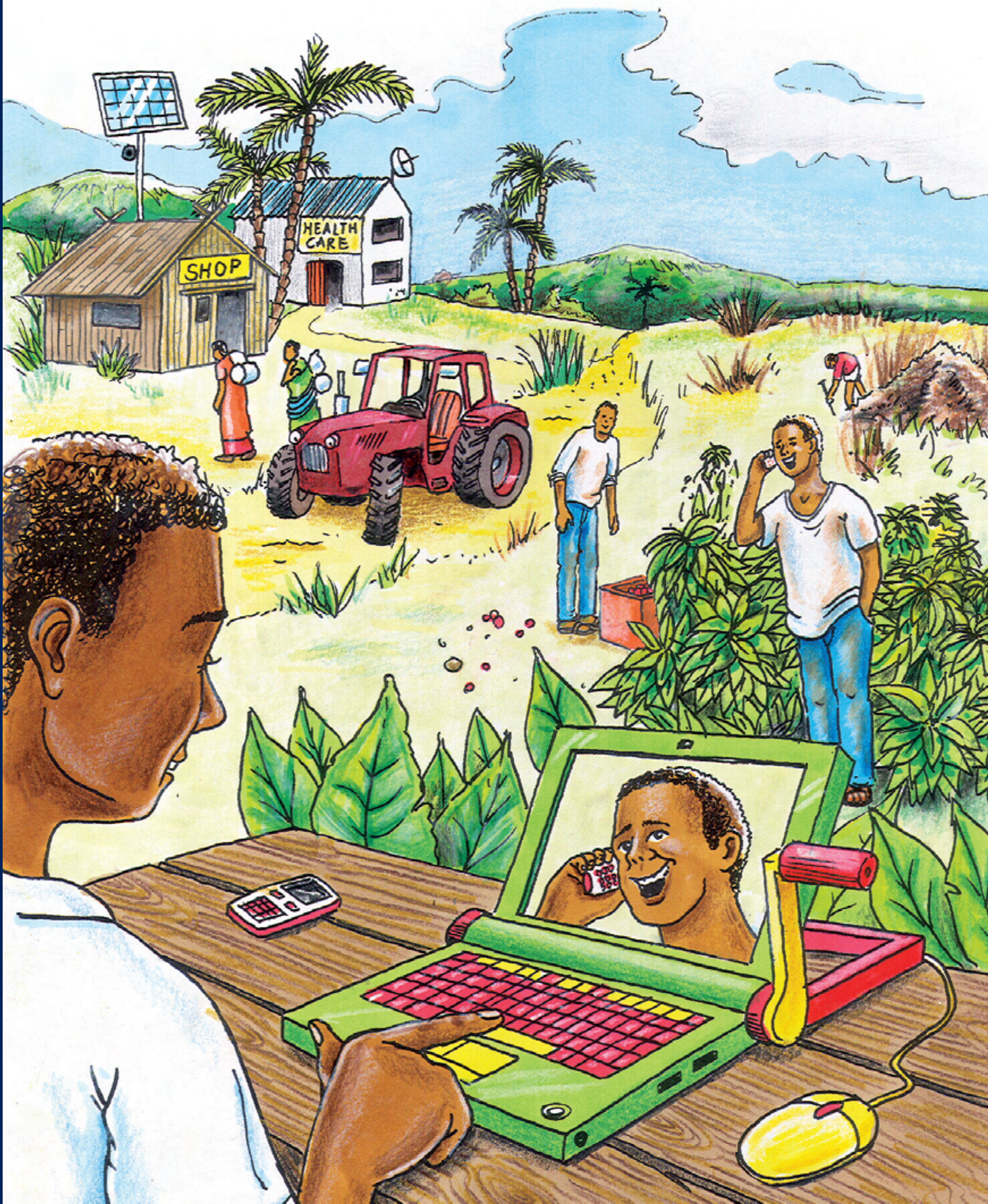
MARTIN H. KLEIN

Poverty Alleviation through Sustainable Strategic Business Models

Essays on Poverty Alleviation as a Business Strategy



POVERTY ALLEVIATION THROUGH SUSTAINABLE STRATEGIC BUSINESS MODELS

Essays on Poverty Alleviation as a Business Strategy

Poverty Alleviation through Sustainable Strategic Business Models

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Armoedebestrijding via duurzame strategische bedrijfsmodellen:
Essays over armoedebestrijding als bedrijfsstrategie

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Fig. 1.1 and picture underneath “BoP context” in Fig. 5.1: Prahalad and Hammond (2002)
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Committee members
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CHAPTER 1: Introduction and Outline

Those living in poverty present great business opportunities for the private sector. They represent a market with opportunities for entrepreneurship, market entry and growth, innovation, labor and much more (e.g., Hart, 2005; London & Hart, 2004; Prahalad & Hammond, 2002; Prahalad, 2005). The private sector and the poor stand to benefit from the inclusion of those living in poverty as producers and as consumers in businesses that operate on a for-profit basis. The point of departure of this dissertation is, therefore, the existence of a potential win-win situation, whereby doing good for low-income people can enable firms to do financially well (cf. Letelier, Flores, Spinosa, 2003; Rangan, Quelch, Herrero, & Barton, 2007; Seelos & Mair, 2007; Viswanathan, Seth, Gau, & Chaturvedi, 2007; WBCSD, 1997, 2004). In fact, profitable business initiatives stimulate new investments, replication, and innovation. They motivate the private sector to deploy its problem-solving capacity to make markets work more effectively and efficiently in favor of the poor as it is in their best interest to do so. However, conditions in the low-income context differ from those in high-income markets. These include differences in cultures, institutions, cognitions, dependence on the informal economy, economic development, living conditions, and motivation (cf. Table 5.2). One example of this is that market imperfections are generally much more significant, as information asymmetries, fragmented markets, weak legal institutions, badly developed infrastructure, and a poverty penalty are highly prevalent in the low income context (e.g., Hoskisson, Eden, Lau, & Wright, 2000; Viswanathan et al., 2007). These differences necessitate business model innovation to enable firms to operate successfully in low-income markets (e.g., Arnold & Quelch, 1998; Chesbrough, Ahern, Finn, & Guerraz, 2006; Dawar & Chattopadhyay, 2002; Hart, 2005; London & Hart, 2004; Seelos & Mair, 2007). In this dissertation, we examine the conditions within low-income communities and the business challenges these conditions generate for firms. Subsequently, we examine the consequences of these conditions for firms' strategies and business models. To this end, we use the lens of the strategic business model to examine firms that include the poor. In so doing, we develop an understanding of the business models through which firms can include those living in poverty (as producers as well as consumers) in a profitable manner.

This dissertation contains four essays, which can be read independently from each other. In this first chapter, we briefly introduce the research topic, namely the base-of-the-pyramid (abbreviated as BoP throughout this dissertation and also referred to as the bottom-of-the-pyramid in the literature), and position it as a business strategy of "doing well by doing good". Next, we develop the motivation and overall objective of this dissertation and lastly, reflect on the outline and objective of each of the essays.

1.1 Research context: Base-of-the-Pyramid

Is the *raison d'être* of the private sector purely the gain of some individuals or does its right to exist stem from its value to society as a whole? The societal contribution of the private sector undoubtedly forms part of the answer. Indeed, business cannot succeed in the long run in a world that fails. This idea is implicitly suggested by the Swedish word for "business" (näringsliv), which can literally be translated to mean "nourishment for life". Although the private sector can contribute in many ways to society, this dissertation focuses on the creation of a corporate vision to sustainably serve the unmet social needs[1] of

[1] To meet someone's social needs is to improve that person's quality of life. Nussbaum (2000: 78-80) operationalizes the quality of life in ten dimensions:
"1. *Life*. Being able to the end of a human life of normal length; not dying prematurely, or before one's life is so reduced as to be not worth living.
2. *Bodily Health*. Being able to have good health, including reproductive health; to be adequately nourished; to have adequate shelter.
3. *Bodily Integrity*. Being able to move freely from place to place; having one's bodily boundaries treated as sovereign, i.e. being able to be secure against assault, including sexual assault, child sexual abuse, and domestic violence; having opportunities for sexual satisfaction and for choice in matters in reproduction.
4. *Senses, Imagination, and Thought*. Being able to use the senses, to imagine, think, and reason—and to do these things in a "truly human" way, a way informed and cultivated by an adequate education, including, but by no means limited to, literacy and basic mathematical and scientific training. …
5. *Emotions*. Being able to have attachments to things and people outside ourselves; to love those who love and care for us; to grieve at their absence; in general, to love, to grieve, to experience longing, gratitude, and justified anger. …
6. *Practical Reason*. Being able to form a conception of the good and to engage in critical reflection about the planning of one's life. …
7. *Affiliation*. *A*. Being able to live with and toward others, to recognize and show concern for other human beings, to engage in various forms of social interaction; to be able to imagine the situation of another and to have compassion for that situation; to have the capability for both justice and friendship. … *B*. Having the social bases of self-respect and non-humiliation; being able to be treated as a dignified being whose worth is equal to that of others. This entails, at a minimum, protections against discrimination. …
8. *Other Species*. Being able to live with concern for and in relation to animals, plants, and the world of nature.
9. *Play*. Being able to laugh, to play, to enjoy recreational activities.

the world's poor through the private sector its core business. The alleviation of poverty lies at the heart of such a vision. The idea that the private sector could develop in such a way as to include the poor as both producers and consumers has become known as the base-of-the-pyramid or the bottom-of-the-pyramid approach. It distinguishes itself from other approaches to poverty alleviation, such as philanthropy, in that it regards a firm's business skills as a vital element in fighting poverty. Moreover, it regards poverty alleviation as a core business from which companies as well as the poor can profit, both financially as well as non-financially. The BoP perspective also distinguishes itself from the prevailing approach in that it is more inclusive, i.e., it includes those living in poverty instead of solely dealing with a very limited group of wealthy people.

What is the base-of-the-pyramid? The BoP refers to a socio-economic group of people who form the 'underclass' of society and are prone to marginalization (e.g., Hart, 2005; London & Hart, 2004; Prahalad & Hammond, 2002). Even though the BoP, and poverty in general, is usually primarily defined on the basis of purchasing power, the BoP covers the full range of aspects of people's 'standards of living'[2]. It is about the full range of socio-economic conditions instead of purely on income and these are not perfectly correlated (Hart, 2005: 168; International Poverty Centre, 2006). In fact, the World Values Survey suggests that countries with, on average, the happiest people are respectively Nigeria, Mexico, Venezuela, El Salvador, and Puerto Rico (Inglehart, Basanez, Diez-Medrano, Halman, Luijkx, 2004), all of which are countries with a below average GDP per person. For practical reasons, however, the BoP is usually defined on the basis of purchasing power parity. The world is often portrayed as a pyramid with three categories: the wealthy at the top, the middle class in the middle and the large numbers of poor making up the base. The people at the base of this pyramid have an average daily purchasing power parity of US$2 or less, although the BoP has also been defined as people with a purchasing power parity of US$4 or less a day, US$1.500 a year and US$3.000 a year (Hammond, Kramer, Katz, Tran, & Walker, 2007). Figure 1.1 is from Prahalad and Hammond (2002) and illustrates "the base-of-the-pyramid" from a financial income perspective.

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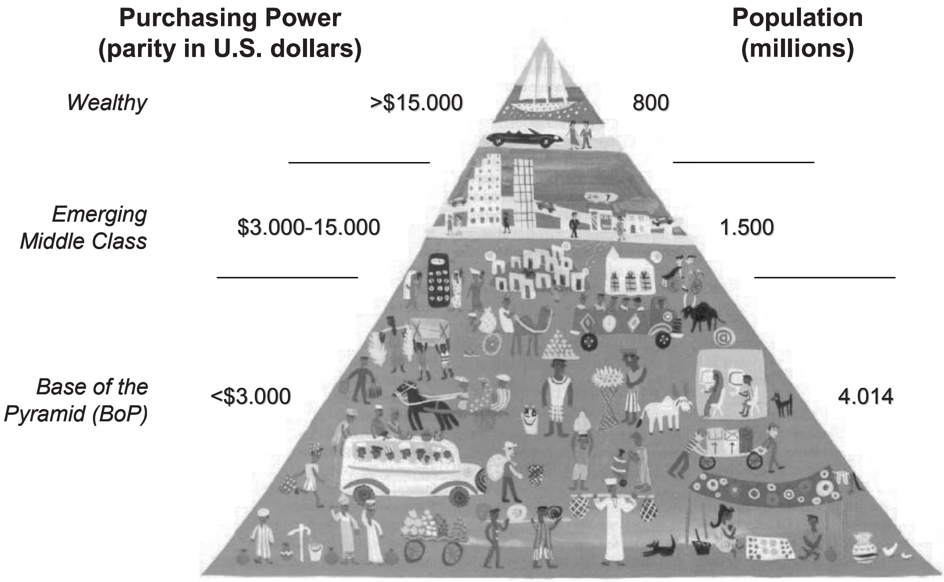
10. *Control over One's Environment*. *A. Political*. Being able to participate effectively in political choices that govern one's life; having the right of political participation, protections of free speech and association. *B. Material*. Being able to hold property (both land and movable goods), not just formally but in terms of real opportunity; and having property rights on an equal basis with others; having the right to seek employment on an equal basis with others; having the freedom from unwarranted search and seizure."

[2] A much better, though still imperfect, measure would be to examine the total income of a person—including barter exchanges, household production, gifts, help from amongst others the extended family and the community, and financial income (cf. Gibson-Graham, 2006). Another way to define poverty is by the freedoms that people experience (Sen, 1999), something touched upon in Chapter 5.



Source: Prahalad & Hammond (2002); Hammond et al. (2007)

Figure 1.1: The base-of-the-pyramid: An estimation of its size

About four billion people, i.e., two out of three people in the world, live on less than US$3.000 a year in 2002 PPP, which is US$3.260 in 2005 PPP and about US$8 a day, PPP (Hammond et al., 2007). In this dissertation, the BoP is defined as those living on less than US$2 a day against PPP. This might appear an arbitrary cut-off point but it is the one also used by the World Bank. According to the World Bank, 2.6 billion people lived on less than US$2 a day in 2006. In Africa, excluding South Africa, the average annual income is US$342 per person (World Bank Africa Database 2005). According to the Population Reference Bureau (2006), 79.5 of the 80.6 million people by which the world population increases each year are born in less developed countries (where most of the poor live). Hence, the BoP is composed of a very large group of people who have, consciously or not, largely been ignored by the private sector, which has chosen to focus on the other tiers of the pyramid.

Study object and lens. This dissertation studies for-profit businesses focused at the people at the BoP. These firms distinguish themselves in that their main customers, employees, suppliers, and/or distributors have an average daily purchasing power of $2 or less. In response to recent criticism on BoP literature (e.g., Karnani, 2007a,b; Landrum, 2007), we will study businesses that target low-income people not only as consumers but as producers, and entrepreneurs. These businesses are western as well as local in origin and include SMEs as well as initiatives by multinationals. The lens from which these businesses are studied is from the strategic business model concept (e.g., Arnold & Quelch, 1998; London & Hart, 2004; Seelos & Mair, 2007).

Table 1.1: Illustrative examples of BoP firms

Celtel (Source: de Catheu, "Growing Inclusive Markets" initiative of UNDP, 2007)

Celtel is a mobile telecommunications company in Africa (with its headquarters in the Netherlands). It entered the Democratic Republic of the Congo in 2000 at the time of a civil war and where more than 75% of the population lived on less than $1 a day. Infrastructure, such as roads, electricity, financial institutions, and media, was and remains either absent or in a dire state. Insecurity from armed groups was rampant, and isolation and pauperization of communities were consequently common. As a result, it was a challenge for Celtel to deploy its staff, cell phone towers, satellite dishes, and generators. Nevertheless, fixed-line telephone penetration was and remains minimal whereas the need for telecommunication is significant. Many people became displaced during the war and mobile communication has proven to be essential for the reintegration of communities and to reunite families. Displaced people and refugees formed a natural market for Celtel.

In response to these conditions, Celtel built its business model on mobile telephony, prepaid cards, shared-access, and local distribution. Prepaid cards avoid the problems of having to deal with bad debts. Handsets can be shared by family members and by communities. Local entrepreneurs ("mamans GSM") may rent the handset from Celtel and start a mobile Celtel kiosk to earn a living. Access to microcredit can be vital for these local entrepreneurs. Celtel also makes clever use of the ongoing reconstruction efforts in its marketing activities; for example, in many villages the only recently painted walls are Celtel red and yellow (i.e., the walls of the vendor units of Celtel), UN blue, and Vodacom (a competitor) white, green, and blue. In a culture of the spoken word, Celtel's "advertising campaigns emphasize re-connecting people previously separated, believing in oneself, and building a new tomorrow, all themes that resonate in a post-conflict country". Furthermore, its "quality of service takes into account social challenges such as illiteracy". For example, Celtel has been setting up customer care centers throughout the country. Celtel has also paid great attention to the development of locally appropriate applications such as the development of Celpay (now owned by another company), a mobile banking system, which enables the poor to transfer funds through encrypted SMS. This way Celtel does not need to travel with large amounts of money. Given the lack of a financial infrastructure and the danger of holding cash, it has become one of the most popular means of payment in the country. Celtel also engages in local capacity building. For example, it partners the government in a demobilization and reintegration program for former combatants. Celpay facilitates the payments to these former combatants.

The Congolese people benefit enormously from this mobile communication as it helps compensate for the present lack of infrastructure, security, and social cohesion. Mobile communication augments people's access to information and their ability to do business; "farmers and small entrepreneurs can reduce the cost of travel, get information on the price of goods to buy and sell as well as on security and road conditions. Job applicants can seek information on training and on opportunities in both the formal and informal sector". It also increases access to basic health and education services where it can be difficult to transport people to a doctor. "There are many cases of former street children and child soldiers who have turned to selling prepaid cards for a living". Celtel has invested over US$300 million in the Congo. It had over 2 million customers in 2007 and is profitable.

Honey Care Africa (Source: Branzei & Valente, Richard Ivey School of Business, 2001)

Honey Care Africa purchases honey from small rural farmers in Kenya, who have incomes barely above subsistence levels. It markets the honey through retailers and other outlets in Kenya's urban areas and also exports part of the produce as a fair trade product. Traditionally, the value chain of Kenya's honey market has a long sequence of intermediaries, whose "corruption and inefficiencies … thinned farmers' margins" and left them with a limited knowledge of the end market. Middlemen underpay farmers and delay reimbursement for many months. Honey Care Africa responded to these conditions. They "provided farmers with the tools required to harvest honey, purchased the honey from the farmers at guaranteed and fair prices, packaged it in marketable containers, managed the supermarket distribution and marketed the honey to Kenyan urban consumers. Honey Care Africa organized reliable collection of the honey, manufactured and helped farmers acquire hives, provided local training and technical support and, as much as possible, paid farmers in cash within 48 hours". This allowed them to gain farmers' trust and commitment. In fact, Honey Care Africa "employed a team of project officers, who were dedicated to a small number of farmers in their neighboring communities and worked one-on-one with farmers to maximize their yield and quality". Project officers were "deeply committed to the social development of their communities" and "play[ed] an important role in knowing what is happening on the ground". Honey Care Africa entered into a number of partnerships with NGOs and built close, trusting relationships with rural communities, micro-financing institutions, and with colleges who now provide beekeeping training. By organizing the fragmented industry, Honey Care Africa reduces subsistence farmers' dependence on middlemen. They enhance farmers' access to capital and technology, their quality of produce, and their access to sales and procurements markets.

Honey Care Africa started in 2000 and in 2006 had 68 per cent market share in the Kenyan honey market. It had 48 full-time staff and 2,179 active honey suppliers. It offered seven different types of honey and had a vast distribution network. It is also looking into the possibility to develop healthy honey products for the poor. While beekeeping was traditionally done by men, 30 per cent of Honey Care's suppliers are women. The income of subsistence farmers has grown substantially and Kenyan customers, who had been turning to imported honey because of the low local quality, were again buying locally produced honey as its quality had substantially improved.

Project Shakti, Hindustan Lever Ltd. (Source: Ionescu-Somers & Amann, IMD International, 2006)

Hindustan Lever Ltd. (HLL) is a fast moving consumer goods company in India. It is a subsidiary of Unilever. In 2006 it set up the Shakti project to stimulate the demand for its products amongst the poor. The project was set up in partnership with rural self-help groups. It helps rural, female self-help groups access microcredit to purchase HLL's products, and trains these (mostly illiterate) micro entrepreneurs to sell its products in their villages (including door-to-door). Training involves sales and promotion techniques as well as educating consumers in personal and oral hygiene matters. The Shakti project enables HLL to penetrate the informal sector as it provides it with a distribution backbone and a one-to-one, interactive communication channel into even the most inaccessible rural, low-income villages in India. Its products offer health benefits, something which enabled HLL to establish partnerships with NGOs and UNESCO. The project provides the Shakti women with a livelihood and a way to empowerment. From 2000 to 2005 the project had extended to about 50,000 villages, 13,000 Shakti-entrepreneurs, and reached 15 million people in rural areas.

Farmacias Similares (Source: Chu & Garcia-Cuellar, Harvard Business School Press, 2007)

While the Mexican government, in theory, "provided the poor with complete medical attention and free prescription medicines …, in reality, only 18% of medicines were provided, primarily due to stock-outs …, forcing individuals to buy their medicines in commercial pharmacies with out-of-pocket [non-reimbursed] resources". In spite of its good intentions, the government seemed unable to service to the poor. Although it offered free health care insurance, many of the poor remained uninsured and without access to health care services.

Farmacias Similares sells generic medicines and complementary products (e.g., beauty and personal grooming articles) to the poor in urban areas in Mexico. Its retail chain is partly franchised. The stores have a distinct format (very clean, open, bright, and organized) and its service and aggressive publicity campaigns distinguish Farmacias Similares from its competitors. Furthermore, "[i]t was the first pharmacy in Mexico dedicated exclusively to generic medicines, with the merchandise on its shelves priced at least 30% lower [and often much more than that] than the traditional branded medicines”. There is a family doctor’s office for primary healthcare consultations adjacent to most of its pharmacies. Patients are seen on a first-come first-served basis, for a flat fee of P$20, or roughly $2. To this end, Farmacias Similares partners with a Mexican nonprofit foundation, to which Farmacias Similares also makes donations.

In nine years, Farmacias Similares has become the largest drugstore chain in Mexico with over 3,400 drugstores located in the low-income neighborhoods of Mexico. It has recently expanded to 10 other Latin American countries. Its sales exceed $600 million and it serves more than 10 million clients a month. It is increasingly also selling to the middle class.

See Table 5.3 on page 222 for more examples of BoP firms.

1.2 Base-of-the-pyramid businesses: A strategy of “doing well by doing good”

The social contribution of businesses is one of the most important “raison d’êtres” of the private sector. In the pursuit of value creation through social value creation[3], it is possible to distinguish four innovation strategies, as presented in Figure 1.2.

	Internal	External
Tomorrow	**Social Innovation** To augment social impact through fundamentally new business models and technologies.	**Social Vision** The creation of a common vision and a shared plan to sustainably solve world’s social problems and serve unmet needs.
Today	**Prevention** Incremental internal (process) adjustments to augment social impact and prevent negative social effects.	**Stakeholder Involvement** Increased stakeholder engagement and integration of new perspectives and knowledge from stakeholders into existing business activities with the aim of augmenting social impact.

Figure 1.2: Strategies for social value management (adapted from Hart, 1997, 2005)

[3] “Social value is created when resources, inputs, processes or policies are combined to generate improvements in the lives of individuals or society as a whole” (Emerson, Wachowicz, & Chun, 2000: 137). Pareto efficiency adds the call for one group of people not being made worse off to generate improvements in the lives of another group.

One path for firms wishing to improve their impact on society is shown in Figure 1.3 (adapted from Hart, 1997, 2005). Long-term impact requires success within each of the four strategies simultaneously and not solely in one (cf. Hart, 2005). All four strategies are complementary. A strategy of Social vision in the long-term is the most far-reaching and, if correctly complemented with the others, has the highest potential pay-off. Conversely, firms that pursue and propagate a Social vision strategy without mastering the other three merely pay lip service to social pressure, which may eventually damage their reputation.

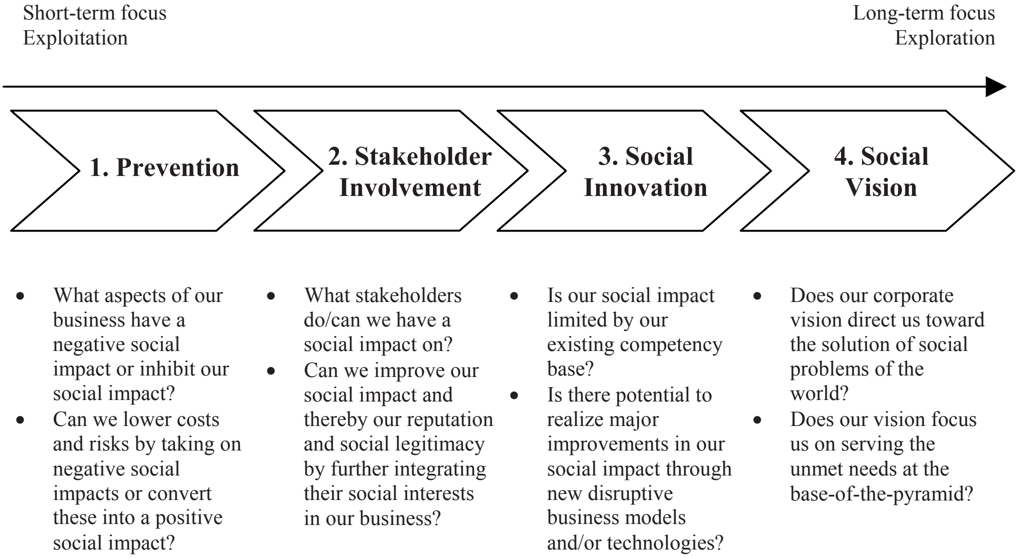


Figure 1.3: Path of social value management (adapted from Hart, 1997, 2005)

1. Prevention. Businesses typically start thinking about social value management in the form of prevention. The focus of this strategy is the refinement of the way the business operates and on making process changes in order to realize incremental improvements in its social impact. This internally focused strategy aims to optimize internal processes and in doing so refine its social impact. The focus is on the prevention or minimization of negative social effects.

2. Stakeholder involvement. One step further, businesses search for ways to achieve a *positive* social impact. They seek a dialogue with external stakeholders to further integrate stakeholders' interests in their business. All direct and indirect social effects of the business on the full spectrum of stakeholders are included in this analysis. An additional advantage of this strategy is that innovation does not remain restricted to the mental models inside the business. In addition to social value creation, stakeholder involvement may have reputation management as a goal.

Both these strategies of social value management focus on the current activities of a business. They are short-term oriented and consequently more directed at exploitation than exploration. Businesses using these strategies concentrate on making improvements within their existing business. They demonstrate an increased focus, more efficiency and pay a great amount of attention to implementation. The next two strategies, Social innovation and Social vision on the other hand, are long-term oriented as they concentrate on future opportunities for the business and require a more exploratory approach. These strategies of social value management can be characterized as exploratory expeditions with a broad perspective in which businesses search for new opportunities, experiment with them and display a large degree of variety and flexibility.

3. Social innovation. Through a strategy of Social innovation, businesses search for disruptive new business models and technologies to significantly enhance their social impact. They, for example, seek new management styles and organizational forms to stimulate social innovation. They do this by organizing in virtual networks (Ahuja & Carley, 1999), through inspirational leadership and management styles (Burton & Obel, 2004), by incorporating flexible business methods (Volberda, 1996, 1998) and by developing talent. Social innovation is limited to the existing business domain.

4. Social vision. The next step involves undertaking visionary initiatives outside the existing business domain in an attempt to create social value by solving the world's social problems. The business serves new stakeholders and new markets because these offer unexploited social (and economic) opportunities. This strategy displays visionary leadership; it breaks the status quo and expresses a long-term commitment.

Nowadays, more and more businesses regard serving the BoP as a vital part of their social vision. The BoP is thus creating new markets and new opportunities for an increasing number of businesses. The BoP approach is a strategy of Social vision for the private sector as a whole.

1.3 The BoP approach as form of poverty alleviation

Without doubt, tackling poverty is of prime importance. Not only is it a moral obligation but also it could be seen to be responsible for present social and political unrest and may cause war and terrorism (e.g., de Soto, 2000; Prahalad & Hammond, 2002). The BoP has thus become an increasingly important issue on the political and managerial agenda (e.g., Pearce, 2005). This became even more evident with the creation of the Millennium

Development Goals[4] (Sachs, 2005b) in which 189 world leaders laid down eight development goals to be realized by the year 2015, and with the foundation of the UN Global Compact.

Attention to those living in poverty is not new. In his inaugural address in 1949, United States President Harry Truman claimed that "[f]or the first time in history, humanity possesses the knowledge and the skill to relieve the suffering of these people [those living in poverty]." His words suggest there is a long history of developed countries thinking they have the solution to poverty. In spite of this, development aid often does not reach the people or places it should and philanthropic acts are limited by available budgets. Indeed, both have been criticized for their lack of efficiency, their bureaucracy and limited sustainability.

What makes the BoP approach stand out against this background of many attempts, but limited results? How can it make a sustainable contribution to poverty alleviation or even eradication? It is unique in that it places emphasis on the private sector as the crucial actor. More specifically, it places emphasis on the development of the private sector to include the poor as producers (employees, suppliers, distributors) and consumers. For economic growth to lift people out of poverty, all actors—governments, NGOs, and the private sector—need to live up to their roles before win–win situations can occur through mutually reinforcing initiatives (Ellerman, 2005).

Profitable business initiatives can stimulate new investments, innovation (targeted at the BoP), and replication. The private sector its business skills, such as market research, value chain management, risk assessment and scaling up, are vital not only for developing profitable business initiatives but *also* for the economic development of those living in poverty (Prahalad & Hammond, 2002; Rangan et al., 2007; World Bank, 2005). Indeed, businesses targeted at the poor will make it their business to make markets work more effectively and efficiently in favor of the poor as it is in their best interest to do so. For example, previous research suggests that the private sector can provide the poor with access to new products and services. It can empower them, provide opportunities out of poverty, increase self-esteem, and give hope for a better future (e.g., Chambers, 1997; Hart & Milstein, 2003; Sen, 1999; World Bank, 2001; WBCSD, 2005).

The self-esteem and aspirational capacity of those at the base-of-the-pyramid benefit more from the opportunity to be actively involved in changing their situation and from contributing to commercial endeavors than from merely accepting aid without being able

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[4] The goals are as follows: (1) halving extreme poverty and hunger; (2) achieving universal primary education; (3) promoting gender equality; (4) reducing child mortality by two-thirds; (5) reducing maternal mortality by three-quarters; (6) reversing the spread of HIV/AIDS, malaria and other major diseases; (7) ensuring environmental sustainability and (8) creating a global partnership for development.

to return a service (cf. Appadurai, 2004; Prahalad, 2005). In order to be able to optimally deploy the business skills of the private sector, it is important that those at the BoP are part of the core business instead of merely a philanthropic activity. In fact, private sector initiatives directed at the BoP must have a sustainable commercial approach. Only then will such initiatives become part of the core business and can they endure and be replicated more easily (e.g. Prahalad, 2005; WBCSD, 2005). Increased competition in this area may subsequently drive the private sector to new developments and to better service the poor. Moreover, if BoP initiatives form part of a company's core business, their potential impact would be much greater since commercial activities are less restricted by budget. Unlike development aid, the BoP approach offers a way for change from within. As their capacities grow the people at the base-of-the-pyramid are instrumental in changing their own lives. The private sector fuels this change while it becomes embedded within the economy and society of their country.

Table 1.2: Levels at which the private sector can involve the poor into their daily operations:

1. Indirect involvement: for example through outsourcing or involvement in a value chain in which other businesses involve the poor in their operations.
2. BoP as producer (employee/entrepreneur): The poor as direct supplier, employee, or distributor of the business.
3. BoP as consumer: The poor as consumer.
4. Move innovations up-market to the middle-of-the-pyramid and/or the top-of-the-pyramid: The business introduces business model innovations and/or technological innovations learned at the BoP in the other tiers of the economic pyramid.

It is thus through the development of profitable, inclusive businesses and markets that the private sector can make a potentially important contribution to poverty alleviation. This creates a potential win-win situation; where doing good socially and environmentally at the BoP, firms can do well financially. Yet, the private sector is an extremely underdeveloped actor in the arena of poverty alleviation, both in terms of investment as well as innovation (Hammond et al., 2007; OECD Development Centre, 2007; Steidlmeier, 1993; World Bank, 2005). One cause for this is the lack of knowledge available to guide private sector endeavors toward a sustainable path that would alleviate poverty (Pearce, 2005). We aim to contribute to such knowledge with this dissertation.

1.4 Business arguments to develop a business strategy around the BoP

There are thus a number of reasons why the private sector should be involved in poverty alleviation on a for-profit basis. But are there arguments for doing business at the BoP other than moral concerns? First and foremost, the BoP represents a market opportunity. It represents markets where firms can purchase and sell goods and services, where they can recruit and train laborers, where they can collaborate with and learn from different kinds of actors, and much more. Arguments that could help convince businesses to enter these markets include growth opportunities, a source of innovation, efficiency advantages, and reputation advantages (Brown, 2005; Christensen, Craig, & Hart, 2001; Hart & Christensen, 2002; Prahalad & Hammond, 2002: 51; Steidlmeier, 1993; World Bank, 2005).

1. Growth opportunities. "Many companies are working overtime trying to get a fraction of a per cent increase in market share in a developed country" (Martinez & Carbonell, 2007). Since developed markets have become increasingly saturated and competitive, firms are constantly searching for new markets in an attempt to live up to investors' expectations. The BoP presents ample opportunity for such growth. The reasons for this include:

- The BoP contains a large number of people with a substantial collective purchasing power. According to Hammond et al. (2007) the BoP—defined as those living on an annual purchasing power parity of less than US$3.000—constitutes a US$5 trillion global consumer market on basis of PPP (and US$1.3 trillion if not corrected for PPP; which is a more relevant measure for firms).
- The BoP is argued to have latent entrepreneurial drive and motivation to produce and consume (Chambers 1997; de Soto, 2000; Prahalad, 2005). This is clearly visible in the informal sector at the BoP. For "concealed below the surface of the GNP and PPP numbers … is an immense and fast-growing economic system that includes a thriving community of small enterprises, barter exchanges, sustainable livelihoods activities, subsistence farming, and unregistered assets (Chambers, 1997)" (London & Hart, 2004: 353). If such significant, unrealized potential of human and other capital could be made productive, it would present a momentous market opportunity for the private sector.
- In cases where people at the BoP have access to products, services, and production opportunities, many are still badly served. They are treated without respect and confronted with a poverty penalty: "[m]any in the BoP, and perhaps most, pay higher prices for basic goods and services than do wealthier consumers—either in cash or in the effort they must expend to obtain them—and they often receive lower quality as well" (Hammond et al., 2007: 5). Therefore, a firm that serves the poor well has a substantial growth potential and the loyalty of the poor.
- Non-consumption as competitor (Christensen & Raynor, 2003). Where markets are underserved there may be little direct competition from other firms. In fact, people at the BoP often have very little to consume or produce. Consequently, they don't first

need to unlearn and are not locked into consumption patterns that have to be broken, thereby easing the adoption and diffusion process.

2. Source of innovation. Success at the BoP may require innovative business models and disruptive technologies that significantly differ from those on other tiers of the pyramid (e.g., Arnold & Quelch, 1998; Chesbrough et al., 2006; Dawar & Chattopadhyay, 2002; Hart, 2005; London & Hart, 2004; Seelos & Mair, 2007). This is due to the fact that the characteristics of the poor and the challenging circumstances in which firms operate in the BoP invariably generate business challenges specific to the BoP (e.g., Banerjee & Duflo, 2007; Hammond et al., 2007). Success at the BoP therefore requires an innovative business approach with a competitive logic that may significantly differ from that in other tiers of the pyramid. Such innovation may also find application in other tiers of the pyramid (Brown, 2005; Hagel & Brown, 2006; Hitt, Li, & Worthington IV, 2005; Mahajan, Pratini De Moraes, & Wind, 2000; Prahalad, 2005). In fact, by deciding not to enter the BoP, a company may miss out on these new developments but still have to deal with them and their consequences in the home market.

3. Efficiency advantages. Firms can realize efficiency advantages by outsourcing to low wage countries and developing the innovative cost structures necessary at the BoP.

4. Reputation and long-term survival. Company image, corporate responsibility, and corporate citizenship are becoming increasingly important nowadays and firms are regularly held accountable for them. They are important for employee motivation and as sources of inspiration. Moreover, if the free enterprise market system is to be "viewed as a struggle between the poor and dispossessed and the rich and powerful, the market becomes a zero-sum game" (Steidlmeier, 1993: 214-215). Hence, business cannot succeed in the long run in a world that fails; its long-term survival depends upon its perceived integrity.

There is also criticism of the literature dealing with the BoP approach to poverty alleviation. Part of this is based on the fact that firm-level research on the private sector in the BoP has remained largely limited to case studies. Furthermore, the link between theoretical arguments and empirical evidence is regarded as weak and a systematic analysis of underlying conceptual issues is still in its formative stages. As a result, some concern and criticism has been raised about the validity of the claims made in BoP literature about the size of the BoP market in terms of numbers of people and their purchasing power, about the romanticization of the BoP as resilient and creative entrepreneurs, about its overemphasis on the poor as consumers as well as an unjustified assumption of the poor being value conscious consumers. There is some question about its lack of attention to the role of SMEs but also its overemphasis on creating small-scale entrepreneurs out of the BoP (e.g., by providing microcredit)—which lack economies of scale and hardly create employment opportunities. Doubts have also been raised about its overstated potential profitability, its overemphasis on the role of the market at the cost of insufficient attention for governmental responsibilities, and a slant towards Western ideals of success and development (e.g., Jenkins, 2005; Karnani, 2007a,b; Landrum, 2007; Walsh, Kress, & Beyerchen, 2005). This dissertation responds to these criticisms in three ways. First, we include businesses targeted at low-income people as not only consumers but also as producers and entrepreneurs. Second, we include SMEs as well as initiatives by multinationals. Third, in Chapter 4 we conceptually advance and empirically test the central, yet criticized and previously untested, postulate on which BoP literature rests. This postulate is also referred to as the "doing well by doing good by means of the business model" proposition.

1.5 Objectives and outline

The chapters in this dissertation clearly delineate the shortcomings of the critical literature, their objectives, and their contributions. It is, however, important not to lose sight of the overall objective of this dissertation and to how the specific issues in the different chapters are related to the central objective.

Unfortunately, firm-level research on the private sector at the BoP has primarily remained exploratory and largely anecdotal. This can be explained by the practical difficulties of such research (cf. Hoskisson et al., 2000) and the fact that it has not been placed on the managerial and academic agenda until recently. As a result, while the private sector has shown increasing interest in building businesses at the BoP, there is little knowledge to guide these endeavors. More knowledge is a necessity as imperfections in markets, institutions, and firms' capabilities (cf. Chapter 5 and particularly Table 5.2), which generate high transaction costs, make success at the BoP anything but self-evident. Indeed, managers from the middle and top-of-the-pyramid may be locked in a biased mindset[5] and find it difficult to overcome cultural differences. Consequently, business practices may fail to develop the value that potentially exists at the BoP.

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[5] Prahalad and Hart (2002: 57) explicate six of such, often false, assumptions:

- "Assumption #1 The poor are not our target consumers because with our current cost structures, we cannot profitably compete for that market.
- Assumption #2 The poor cannot afford and have no use for the products and services sold in developed markets.
- Assumption #3 Only developed markets appreciate and will pay for new technology. The poor can use the previous generation of technology.
- Assumption #4 The bottom of the pyramid is not important to the long-term viability of our business. We can leave Tier 4 to governments and nonprofits.
- Assumption #5 Managers are not excited by business challenges that have a humanitarian dimension.
- Assumption #6 Intellectual excitement is in developed markets. It is hard to find talented managers who want to work at the bottom of the pyramid."

In response to this, the general objective of this dissertation is to increase knowledge on firms operating at the BoP. We contribute to an understanding of what it takes for for-profit firms to take a sustainable path that alleviates poverty. The lens used in this dissertation is that of the (strategic) business model concept (with the exception of Chapter 2) as the business model concept has often been suggested as the locus of innovation at the BoP (Arnold & Quelch, 1998; Chesbrough et al., 2006; Dawar & Chattopadhyay, 2002; Hart, 2005: 138; London & Hart, 2004; Prahalad, 2005; Seelos & Mair, 2007). This in contrast to, for example, a technology approach or approaching the BoP as a product design challenge, a marketing and distribution problem, or a judicial and institutional problem.

The rationale for the business model concept as the appropriate management construct for research at the BoP is that the characteristics of the poor, and the challenging circumstances in which firms operate, generate business challenges specific to the BoP context (e.g., Banerjee & Duflo, 2007; Hammond et al., 2007). Consequently, success at the BoP requires innovative business approaches of which the logic significantly differs from approaches used at other tiers of the pyramid. Prahalad (2005: 25) for example, suggests that "quantum jumps in price performance are required to cater to BoP markets" as are cost structures that are much lower than those at the top-of-the-pyramid[6]. But also disruptive innovation in distribution, value chain management, workflows, organization, payment schemes, customer education, and human resource management can be necessary. Hence, success at the BoP requires disruptive innovation of multiple aspects of the ways in which firms do business and thus "it seems highly unlikely that a single theoretical perspective may be able to explain strategic decisions" in the BoP and "an integrated approach that brings together various theories may be more fruitful" (Wright, Filatotchev, Hoskisson, & Peng, 2005: 11). As the business model concept takes such a holistic, multi-theoretical approach (cf. Chapter 3), which is necessary for firms to reevaluate the full logic of how they do business, it is seen, in existing BoP literature and in this dissertation, to be the right unit of analysis for firms in the BoP.

In sum, the overall objective of the dissertation reads:

To develop an understanding of the business models through which for-profit firms can include those living in poverty (as producers as well as consumers) and in this way seize

[6] For example, some business models offer 'shared access' or 'demand pooling' to accomplish these price-performance improvements. Prahalad (2005) gives the example of the eye care system of Aravind (cf. page 87), which provides high-quality, low-cost eye care and eye surgery enabled by a deeply understood and standardized process. Prahalad demonstrates that its quality is similar or even better than in the UK and the US. Yet, the price of a cataract operation ranges between $45 and $330 (costs of the surgery are about $25) compared to a price range of $2,500 to $3,000 in the USA and a price of $350 in private hospitals in India (Karnani, 2007b).

new business opportunities while simultaneously raising the standard of living of the poor. In other words, why, from a strategic business model perspective, do for-profit firms at the base-of-the-pyramid differ in their performance?

This objective led us to conduct the studies below. We conduct, what is to our knowledge, the first survey of BoP firms. We provide the first systematic examination of the organizational problems and opportunities for firms within the BoP and conduct the first empirical test of the central postulate underlying BoP literature. We reconceptualize how we describe and analyze businesses as a whole as we clarify and conceptually advance the strategic business model concept. We also develop the first wide-ranging management support model for developing profitable pro-poor business models. All chapters can be read as individual essays. Chapters 2 and 4 develop and empirically test BoP theory. Chapter 3 is conceptual in nature and can be read independently from the BoP context. Chapter 5 has a more managerial nature than the other chapters and consists of applied research.

1.5.1 Chapter 2: Discerning the organizational problems and opportunities at the base-of-the-pyramid: A classification and an investigation of contextual relationships

BoP literature argues that firms operating at the BoP face organizational problems and opportunities unlike those encountered in high-income markets. These are the result of the distinctive characteristics of the poor—such as a strong social orientation, low levels of education, and considerable heterogeneity in people—and the challenging circumstances in which firms at the BoP operate—such as thin capital markets, lack of well-defined property rights, and a high variability in infrastructure. Because of these BoP-specific organizational problems and opportunities, business initiatives at the BoP are said to require innovative business models. Although there is some anecdotal information on the organizational problems and opportunities for businesses within the BoP, a systematic examination has not been forthcoming.

The objective of Chapter 2 is to develop an empirically derived classification of the organizational problems and opportunities for firms operating at the BoP and to investigate how these differ at the different stages of a firm's development (also known as the organizational life cycle) and in different investment climates.

1.5.2 Chapter 3: The business model concept: A strategic management approach

As firms that focus on low-income groups face BoP-specific business challenges, "the fundamental challenge may be one of business model innovation—breaking free of established mindsets, systems, and metrics that constrain the imagination of incumbent firms" (Hart & London, 2005: 30). Indeed, the business challenges at the BoP may create the necessity of disruptive innovation of multiple aspects of the ways in which firms do business and thus "it seems highly unlikely that a single theoretical perspective may be able to explain strategic decisions" in the BoP and "an integrated approach that brings together various theories may be more fruitful" (Wright et al., 2005: 11). As the business model concept takes such a holistic, multi-theoretical approach, which is necessary for firms to reevaluate the full logic of how they do business, it is seen, in existing BoP literature and in this dissertation, as the correct means of analysis for firms at the BoP.

The objective of Chapter 3 is to clarify and conceptually advance the strategic business model concept. We aim to reconceptualize how we describe and analyze businesses as a whole. Chapter 3 is conceptual in nature. As this business model concept is not specific to the BoP, Chapter 3 has not been written as such and can be read independently from the BoP context.

1.5.3 Chapter 4: Can private businesses really build profitable and sustainable business models at the base-of-the-pyramid?

The central postulate underlying BoP literature states that for-profit firms operating at the BoP develop business model qualities that not only generate profits but their profit motive also drives them to create social and environmental value at the BoP, thereby creating sustainable business models. This central postulate is referred to as the "doing well by doing good by means of the business model" proposition. However, the validity of this central postulate has been questioned. Its rejection would question the value of BoP research. In spite of this, no empirical examination of this postulate has been forthcoming nor has its conceptual development received the appropriate attention it warrants. The postulate is therefore, ill-defined and further explanation and validation are essential.

The objective of Chapter 4 is to conceptually advance and empirically test the central, yet criticized and previously untested, postulate on which base-of-the-pyramid literature rests. We develop and test a theoretical framework that explicates the relationships between business model qualities and different types of firm performance. The framework and hypotheses build upon the conceptual work of Chapter 3.

1.5.4 Chapter 5: A management support model for developing profitable pro-poor business models at the base-of-the-pyramid

Although the private sector is showing increased interest in doing business at the BoP, there is little knowledge available to guide their endeavors. In response to this, the objective of Chapter 5 is to build a management support model that offers managers and entrepreneurs a basis for developing profitable pro-poor business models at the BoP. To this end, we address the question of why some business models at the BoP fail whilst others succeed.

1.5.5 Chapter 6: Conclusions and directions for future research

Finally, Chapter 6 provides a summary of the main conclusions and stipulates an agenda for future research on doing business at the BoP.

Chapter 1	Introduction to the motivation of the dissertation, the positioning of the subject and the formulation of objectives			
	Research Objective	*Explained Variable*	*Theoretical Perspective*	*Methodology*
Chapter 2	To develop an empirically derived classification of organizational problems and opportunities for firms operating at the BoP and to investigate the contextual relationships on these organizational problems and opportunities.	Business challenges	Organizational problems and opportunities	In-depth interviews Survey (own and World Bank) Content analysis Card-sorting exercise Multidimensional scaling Chi-square analysis Logistic regression analysis
Chapter 3	To clarify and conceptually advance the strategic business model concept.	Strategic business model: Value creation, value appropriation, and future viability	Sustainable competitive advantage Complexity theory (multiscale analysis and the distinction between components and linkages) Integration of multiple managerial schools of thought	Conceptual essay Literature review
Chapter 4	To conceptually advance and empirically test the central postulate underlying BoP literature that for-profit firms operating at the BoP develop business model qualities that not only generate profits but their profit motive also drives them to create social and environmental value at the BoP.	Sustainable performance	Strategic business model Sustainability (Triple P performance)	In-depth interviews Survey Structural Equation Modeling
Chapter 5	To build a management support model for developing profitable pro-poor business models at the BoP. To this end, we build an understanding of why some business models at the BoP succeed whilst others fail.	Sustainable performance	Strategic business model Strategic management Development economics Anthropology	Based on the previous chapters Literature study Case reviews
Chapter 6	Conclusions: summary of the main findings, implications, and suggestions for further research			

Table 1.3: Outline of dissertation

CHAPTER 2: Discerning the Organizational Problems and Opportunities at the Base-of-the-Pyramid: A Classification and an Investigation of Contextual Relationships*

Abstract

Previous research argues that firms inclusive of low-income people—i.e., of the base-of-the-pyramid—face problems and opportunities unlike those faced in high-income markets. This renders existing classifications of organizational problems and opportunities inaccurate. In cooperation with NGOs, development organizations, and micro finance institutions, we collected a unique dataset of 143 firms operating in base-of-the-pyramid markets across the globe in a total of 105 countries. We examine the validity of existing classifications of organizational problems and opportunities and extend the theory with a new classification appropriate for firms operating amongst low-income people. The results support organizational problems and opportunities to be related to the stage of firm development and to a region's investment climate. Implications of our findings for both theory and practice are discussed (cf. Table 2.2).

* The cooperation of the organizations that have given us the opportunity to administer a survey amongst their business contacts is gratefully acknowledged. The helpful comments on earlier versions of Harry Commandeur, Patrick Groenen, Ernst Verwaal, Pursey Heugens, Frans van den Bosch, and Fred Langerak are also acknowledged with gratitude.

2.1 Introduction

Executives spend much time identifying, learning, and strategizing about the organizational problems and opportunities at hand (Cowan, 1990; Nutt, 1984). In fact, the way firms deal with their organizational problems and opportunities may, for a large part, explain their performance and growth (Thomas, Clark, & Gioia, 1993). It is therefore not surprising that management literature has identified various categories of organizational problems and opportunities (e.g., Chan, Bhargava, & Street, 2006; Cowan, 1990, 1991; Dodge, Fullerton, & Robbins, 1994; Huang & Brown, 1999; Kazanjian, 1988; Smith, 1995; see Table 2.1). One area of research has shown particular interest in the organizational problems and opportunities lying at what is known as the bottom or base-of-the-pyramid (BoP). This BoP literature examines businesses that include low-income people, i.e., businesses of which the focal group of customers, employees, suppliers, and/or distributors live in poverty (London & Hart, 2004; Prahalad, 2005).

But is there something unique about the BoP context that legitimizes it as a field of research? One answer in BoP literature is that firms that include those living in poverty face problems and opportunities that are unlike those faced in high-income markets (e.g., Arnold & Quelch, 1998; Dawar & Chattopadhyay, 2002; de Soto, 2000; London & Hart, 2004; Prahalad, 2005). This determines which strategies are effective for these firms. In fact, it suggests that business initiatives at the BoP require innovative business models and new mental maps to manage these organizational problems and opportunities (Chesbrough, Ahern, Finn, & Guerraz, 2006; Dawar & Chattopadhyay, 2002, Hart & Christensen, 2002, Hitt, Li, & Worthington IV, 2005; Hoskisson, Eden, Lau, & Wright, 2000; London & Hart, 2004; Prahalad, 2005, WBCSD, 2004). Therefore, if there were indeed BoP-specific organizational problems and opportunities, these would render existing classifications of organizational problems and opportunities inaccurate for firms operating at the BoP, and would provide legitimacy for the BoP context as a field for academic research.

Although there is some anecdotal information on the organizational problems and opportunities for businesses within the BoP (e.g., Chesbrough et al., 2006; Seelos & Mair, 2007; WBCSD, 2004), a systematic examination has not yet been forthcoming. In response, the objective of this study is to address this research gap and to develop an empirically derived classification of organizational problems and opportunities for firms operating at the BoP. In this way, we will contribute to BoP literature and to the theory of organizational problems and opportunities. We will contribute to the theory of organizational problems and opportunities by examining the accuracy of existing classifications in a context for which it is argued that existing classifications are inaccurate. We will extend this theory with a new classification for firms that operate at the BoP. Furthermore, while existing research has mainly used theory-driven classifications (e.g., Dodge et al., 1994; Rutherford et al., 2003), we will present an empirically developed classification of organizational problems and opportunities. A theory driven approach would be limited by the fact that if business challenges at the BoP indeed differ significantly from those at the higher tiers of the socio-economic pyramid, researchers, whose mental maps have been shaped outside the BoP, might not be able to, a priori, think of the relevant business challenges. An empirically driven practitioner's perspective, on the other hand, is highly appropriate given that executives' daily schedules consist, for a large part, of dealing with organizational problems and opportunities (Cowan, 1990; Nutt, 1984). It is important also that we explicitly approach business challenges as problems *and* opportunities, which together we refer to as business challenges. Existing studies, however, only mention problems, probably because managers are threat oriented and "people conceive of most decisions as problems" (Cowan, 1990: 370; Jackson & Dutton, 1988; Nutt, 1984). However, such an approach could limit the classification. Lastly, we take a multilevel approach in the investigation of the antecedents of the business challenges. With the exception of the organizational life cycle, previous research has not examined antecedents of business challenges' importances. In addition to the firm-level variable of the organizational life cycle, we study the location-level variable of the investment climate.

This study also contributes to BoP literature. We examine the BoP context, from an organizational problem and opportunity perspective, and determine whether it differs from high-income markets. By examining the context's uniqueness, we aim to provide justification for the BoP context as a field for academic research. The BoP has become a progressively important issue on the political and managerial agenda (e.g., Pearce, 2005). This can be seen by the introduction of the Millennium Development Goals (Sachs, 2005a), which the United Nations has set to be achieved by 2015, and the attention it has received from leading international organizations (e.g., UNDP, World Bank, and World Resources Institute). However, research on the BoP at the firm level has, for most part, relied almost exclusively on case studies. This can be attributed to the practical difficulties of conducting research on the BoP (cf. Hoskisson et al., 2000) and the fact that it had not been placed on the managerial agenda until recently. As a result, although the private sector has shown an increased interest in doing business at the BoP, there is little knowledge available to guide their endeavors. This study makes a modest contribution to filling this gap in knowledge by collecting unique empirical data and by building an understanding of the business challenges and their contextual relationships at the BoP. This may help firms strategize and prepare for business at the BoP and help non-governmental and governmental organizations in developing policies to assist the private sector in its endeavors. Moreover, with a comprehensive and rigorous classification of business challenges, we provide an empirical foundation for future studies on the conceptualization and systematic study of distinct business challenges (Terpstra & Olson, 1993). These include the frequencies with which firms are confronted with particular categories of business challenges, the characteristics associated with these categories, the potential bottlenecks in firm development, and the impact government policies have on firms' business challenges.

We proceed as follows. First, in the theory section we conceptually anchor our research in literature on organizational problems and opportunities as well as in literature on the BoP. Next, we advance our arguments and hypotheses with regard to contextual relationships with firms' business challenges. The methodology section provides details of the procedures, data collection, and measurement. Finally, we discuss our results and formulate implications for theory and practitioners.

2.2 Theory and hypotheses

Business challenges—i.e., organizational problems and opportunities—arise in response to market opportunities and threats as well as to internal strengths and weaknesses. They are demanding and stimulating management activities with corresponding objectives, the attainment of which is key to the organization's performance and/or market position (cf. Ansoff, 1980; Heugens, 2005: 490; King, 1982; Thomas, Shankster, & Mathieu, 1994). We thus refer to business challenges as management activities that are demanding and test an organization's abilities and skills (cf. Hornby, 2000). For example, one business challenge could be "to recruit highly skilled employees". Although previous research on business challenges has primarily focused on them as organizational problems (e.g., Cowan, 1990; Kazanjian, 1988; Terpstra & Olson, 1993), we take a broader stance and, in addition to organizational problems, take into account organizational opportunities (cf. Cowan, 1990; Kazanjian, 1988; Nutt, 1984; Terpstra & Olson, 1993). Table 2.1 lists several existing classifications of business challenges, or more specifically organizational problems.

Table 2.1: Classification frameworks of organizational problems of non-BoP firms

Authors	**Dimensions of Classification**
Chan, Bhargava, and Street (2006)	Customer management and marketing (customer service, customer relations, customer management, product marketing); managing business growth and development (managing growth and expansion, process improvement, managing change, product development, developing external networks, long-range planning, business planning, other management-related issues); financial management (managing costs, managing profitability, managing cash, sourcing capital, financial, other financial management issues); leadership (leadership, managing organizational culture); human resource management (attracting management and staff, human resources management, employee development, management/executive development, succession planning, staff retention); external environment (economy, monitoring the competition, regulatory/legislative issues, market uncertainty, industry changes).
Cowan (1990)	Personnel-human resources; strategy; operations; marketing; production; MIS-data processing; external-environmental; communications; customer; accounting; management.
Dearborn and Simon (1958)	Sales, marketing, or distribution; clarifying the organization; human relations, employee relations, or teamwork.
Dodge, Fullerton, and Robbins (1994)	External: customer contact; market knowledge; market planning; location; pricing; product considerations; competitors; expansion. Internal: Adequate capital; cash flow; facilities/equipment; inventory control; human resources/personnel; leadership/direction; organizational structure; accounting system.
Huang and Brown (1999)	Obtaining external financing; internal financial management; sales/marketing; product development; production/operation management; general management; human resource management; organization structure/design; economic environment; regulatory environment; export.
Kazanjian (1988)	Organizational systems (developing management information systems, controlling costs, financial systems and controls, defining organizational roles and responsibilities, and administrative burdens and red tape); sales/marketing; people (attracting capable personnel and finding talent, and achieving management depth); production (meeting demand, and developing reliable vendors and suppliers); strategic positioning; external relations (securing financial resources and backing, and acquiring key outside advisers and board members).

Smith (1995)	Mission, goals, and roles (issues regarding the basic purpose and identity of an agent); policies, procedures, and systems (concerns about an organization's ways of doing things); organization structure (issues regarding arrangement of subunits and responsibilities); authority and control (concerns about the distribution and exercise of authority); resources (problems involving the organization's assets or capacities); strategy and planning (concerns about the planning done prior to initiating an activity); implementation and change (concerns about the implementation of new activities and the organization's response to change); evaluation (difficulty in assessing the performance of activities or the merit of alternatives); motivation and incentives (situations explained by the lack of motivation and incentives for agents); communication (inadequate exchange of information between agents); co-operation and co-ordination (inadequate integration of the activities of agents); inter-agent relations (concerns about interactions among agents); individual (problems due to characteristics of an involved agent); management (situations resulting from ineffective management).
Terpstra and Olson (1993)	Obtaining external financing; internal financial management; sales/marketing; product development; production/operations management; organization structure/design; general management; human resource management; economic environment; regulatory environment.
Walsh (1988)	Accounting-finance; human relations; marketing; internal management; external management.

Below we develop hypotheses on the business challenges at the BoP, their contextual relationships, and the business challenges' threat/opportunity quotient as well as the perceived feasibility of action in response to the business challenges as hypothesized for the BoP context. An overview of the hypotheses is presented in Table 2.2.

2.2.1 Business challenges at the base-of-the-pyramid

The BoP refers to a socioeconomic group of deprived people that forms the "underclass" of society (e.g., Hart, 2005; London & Hart, 2004; Prahalad, 2005). For practical reasons, it is often defined as those who live on US$2 or less a day (e.g., London & Hart, 2004; Prahalad & Hammond, 2002), which is 2.6 billion people (in 1993 purchasing power parity)—more than half of the world population—according to the World Bank's World Development Indicators 2006. The firms that this study focuses upon have built their business model focused at the people at the BoP, thereby including low-income people as employee, customer, distributor, and/or supplier. Previous research suggests that the private sector can provide the poor with opportunities to overcome poverty, access to products and services, empowerment, self-esteem, and hopes for a better future. It has also been claimed that the private sector itself can benefit from this, as the latent entrepreneurial

Table 2.2: Overview of hypotheses, methodology, and results

Hypothesis-topic	Data Source	Methodology	Conclusions and Implications
H1. Classification of business challenges at the BoP	Survey	Content analysis Open card-sorting exercise with eight experts Multidimensional scaling	- We find support for the notion of BoP-specific business challenges. - Classifications of business challenges are context dependent. - Operating at the BoP may require business model innovation. - Managers/entrepreneurs from the middle and the top-of-the-pyramid need to develop new mental maps. - At an abstract level there remains a strong link between the business challenges at the BoP and the business challenges in high-income markets. Therefore, innovations made by firms at the BoP may also be relevant at the middle and the top-of-the-pyramid, and BoP firms could become the future competitors of incumbent firms at the middle and the top-of-the-pyramid. Competitive advantage in high-income markets depends on factors including lessons learned in BoP markets.
H2. Contextual relationship of the organizational life cycle with the business challenges	Survey	Chi-square difference test	- Some of the business challenges change in importance as firms move through the organizational life cycle, while others do not. - A potential exists for firms to create an organizational learning cycle as business challenges change in importance and/or as their content changes. - Changes in business challenges' importances may explain why some firms make the transition from one stage of development to another while others fail. - Stages of the organizational life cycle may be partly fluid, rather than well-separated from each other, with business challenges overlapping in adjacent stages. - Some business challenges are more prevalent than others during all the stages of the organizational life cycle, suggesting there is a hierarchy of business challenges. - Managers need to pay attention not only to the absolute importances of business challenges within a stage of the organizational life cycle but also to how importances differ from one stage to another.

Hypothesis-topic	Data Source	Methodology	Conclusions and Implications
H3. Contextual relationship of the investment climate with the business challenges	Survey World Bank's Enterprise Survey	Logistic regression analysis	- The local infrastructure, financial system, level of rent predation, and openness to international trade are related to business challenges' importances. - Multilevel effects: there are processes and conditions that produce business challenges at work at more than one level of analysis (firm-level as well as location-level relationships). - Operating in different geographical regions requires business models that are able to manage different conditions. - Firms cannot automatically export successful business models from one location to another without taking into account differences in infrastructure, financial system, level of rent predation, and openness to international trade.
H4. Extent to which business challenges at the BoP are perceived as opportunities versus threats and the level of perceived feasibility of action	Survey	T-test	- Managers perceive business challenges as opportunities just as much as threats, and perceive adequate possibilities to manage the business challenges. - There is a certain urgency for firms to enter the BoP thoughtfully (e.g., through small scale experiments) rather than to deliberate sensibly but endlessly over such action.

drive, motivation, and collective purchasing power within the BoP can provide it with new growth opportunities, greater efficiency, and access to a source of innovation (Brown, 2005; Chambers, 1997; Christensen, Craig, & Hart, 2001; de Soto, 2000; Hart & Christensen, 2002; Prahalad & Hammond, 2002; World Bank, 2005). Others have questioned the validity of these claims and criticize BoP literature for overemphasizing the poor as consumers instead of as producers, for unjustifiably assuming that the poor are value conscious, for a lack of attention to the role of SMEs, for a slant towards Western ideals of success and development, and for exaggerating the size of the BoP in number of people as well as in terms of purchasing power parity (e.g., Jenkins, 2005; Karnani, 2007a,b; Landrum, 2007; Walsh, Kress, & Beyerchen, 2005).

BoP literature argues that firms inclusive of those living in poverty, face problems and opportunities that are unlike those faced in high-income markets (e.g., Arnold & Quelch, 1998; Dawar & Chattopadhyay, 2002; de Soto, 2000; London & Hart, 2004; Prahalad, 2005). These business challenges result from the characteristics of the BoP, which can differ significantly from those of wealthier people. In Table 5.2 on page 142 we present an overview of the characteristics of the BoP that set it apart from the other, higher, tiers of the pyramid. Not all of these characteristics are without controversy though. Karnani (2007b) for example criticizes BoP literature for romanticizing the BoP as resilient and creative entrepreneurs, and for unjustifiably assuming the poor to be value conscious consumers.

By shaping firms' business challenges, the characteristics of the BoP generate business challenges that are specific to the BoP context. This renders existing classifications of business challenges inaccurate for firms operating at the BoP. Indeed, although management literature contains various classifications of business challenges (e.g., Chan et al., 2006; Cowan, 1990, 1991; Dodge et al., 1994; Huang & Brown, 1999; Kazanjian, 1988; Smith, 1995), these are developed within the context of the top of socio-economic pyramid rather than within the context of the base-of-the-pyramid.

We thus argue that the characteristics of the BoP affect firms' business challenges and generate challenges specific to the BoP context. As means of illustration:

1. Firms operating at the BoP may be confronted with cognitive challenges, as there might be "a reluctance of poor people to commit themselves psychologically to a project of making more money" (Banerjee & Duflo, 2007: 165).
2. Letelier, Flores, and Spinosa (2003: 80-81) mention the challenge of building trust: "because these [i.e., poor] consumers are frequently unaccustomed to exchanges among transactional equals and live in highly suspicious, non-consumerist communities, businesses will have to develop customer engagement processes focused on building and sustaining trust. The business has to balance familiarity with the novelty of its ways of working."

3. The low level of individual income at the BoP requires firms to build products that are functional, lasting, and basic and to produce large volumes in order to seize economies of scale (Dawar & Chattopadhyay, 2002). Yet, although economies of scale may be vital to reduce costs sufficiently to sell products/services to the BoP, Karnani (2007b: 96) states that "markets of the rural poor are often geographically and culturally fragmented; this combined with weak infrastructure makes it hard to exploit scale economies".
4. The entrepreneurial drive and motivation within the BoP may provide firms with opportunities to deal with heterogeneity at a local level. More specifically, firms may be able to use local entrepreneurs to localize part of the value creation, thereby adjusting the value proposition to local conditions and needs, which may vary significantly from one area to another (Dawar & Chattopadhyay, 2002; Hoskisson et al., 2000).
5. Low labor costs and shortages of skilled labor can generate opportunities by deskilling work and making work more labor intensive.
6. To enable the BoP to participate as consumer or producer in a firm, that firm may have to build transaction governance and local capacity within communities in which it operates, such as roads, hospitals and schools (Prahalad, 2005).

In sum, given the above arguments, we hypothesize that because of the specific characteristics of the BoP, firms operating at the BoP face organizational problems and opportunities that are also specific to the BoP context (e.g., Chesbrough et al., 2006; Hoskisson et al., 2000; London & Hart, 2004):

Hypothesis 1. Firms operating at the base-of-the-pyramid face business challenges that are specific to the base-of-the-pyramid context.

2.2.2 Firm-level and location-level differences in business challenges

Internal contextual factors: Organizational life cycle. Theory and empirical research on the organizational life cycle state that organizations develop through a predictable sequence of stages (Greiner, 1972; Miller & Friesen, 1984). Although the number of distinguishable stages differs among researchers, they typically reflect a linear sequence through stages such as startup, growth, maturity, and decline. Each stage arises from *internal* contextual factors such as age, growth rate, and size (Hanks, Watson, Jansen, & Chandler, 1993; Rutherford et al., 2003).

Several studies connect the organizational life cycle to organizational problems, and empirical evidence supports the notion that organizational problems vary during the different stages of the organizational life cycle (e.g., Chandler, 1962; Dodge et al., 1994; Hannan & Freeman, 1984; Kazanjian, 1988; Olson, 1987; Rutherford et al., 2003; Sleuwaegen & Goedhuys, 2002; Stubbart & Smalley, 1999; Terpstra & Olson, 1993). The organizational life cycle is of interest to business challenges because as decision makers become more familiar with business challenges, their abilities and routines to deal with these challenges increase as well (Starbuck, 1983). "Unfortunately, as decision makers move higher on the experience curve, the organization continues to make its transition through the organizational life cycle. The question is, does this movement bring forth new *business challenges* and/or rearrange the relative importance of previously recognized *business challenges*" (Dodge et al., 1994: 122).

The differing internal contextual factors of the different stages of the organizational life cycle have been found to bring with them differences in organizational behavior (e.g., Jawahar & McLaughlin, 2001; Milliman, Von Glinow, & Nathan, 1991), organizational strategy (e.g., Anderson & Zeithaml, 1984), organizational form and structure (e.g., Greiner, 1972; Hanks et al., 1993; Kazanjian, 1988; McKelvey & Aldrich, 1983), and performance (e.g., Anderson & Zeithaml, 1984; Quinn & Cameron, 1983; Smith, Mitchell, & Summer, 1985). These, as well as the differing internal contextual factors, make organizational problems and opportunities differ between the stages of the organizational life cycle (e.g., Churchill & Lewis, 1983; Dodge et al., 1994; Terpstra & Olson, 1993). Worded differently, we hypothesize that firms in different stages of development—whether startup, accelerated growth, steady growth, or stability/decline—face different business challenges.

Hypothesis 2. The importances of the business challenges of firms at the base-of-the-pyramid vary across the stages of the organizational life cycle.

External contextual factors: Investment climate. Not everyone agrees that patterns in business challenges can be differentiated on the basis of internal factors (Chan et al., 2006; Dodge et al., 1994; Kazanjian, 1988; Kanzanjian & Drazin, 1989). Penrose (1952) and Rhenman (1973) argue that they may rather be the product of *external* contextual factors. External contextual factors that create recurring cycles and patterns of business challenges include technological changes, shifts in customer preferences, governmental regulations, and the level of competition (Curren, Folkes, & Steckel, 1992; Dodge et al., 1994).

By and large, those at the BoP live in developing countries. Previous papers have argued that in these countries particularly the challenging nature of the investment climate shapes firms' business challenges (Globerman & Shapiro, 2003; Hitt et al., 2005; Hoskisson et al., 2000; World Bank, 2004). Therefore, we examine the relationship between the investment climate and firms' business challenges in order to understand the effect of external contextual factors.

For instance, firms may be confronted with a poorly developed infrastructure (Arnold & Quelch, 1998; Doh & Ramamurti, 2003) and thin capital markets (Jenkins & Thomas, 2002; Wright, Filatotchev, Hoskisson, & Peng, 2005). Dawar and Chattopadhyay (2002) discuss how variability in consumers and infrastructure requires flexibility from firms' marketing programs. Yet, limited availability of communication channels makes marketing even more difficult (Arnold & Quelch, 1998).

The informal sector in developing countries is large. This is particularly true at the BoP because of the costs and complications for entrepreneurs to become part of the formal economy (de Soto, 2000). As a result of this, the informal economy as a percentage of official GDP in the year 2002/2003 is estimated at 39 percent in developing countries and 40 percent in transition economies (Schneider, 2006). The large informal economy is also upheld by the lack of well-defined property rights. De Soto (2000: 35) estimates that at least \$9.3 trillion of real estate is held by the poor as what he calls "dead capital"—i.e., the rights to resources are not adequately registered so people cannot readily capitalize on the full value of these resources.

Another challenging condition is the uncertainty arising from economic and political instabilities (Hoskisson et al., 2000; Jenkins & Thomas, 2002). Business regulations may change frequently and regulatory discipline may be lacking (Arnold & Quelch, 1998). Transition economies are especially receptive to changes in market conditions and may require strategic flexibility from firms to take advantage of the opportunities that the changes bring (Uhlenbruck, Meyer, & Hitt, 2003). Scarcity of market data, widespread product counterfeiting, and opaque power and loyalty structures further enhance the uncertainty and risk for firms (Arnold & Quelch, 1998).

Moreover, institutional infrastructures and legal frameworks may be weak (Globerman & Shapiro, 2003; North, 1990; Wright et al., 2005), which makes law enforcement more difficult and allows corruption to persist (World Economic Forum, 2004). Corruption and rent predation can be constraining forces within the investment climate and these can generate challenging situations for firms (Robertson & Watson, 2004; Rodriguez, Uhlenbruck, & Eden, 2005; Uhlenbruck, Rodriguez, Doh, & Eden, 2006). This may partly explain why formal contracts are less important at the BoP, where relationships are based on social contracts (de Soto, 2000). Although these social contracts are not documented, they are recognized and protected (London & Hart, 2004).

Lastly, the openness to trade within a country or region can affect a firm's business challenges and performance. This applies to both national and international firms (Rajan & Zingales, 2003; Svaleryd & Vlachos, 2002). For example, trade openness can provide firms with access to new sales markets and input markets. However, international markets and trade agreements may have put certain requirements into place, which, given the context of the BoP, may be difficult to achieve. At the same time they may augment the level of competition in developing countries (Stiglitz & Charlton, 2005).

In sum, the challenging investment climate in locations where most of the BoP is, influences which problems and opportunities firms can expect to encounter. Hence, business challenges arise not only in response to internal contextual factors—in the form of the organizational life cycle—but also in response to external contextual factors—in the form of the investment climate (cf. Dodge et al., 1994). These arguments lead to our next hypothesis:

> *Hypothesis 3. The importances of the business challenges of firms at the base-of-the-pyramid vary across different investment climates (i.e., quality of the infrastructure, quality of the financial system, degree of rent predation, and/or the openness to international trade).*

The hypothesis is formulated in a rather general way so as not to pre-empt the classification of business challenges, which we aim to develop a posteriori. In compensation, in the results section we not only report the relationships that we find but also touch on possible explanations for these relationships.

2.2.3 Business challenges' threat/opportunity quotient and feasibility of action

Sensemaking of business challenges has received a lot attention in literature. Executives' formulation and interpretation of business challenges have been found to affect information processing, decision making, strategic change, organizational learning, and management performance (e.g., Chattopadhyay, Glick, & Huber, 2001; Cowan, 1990; Daft & Weick, 1984; Ginsberg & Venkatraman, 1992; Jawahar & McLaughlin, 2001; Nutt, 1998; Sharma, 2000). Attention has also been paid to how interpretation is affected by a firm's strategy and organizational configuration (Thomas & McDaniel, 1990; Thomas et al., 1994), information gathering (Anderson & Nichols, 2007), individuals' and executives' characteristics (Day & Lord, 1992; Mohammed & Billings, 2002), culture (Barr & Glynn, 2004; Schneider & DeMeyer, 1991), and team composition (Bantel & Jackson, 1989; Thomas et al., 1994). Scholars such as Dutton and Duncan (1987), Ginsberg and Venkatraman (1992), and Thomas et al. (1994) have proposed several criteria that managers use in evaluating and interpreting business challenges. Two of the most prominent criteria are the labeling of business challenges as threats versus opportunities, and the perceived feasibility of action in response to business challenges (Julian & Ofori-Dankwa, 2007). Jackson and Dutton (1988) found that challenges characterized as opportunities are seen as positive, controllable, and involving potential gain, while threats are seen as negative, uncontrollable, and involving potential loss. Both are associated with urgency, difficulty, and high stakes.

As we already indicated, the characteristics of the people and the business environment at the BoP not only cause difficulties but, if the benefits are appreciated, also provide opportunities. For example, we mentioned that the low cost of labor and shortage of skilled labor could be used to a firm's advantage by deskilling work and making work more labor intensive. Similarly, many microfinance business models utilize the power of social control by lending money to groups of people rather than to individuals. The large amount of dead capital present in the BoP can also offer significant opportunities when made productive, as does the considerable purchasing power within the BoP as a collective (cf. Hammond, Kramer, Katz, Tran, & Walker, 2007). Further, although firms may regard the lack of existing markets at the BoP as a problem, as they may need to build the entire ecosystem around their product, they can also regard it as an opportunity. The lack of existing markets not only means that firms may need to create the markets themselves—e.g., by educating people how to behave as consumers (Letelier et al., 2003; Mahajan, Pratini De Moraes, & Wind, 2000)—but also that competition at the BoP may largely consist of non-consumption and thus people will not first have to unlearn nor are they locked into a current consumption pattern. This significantly eases the adoption and diffusion process. Moreover, although these people have been forced into the informal economy, it is "an immense and fast-growing economic system that includes a thriving community of small enterprises, barter exchanges, sustainable livelihoods activities, subsistence farming, and unregistered assets" (London & Hart, 2004: 353)—all circumstances that can be used to a firm's advantage. These examples illustrate the opportunities for firms within the characteristics of low-income people and the business environment within the BoP. Therefore, we hypothesize that the BoP context represents opportunities for firms rather than problems, and business challenges are manageable rather than unmanageable. This leads to our last two hypotheses:

Hypothesis 4a. Managers of firms at the base-of-the-pyramid perceive the business challenges that their firms face more as opportunities than as threats.

Hypothesis 4b. Managers of firms at the base-of-the-pyramid have a positive perception of the feasibility of action in response to business challenges.

2.3 Methods

2.3.1 Survey procedure

We conducted a survey among firms that have built their business model focused at the BoP. These are firms whose focal group of customers, employees, suppliers, and/or distributors have an average daily purchasing power of $2 or less. Hence, in response to recent criticism on BoP literature (e.g., Karnani, 2007a,b; Landrum, 2007), the sample includes firms targeted at the poor as consumers as well as firms targeted at the poor as producers (or both). In addition, we exclusively focused on for-profit businesses; firms included in this study intended to be profitable or at least self-financing through revenue generation. Philanthropic enterprises were thus excluded. The firms were Western as well as local in origin and we included SMEs as well as initiatives by multinationals. One additional criterion was that firms should have at least 10 employees. Respondents themselves held a general strategic position within the firm. To ensure a clear unit of analysis, the respondent was instructed to fill in the questionnaire for a single enterprise, which should fit the above criteria (e.g., a specific business unit, a specific joint venture, etc., or the entire firm if the firm did not consist of multiple clearly distinguishable enterprises).

Fourteen organizations[7] cooperated in this study and provided us with contact details and the person to contact in 518 firms that they believed fitted the above criteria. The diversity in the focus of these fourteen organizations (different industries, different countries, national as well as international organizations, SMEs and multinationals), their differences in origin (western and nonwestern), and different types of organizations (NGOs such as business networks, governmental organizations such as development organizations, and micro finance institutions) all added to the creation of a representative sample.

We followed the survey procedures as laid out by Dillman (2000). Five days after we sent respondents a pre-notice letter, we sent them a questionnaire with a cover letter from us, a letter of support from the sponsor who had provided the contact details, and a reply envelope with an international business reply number printed on it. Subsequently, a week later we sent a thank-you/reminder postcard and some time later—depending on the estimated delivery time of the postal service—if the firm had not yet responded we sent an email. We then sent a replacement questionnaire and, as a final reminder, we phoned them. Respondents were assured confidentiality.

Five organizations added steps to the above procedure because they expected difficulties in the delivery of questionnaires, they wanted to enhance the response rate, and/or they wanted to ensure that respondents with minor or no English skills were included. These five organizations visited the firms to request their participation and three

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[7] World Business Council for Sustainable Development (WBCSD); Enterprise Ethiopia and Enterprise Uganda as part of UNCTAD-Empretec; SNV Cameroon Development Organisation and SNV Honduras Development Organisation as part of SNV International Development Organisation; Agency for International Business and Cooperation (EVD) (PSOM program); Business in Development (BiD) / NCDO; African Institute of Corporate Citizenship (AICC); Instituto Ethos de Empresas e Responsabilidade Social; PRIDE Tanzania as a partner of FMO; Cordaid; Oxfam Novib; and ICCO. The World Resources Institute kindly gave us permission to use the contact details on its website.

of the organizations arranged for an interviewer to be present to help respondents complete the questionnaire. One organization translated the questionnaire. These steps helped ensure that all respondents understood the questionnaire correctly and enabled us to include people who did not speak English.

Of the 518 firms, 84 responded that they did not fit the study's profile criteria, 14 pre-notice letters were returned as undeliverable, and nine firms responded that their level of English was insufficient to participate (while we did not have a participating organization in that region to assist them with the questionnaire). Of the remaining 411 firms, a total of 162 questionnaires were returned. Nineteen of these questionnaires were deemed to be of insufficient quality by the authors. This resulted in 143 usable questionnaires for the analyses, which corresponds to an effective response rate of 34.8 percent.

To test for nonresponse bias, we examined differences between early and late respondents (median split) (Armstrong & Overton, 1977). We did not find any significant differences ($p > .35$) between the two groups based on the number of employees, industry, firm tenure, firm performance, or any of the model variables.

2.3.2 Measurement and validation of constructs

We undertook several measures to ensure the reliability and validity of the data (Churchill, 1999). On the basis of a literature study, continuous discussions with peers, and conversations with managers from organizations that work closely with firms at the BoP, we developed questions and generated pools of items for each construct. Where possible, we used existing items with proven validity. We pre-tested the questionnaire by seeking comments from academics and managers from organizations that focus on supporting firms that operate at the BoP. Then, we conducted six in-depth face-to-face interviews, which lasted between one and three-and-a-half hours, during which a senior manager of a firm at the BoP was asked to complete the questionnaire, indicate any ambiguity, elaborate on the story behind his or her answers, and was invited to suggest improvements to the questionnaire. After the fourth interview almost no further changes were necessary, and after the last two interviews we made no changes to the questionnaire. Finally, we conducted a pilot study amongst 70 firms, which are included in the total sample size of 518; we made no changes to the questionnaire after this pilot study.

Dependent variable: Business challenges. Having given the definition of business challenges, we asked the respondent to write down a description of the three most important business challenges facing the firm. Hence, we asked an open-ended question and developed the classification of business challenges a posteriori (cf. Dodge et al., 1994; Kazanjian, 1988; Terpstra & Olson, 1993) in an attempt to capture a wider range of business challenges (Terpstra & Olson, 1993), to tap into executives' natural language (Cowan, 1990), and to ensure we imposed western cognitive maps on managers as little as possible.

To facilitate our understanding and interpretation of the descriptions given by respondents, they were asked to rate each business challenge that they described on 11 attributes on a seven-point bipolar scale, and to provide the firm's Internet address as background information, if available. In general, the descriptions of the business challenges were sufficiently clear to interpret them without these aids. The attributes are available from the authors. One of the attributes was the extent to which respondents regarded the business challenges as a "threat to the organization" (1) versus as an "opportunity for the organization" (7) (Dutton & Jackson, 1987; Ginsberg & Venkatraman, 1992; Jackson & Dutton, 1988). An increase in the threat/opportunity quotient thus indicated more opportunities. Another attribute was the extent to which respondents perceived that action in response to the business challenge was feasible (ranging from "minimally feasible" (1) to "extremely feasible" (7)) (Dutton & Duncan, 1987; Ginsberg & Venkatraman, 1992). These two attributes enable us to test Hypothesis 4.

Independent variable: Stage in the organizational development life cycle. Respondents were asked to identify the variable that best described their firm's current stage of development so that we could assess the firm's stage of organizational development consistent with Lumpkin and Dess (1995). A distinction was made between startup, accelerated growth, steady growth, and stability/decline. The stages of stability and decline were initially measured as separate stages but because of a low number of observations in the stage of decline, these two stages were taken together.

Independent variable: Investment climate. The World Bank Group provided access to data from the World Bank Enterprise Survey, which consists of over 500 indicators, is conducted in 84 countries, and holds information on more than 41,000 firms (Batra, Kaufmann, & Stone, 2003; World Bank, 2004). We used these data to create four indices for the investment climate in a region (i.e., a country or a specific region in a country): its Infrastructure, Financial system, Rent predation, and International trade. The indices and indicators are presented in Appendix 2.I. We applied four criteria in the development of these indices. First, the starting point was a selection of indicators and dimensions that the World Bank uses in its own studies. Second, we excluded subjective indicators because these are affected by different cultures' tendency to complain. Third, the indicators had to have been collected for most of the countries. Fourth, we refined the indices by removing indicators with high variance inflation factor (VIF) scores (Diamantopoulos & Winklhofer, 2001), which are now all well below the rule-of-thumb cutoff of 10 (Neter, Wasserman, & Kutner, 1990).

Respondents were asked to tick the countries and—because there can be significant differences within a country—the regions within these countries in which their firm operates. Using the World Bank's Enterprise Survey data, we computed the investment climate in which each respondent operates as the sum of the standardized scores of the indicators in each of the four indices. Firms that operated in more than three countries were excluded from the analyses that included the investment climate. As the World Bank does not use exactly the same questionnaire in each country, we imputed values for those indices for which the World Bank did not measure the items. To this end, we used regression imputation, adding random error terms from the observed residuals of complete cases to the regression estimates (Little & Rubin, 1987).

2.4 Analyses and results

Table 2.3 provides a summary of the sample, while the descriptive statistics of the variables and a correlation matrix can be found in Table 2.4. Amongst the respondents are firms from industries such as farming, healthcare, retail, financial services, private schools, and the energy sector. Respondents have an average tenure of 6.9 years in their current position and 11.3 years in their respective industries. Twenty-nine percent of them are the owner or partner and 45 percent are the CEO, director, or general manager. The average age of the enterprises is 14.3 years (with a standard deviation of 21.2 years; thus skewed to the right).

Table 2.3: Sample description[a]

Industry		*Number of employees*	
Trading/wholesale	15	10–25	72
Retail	10	26–50	25
Manufacture/repair	27	51–100	14
Farming/fishing/forestry	14	101–500	16
Building/construction	5	>500	16
Healthcare and social assistance	8		
Educational services	7	*Age of the organization (years)*	
Financial services	16	≤2	21
Business services	7	3–5	27
Power generation	7	6–10	36
Information	6	11–15	21
Other	21	16–20	10
		21–25	7
Type of organization		26–30	4
Free-standing enterprise	67	>30	17
Division / line of business of a larger firm	10		
Enterprise owned by a large holding company	12	*Location*[b]	
Partnership/cooperation	27	Sub-Saharan Africa	99
(Part of) a foundation (that is self-sufficient)	11	Europe and Central Asia	18
Other	16	East Asia and The Pacific	27
		South Asia	26
		Middle East and North Africa	17
		Latin America and Caribbean	38

[a] Sample size = 143.
[b] Firms can be active in multiple locations.

Table 2.4: Means, standard deviations, and correlations

Variable	Mean	St. dev.	1	2	3	4	5	6	7
1. Turnover (Ln)	12.91	3.81							
2. Age of the enterprise	14.29	21.19	.46						
3. Infrastructure	– 3.09	3.81	.49	.32					
4. Financial system	0.71	2.22	–.41	.02	–.36				
5. Rent predation	2.58	4.98	–.31	.07	–.41	.37			
6. International trade	– 2.01	4.34	.09	–.20	.15	–.19	–.50		
7. Financial performance	4.92	1.03	.31	.23	.14	–.11	.12	–.18	
8. Average sales growth (%)	40.82	73.83	–.16	–.11	–.08	–.10	–.03	.09	.03

Sample size = 143. Correlations above |.18| are significant at p < .05.

2.4.1 Classification of business challenges for base-of-the-pyramid firms

To develop the classification of business challenges for firms focused at the BoP, we employed content analysis software, namely SPSS Text Analysis, on managers' descriptions of the business challenges that their firms face. SPSS Text Analysis uses linguistic algorithms—based on WordNet developed at Princeton University—to extract key concepts, terms, and categories from open-ended text responses, while also leaving control to the researcher. With the help of this software program, we built a dictionary of terms and concepts that reflect each category's meaning. After refining the results, we had a classification of 30 categories (cf. Table 2.5) with a single business challenge description falling on average into 1.42 categories and a firm falling on average into 3.78 categories.

To enable analysis of the classification, we had to reduce the number of categories. To this end, eight experts went through an open card-sorting exercise (cf. Cowan, 1990; Hannah, 2005). These experts are from for-profit firms, NGOs, a consulting firm, and academia and have all been active at the BoP for many years. Business at the BoP is thus part of their mental maps. Each business challenge was written down on a card with examples of answers to illustrate it. The experts sorted the randomly shuffled deck of 30 cards into piles based on similarity. The number of piles and the exact definition of similarity were left unspecified. After completing the sort, the experts provided a label for each pile. The authors reconciled the eight sortings by constructing a multidimensional scaling plot based on the co-occurrence matrix of the cards, combined with a qualitative approach of examining the category names used by the experts. Figure 2.1 presents the multidimensional scaling plot (using ratio transformation and using Torgerson as the initial configuration) in which the labels refer to the category-number and item-number of Table 2.5. We went back and forth between the multidimensional scaling plot and a resolution of the categories with the exact business challenges that would fall in each category. As a result of the fact that different experts used different criteria to sort the cards, that they sorted the cards into different numbers of piles (ranging from four to eleven piles) and usually into a smaller number of piles than we used in the final categorization (nine as shown in Table 2.5), some cards that were sorted together several times by the experts did not end up in the same category in the final categorization.

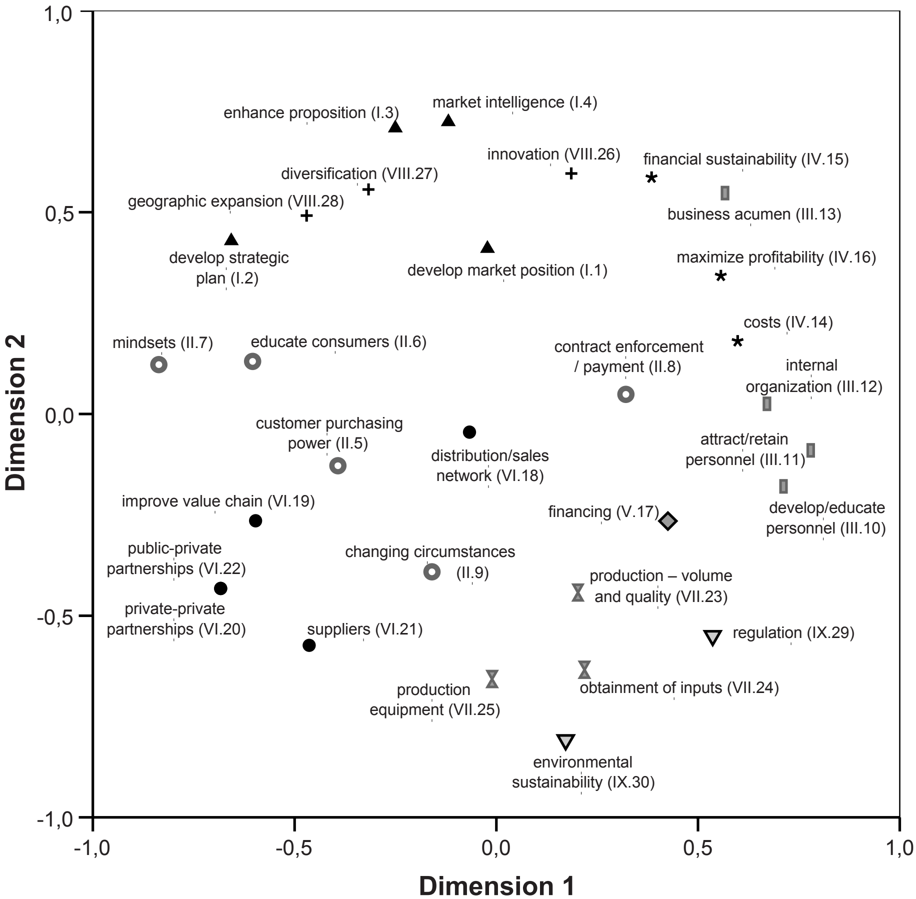

Figure 2.1: Multidimensional scaling plot of business challenges for firms at the base-of-the-pyramid (labels correspond to labels in Table 2.5)

This resulted in the classification of business challenges for for-profit firms that focus their business at the world’s poor as presented in Table 2.5. While the content analysis resulted in 30 different business challenges, the subsequent card-sorting exercise resulted in the final 9 categories and an “Other” category as presented in the table. The number behind each business challenge in Table 2.5 refers to the number of respondents who mentioned that they currently face that challenge, with the sample percentage given in parentheses.

Table 2.5: Classification of business challenges for firms at the base-of-the-pyramid[a]

	Frequency of mention	
I. Market position development & Competition	**96**	**(67%)**
1. Develop market position (marketing & sales)	60	(42%)
2. Develop a strategic plan to beat competition	38	(27%)
3. Enhance the proposition with value that meets customers' needs	31	(22%)
4. Obtain market intelligence	4	(3%)
II. BoP as a strategic challenge	**52**	**(36%)**
5. Deal with the limited purchasing power of customers	22	(15%)
6. Educate consumers/customers	15	(10%)
7. Change and overcome existing mindsets	11	(8%)
8. Contract enforcement / collect revenues	10	(7%)
9. Deal with continuously changing circumstances	7	(5%)
III. Internal organization/management	**51**	**(36%)**
10. Develop/educate personnel	22	(15%)
11. Attract and retain personnel	19	(13%)
12. Develop internal organization	12	(8%)
13. Improve business acumen	7	(5%)
IV. BoP and profitability	**47**	**(33%)**
14. Get costs as low as possible	26	(18%)
15. Operate financially sustainable	22	(15%)
16. Maximize profitability	5	(3%)
V. Obtain financial resources	**45**	**(31%)**
17. Obtain financial resources	45	(31%)
VI. Building BoP ecosystem	**42**	**(29%)**
18. Develop the appropriate distribution/sales network of product/service delivery	25	(17%)
19. Improve functioning of all chains in the value chain	11	(8%)
20. Build private–private partnerships	10	(7%)
21. Develop the network of reliable suppliers	7	(5%)
22. Build public–private partnerships	4	(3%)
VII. Production	**40**	**(28%)**
23. Produce in the desired quantities and with the desired quality	25	(17%)
24. Obtain inputs against a good price	15	(10%)
25. Obtain production equipment	7	(5%)
VIII. Business domain expansion	**34**	**(24%)**
26. Innovate new products and technologies	18	(13%)
27. Diversify into new product-market segments	14	(10%)
28. Expand to new regions	10	(7%)
IX. External corporate governance	**19**	**(13%)**
29. Comply with and navigate through regulations and certification	15	(10%)
30. Operate environmentally sustainable	5	(3%)
Other and/or unclear	**6**	**(4%)**
31. Other and/or unclear	6	(4%)

[a] Sample size = 143

Frequency of mention refers to the number of respondents who mentioned that they currently face that business challenge

Hypothesis 1 predicts that the specific characteristics of the BoP context generate BoP-specific business challenges. Table 2.1 lists existing classifications of business challenges, or more specifically organizational problems, for firms in high-income markets (see page 25). Comparing these previous classifications, which have been developed for firms in high-income markets, with our classification (Table 2.4), which has been developed for firms in BoP markets, reveals similarities as well as differences.

While the classification structure is fairly similar, our classification expands and refines existing classifications with BoP-specific business challenges. Indeed, several of the business challenges that we found in this study are BoP-specific (cf. Table 2.4), providing support for Hypothesis 1. First and foremost, the BoP context becomes visible within the category "BoP as a strategic challenge"—for example, firms may need to "change and overcome current mindsets" when managers, investors, or potential partners do not see the BoP as a business opportunity. Other business challenges not to be found in Table 2.1 and with a high degree of BoP-specificity are: "deal with the limited purchasing power of customers", "contract enforcement / collect revenues", and "operate environmentally sustainable". To "educate consumers/customers", "get costs as low as possible", "develop/educate personnel", and "improve functioning of all chains in the value chain" are other business challenges with a large BoP-specific component.

Still, at an abstract level one may argue that most of these business challenges are also faced by firms in high-income markets, although perhaps less often. For example, at the top-of-the-pyramid firms may also need to change mindsets of, for example, customers. Nevertheless, these business challenges can take very different forms at the BoP. In other words, the BoP-specificity of the business challenges becomes particularly visible at the concrete and practical level of the individual open answers of respondents. Take, for example, the challenge to "get costs as low as possible". At a practical level, getting costs down at the BoP may differ substantially from in other tiers of the pyramid. In fact, Prahalad and Hart (2000) argue that to serve BoP consumers, it is necessary to reinvent cost structures and bring costs down to only a fraction of those in higher-income markets. Similarly, Prahalad (2005: 25) suggests, "quantum jumps in price performance are required to cater to BoP markets". Hence, in this example it is the level of intensity of the business challenge rather than the more abstract theme (i.e., get costs as low as possible) that makes it specific for the BoP context.

Another example of the BoP-specificity at the concrete level of the open answers is given by one of the respondents, who indicated that he has difficulties with "pricing their products as the costs of transaction are very high to reach the dispersed population". Because there is a "lack of credit facility for the population to access the products", he is now creating alternative channels of distribution. The BoP specificity in this example is seen in the cause as well as the level of intensity of the more abstract business challenge.

Credit facility is rarely lacking at the top-of-the-pyramid and the level of dispersion of the (rural) population at the BoP may be unlike that at the higher tiers of the pyramid. These challenges together produce the challenge for the respondent to keep his products affordable.

The business challenge to "expand to new regions" at the BoP may include the intention to expand to poor rural areas, which may bring with it specific difficulties and opportunities. In fact, the challenge to "develop the appropriate distribution/sales network of product/service delivery" can be very different at the BoP compared to the middle and the top-of-the-pyramid. One of the reasons for this is because "[i]n subsistence markets, delivery to market is usually accomplished in a less formal manner, with small merchants obtaining their products from a diverse set of wholesalers, large retailers, and manufacturer representatives" (Viswanathan, Sridharan, & Ritchie, 2008: 223). Viswanathan et al. (2008) continue that this not only poses a problem but also presents an opportunity for firms, as these intermediaries often force the poor to pay large premiums, which firms with a direct distribution model may be able to overcome. Viswanathan et al. (2008) also identify BoP-specific elements with regard to market research, which relate to the business challenge to "obtain market intelligence". They argue that account should be taken of "the concrete reasoning and pictographic thinking of low literate consumers, as well as their lack of experience as participants in market research" (Viswanathan et al., 2008: 215).

Yet another example are the opportunities and problems associated with the challenge to "develop a strategic plan to beat competition". Competition may include not-for-profit foundations and extralegal firms. One respondent indicated that a not-for-profit competitor uses a "give away model that appears inexpensive upfront but fails over time because no one has put in place funds or measures for ongoing maintenance". The respondent continued: "we are often assumed to be a charitable organization. There remains a psychological barrier in the minds of many to the idea of solving BoP issues through market-driven approaches even though our systems are less costly on an investment cost per capita basis than charitable ways."

2.4.2 Organizational life cycle

Hypothesis 2 predicts that the importances of the business challenges of firms at the BoP vary across the stages of the organizational life cycle. To examine this hypothesis, we conducted a multivariate analysis of variance (MANOVA) grouping firms on the stage of the organizational life cycle. We used frequency of mention as a unit of measure of business challenges their relative importance (cf. Dodge et al., 1994). The analysis resulted in an overall insignificant finding (Wilks' Lambda; $p > .10$). Next, using multiple analysis of covariance (MANCOVA), we checked firm size and industry as control variables.

While the industry was insignificant ($p > .10$), firm size was significant ($p < .05$). Yet, firm size is a characteristic of the organizational life cycle (e.g., Rutherford et al., 2003), something that a Chi-square difference test with firm size as dependent variable and the organizational life cycle as grouping variable supports ($p < .05$). Therefore, we continued without control variables (cf. Dodge et al., 1994; Kazanjian, 1988; Rutherford et al., 2003).

Although the above results fail to support Hypothesis 2, the above analyses only test for the relationship of the organizational life cycle with the business challenges *as a group*. To further test Hypothesis 2, we conducted Chi-square difference tests[8] on the *individual* business challenges (i.e., each of the nine categories). Table 2.6 presents the results. The first column of the table contains the nine categories of business challenges with behind it the percentage of respondents that mentioned they faced that challenge. The next four columns contain the percentage of firms within each stage of the organizational life cycle that mentioned that they face the business challenge in that row. The column headed "p-value" provides for each individual business challenge, on the basis of Chi-square difference tests, the level of significance by which the business challenge varies across the stages of the organizational life cycle. If this p-value is insignificant, one needs to examine differences between specific stages of the organizational life cycle. To this end, the next four columns present the Chi-square levels of significance if there is a significant difference ($p < .10$) in the importance of a business challenge between two specific stages of the organizational life cycle.

Analysis of the individual business challenges reveals that two out of nine vary significantly ($p < .05$) across the stages of the organizational life cycle, namely "BoP and profitability" and "business domain expansion". Further, there are several business challenges with significant differences ($p < .10$) between *specific* stages of the organizational life cycle. These results provide support for Hypothesis 2. Collectively, the results suggest that some business challenges do vary across the organizational life cycle while others do not, and some business challenges only vary between specific stages of the organizational life cycle but not for the organizational life cycle as a whole.

We further find that some of the business challenges are more dominant than others during all stages of the organizational life cycle. In particular, "market position development & competition", "BoP as a strategic challenge", and "internal organization/ management" are high in hierarchy, while "external corporate governance" and "business domain expansion" are low in it.

[8] ANOVA analyses and Chi-square tests produce similar results if the dependent variables (i.e., the business challenges) are dichotomous (D'Agostino, 1972).

Table 2.6: Explaining importances of business challenges using Chi-square difference tests for the influence of the organizational life cycle and Logistic regression analyses for the influence of the four dimensions of the investment climate

		ORGANIZATIONAL LIFE CYCLE											INVESTMENT CLIMATE						
							Pearson Chi-square level of significance between specific stages												
BUSINESS CHALLENGES		Startup (1) N = 21	Accelerated growth (2) N = 40	Steady growth (3) N = 57	Stability / Decline (4) N = 25	p-value	1-2	2-3	3-4	1-3	1-4	2-4	Infra-structure N = 117	Financial system N = 117	Rent predation N = 117	Internatio-nal trade N = 117	R^2	χ^2/df	Intercept
Market position development & Competition	*67%*	62%	70%	63%	76%	.64							0.15* (.07)	0.11 (.11)	– 0.09 (.06)	– 0.02 (.06)	.09	1.80	1.11** (.30)
BoP as a strategic challenge	*36%*	52%	35%	37%	24%	.26					.05		– 0.15† (.08)	0.03 (.11)	0.26 ** (.08)	– 0.06 (.06)	.22	5.02	– 0.64* (.30)
Internal organization/management	*36%*	29%	35%	39%	36%	.88							– 0.02 (.06)	– 0.02 (.11)	– 0.17 ** (.06)	0.13* (.06)	.13	2.98	– 0.81** (.29)
BoP and Profitability	*33%*	43%	18%	33%	48%	.05*	.03	.09				.01	0.03 (.06)	0.12 (.10)	– 0.03 (.05)	– 0.02 (.05)	.03	0.71	– 0.76** (.27)
Obtain financial resources	*31%*	29%	40%	33%	16%	.24						.04	– 0.19** (.07)	0.10 (.11)	0.15 * (.06)	– 0.05 (.06)	.13	2.95	– 1.17** (.31)
Building BoP ecosystem	*29%*	33%	35%	30%	16%	.41						.10	– 0.03 (.07)	– 0.12 (.10)	0.07 (.06)	– 0.01 (.06)	.05	1.10	– 0.90** (.28)
Production	*28%*	33%	20%	25%	44%	.17			.08			.04	– 0.15* (.07)	0.26* (.13)	0.07 (.06)	0.09 (.06)	.15	3.38	– 1.26** (.35)
Business domain expansion	*24%*	5%	35%	26%	16%	.05*	.01			.04		.10	– 0.02 (.08)	– 0.29* (.12)	0.02 (.07)	0.09 (.08)	.14	2.72	– 1.29** (.32)
External corporate governance	*13%*	19%	10%	16%	8%	.60							0.22* (.10)	– 0.01 (.12)	0.01 (.07)	0.12 (.09)	.16	2.67	– 1.35** (.31)

Significance levels are two-tailed.
† $p < .10$; * $p < .05$; ** $p < .01$
Percentages refer to the percentage of respondents that mentioned they faced that business challenge.
For the investment climate we report the coefficients with the standard errors given in parentheses and the Nagelkerke R^2. A positive coefficient for one of the dimensions of the investment climate is to be interpreted as a positive relationship between a business challenge's importance and the quality of that investment climate dimension (i.e., better developed infrastructure, better developed financial system, less rent predation, or fewer barriers to international trade).

Business challenges throughout the organizational life cycle. "Market position development & competition" and "BoP as a strategic challenge" seem to be the most important challenges during the startup phase (stage 1). "BoP as a strategic challenge" decreases in importance as we move from the startup phase to the stability/decline phase (stage 4). This movement might suggest that this category represents basic conditions for firms that need to be solved before they can move on to the next stage of the organizational life cycle. Nevertheless, we only find support for a statistically significant difference ($p < .05$) between stages 1 and 4.

Moving to the accelerated growth phase, "BoP and profitability" becomes less of an issue and "business domain expansion" receives a higher priority. Other growth-related challenges are also particularly important during accelerated growth, such as to "obtain financial resources" and "building BoP ecosystem". Hence, growth seems to be more on managers' minds during accelerated growth than profitability does. This is an effect that one might especially expect at the BoP where managers may be more concerned with enhancing the scope of their social impact than in other contexts and where scale is an important driver of profitability (e.g., Dawar & Chattopadhyay, 2002; Prahalad, 2005).

Moving towards the stages of steady growth and stability/decline, "business domain expansion" becomes again less important, as does the challenge to "obtain financial resources", while "BoP and profitability" increases in importance. These relationships suggest that when growth weakens or becomes negative, managers focus more on the profitability of their current activities and less on growth (D'Aveni, 1989). Further, firms at the BoP with stagnating or negative growth seem to face challenges in the "production" process, alongside the challenge to defend the market position against competitors.

2.4.3 Investment climate

Hypothesis 3 predicts that the importances of the business challenges vary across different investment climates. To test Hypothesis 3, we ran a logistic regression analysis for each business challenge with the four investment climate dimensions included as explanatory variables. Table 2.6 reports the coefficients with the standard errors given in parentheses and the Nagelkerke R^2. Variance inflation factor (VIF) scores for all the models were within acceptable parameters; suggesting, multicollinearity was not a problem (Neter et al., 1990). We also inspected the residual errors for normality and there proved to be no sign of deviations from normality. In addition, we used White's tests to check for heteroscedasticity, which proved not to pose a problem. In support of Hypothesis 3, Table 2.6 shows several significant relationships.

Business challenges in different investment climates. The business challenge of "market position development & competition" is perceived more important under a better developed infrastructure. One possible explanation is that an augmented infrastructure enables firms to scale up their business, something that the data supports as the infrastructure is positively related to the number of employees ($r = .42$; $p < .01$) and to firm turnover ($r = .31$; $p < .01$). Further, “external corporate governance” is positively related to the quality of the infrastructure. This may be due to the fact that an augmented infrastructure enhances communication abilities and consequently increases firms’ compliance abilities, the importance of reputation and thus of compliance (cf. Dawar & Chattopadhyay, 2002), and regulators’ abilities to enforce compliance (Thompson, 1996). The importances of three other business challenges are negatively related to the infrastructure; these are: “BoP as a strategic challenge”, to “obtain financial resources”, and “production”. Again, the fact that the infrastructure facilitates coordination and planning might explain the relationship with “production” as obtaining inputs and carrying out the production process depend on such coordination and planning.

A more developed financial system is unrelated to the importance of the business challenge to “obtain financial resources”, has a negative relationship with the importance of the growth- and opportunity-related business challenge “business domain expansion”, and has a positive relationship with the importance of the threat-related business challenge “production”. These relationships seem counterintuitive since one might expect that a more formalized financial system increases firms’ access to financial resources and therefore enables them to focus more on growth. An explanation might be that the formal financial system is more reluctant to finance firms that are active at the BoP (cf. Stiglitz, 2002) and firms aimed at the middle and top of the pyramid might be better equipped to deal with the rules of the formal financial sector, such as accounting requirements.

In a business environment with more rent predation, “internal organization/management” is more important and to “obtain financial resources” and “BoP as a strategic challenge” are mentioned less often by respondents. A higher degree of rent predation is likely to go hand in hand with rising levels of bureaucracy, extralegality, and corruption. While this makes the obtainment of financial resources more difficult for some firms, other firms will take advantage of extralegal ways of doing business (de Soto, 2000). Firms might also want to combat rent predation in the organization and therefore spend a larger amount of effort on developing the internal organization and attracting reliable personnel (cf. Uhlenbruck et al., 2006).

Lastly, in a business environment that is more open to international trade, it is easier for firms to take part in global markets, which may stimulate their desire to professionalize their organization to effectively compete in international markets (Sinha, 2005). This may explain the positive relationship between the ease of international trade and the business challenge of “internal organization/management”. A possible reason for openness to international trade only being significant for one business challenge might be that we excluded firms that operate in more than three countries from the analysis of the relationship between the investment climate and business challenges' importances. Moreover, other barriers to international trade may be more important than openness (Stiglitz & Charlton, 2005), such as a well-developed infrastructure to get goods to a port and access to financial resources to help initiate activities in industries in which a country has a comparative advantage. Hence, the other dimensions of investment climate are as, if not more, important to enable firms to take advantage of the opportunities of international trade. If these areas are not well developed, firms may be unable to exploit the opportunities of international trade while confronted with increased levels of competition, which accompany more openness to international trade.

2.4.4 Business challenges' threat/opportunity quotient and feasibility of action

Hypothesis 4a predicts that managers perceive the business challenges at the BoP more as opportunities than as threats. The average rating on a seven-point bipolar scale of the threat/opportunity quotient is 4.02, which does not significantly differ ($p > .10$) from 4.0. Hence, the extent to which respondents perceive the business challenges as opportunities rather than threats is in balance, thereby failing to confirm Hypothesis 4a. Table 2.7 presents the analyses for each individual business challenge. The standard errors are given in parentheses. The values for four business challenge categories differ significantly from 4.0 ($p < .05$). In addition, at the level of analysis of the 30 business challenges, 9 business challenges differ significantly ($p < .10$) from 4.0. Four of these are considered to pose more of a threat than an opportunity: "contract enforcement / collect revenues", "deal with the limited purchasing power of customers", "obtain financial resources", and "obtain inputs against a good price". Five of them are perceived more as opportunities: "diversify into new product-market segments", "expand to new regions", "innovate new products and technologies", "build private–private partnerships", and "improve functioning of all chains in the value chain".

In support of Hypothesis 4b, we find that managers perceive reasonable-to-good possibilities of managing the business challenges (cf. Table 2.7). That is, respondents rated several attributes of the business challenges at the positive end of the scale. Most importantly, respondents rated the extent to which action is possible in response to the business challenge (ranging from "minimally feasible" (1) to "extremely feasible" (7)) at an average of 4.68, which differs significantly ($p < .01$) from 4.0 (see Table 2.7). Second, the average rating for the extent to which the business challenge is understood within the organization was 2.39 ($p < .05$; ranging from "well understood" (1) to "poorly understood" (7)). Third, the extent to which there is sufficient information available to understand the

Table 2.7: Interpretation of business challenges: Ratings of nine business challenges on seven-point bipolar scales with standard errors in parentheses

BUSINESS CHALLENGES	N	Average threat/opportunity quotient[a]		Average feasibility of action[b]		Average understanding[c]		Average information availability[d]		Average information consistency[e]	
Market position development & Competition	**115**	4.18	(.22)	4.86**	(.17)	2.50**	(.17)	3.23**	(.19)	4.56**	(.20)
BoP as a strategic challenge	**56**	3.23**	(.28)	4.54*	(.24)	2.43**	(.22)	3.64†	(.27)	4.23	(.28)
Internal organization/management	**51**	4.02	(.30)	4.43†	(.29)	2.90**	(.29)	2.84**	(.26)	4.18	(.30)
BoP and Profitability	**50**	3.50†	(.33)	4.68**	(.28)	2.30**	(.26)	2.82**	(.28)	5.12**	(.31)
Obtain financial resources	**50**	3.10**	(.33)	4.42†	(.30)	2.20**	(.26)	3.04**	(.29)	4.45†	(.32)
Building BoP ecosystem	**53**	4.38	(.31)	4.71**	(.27)	2.38**	(.23)	3.09**	(.26)	4.13	(.29)
Production	**47**	3.30*	(.34)	4.11	(.29)	2.66**	(.29)	2.89**	(.28)	4.11†	(.34)
Business domain expansion	**39**	5.18**	(.36)	5.27**	(.23)	2.38**	(.26)	3.22*	(.32)	4.61*	(.32)
External corporate governance	**17**	4.06	(.45)	5.00**	(.37)	2.71**	(.48)	2.18**	(.32)	4.71†	(.51)
Average	**362**	4.02	(.12)	4.68**	(.10)	2.39**	(.09)	3.03**	(.10)	4.45**	(.11)

† $p < .10$; * $p < .05$; ** $p < .01$; all significance levels are one-tailed and test for deviation from the middle category (4.00).

[a] Ranging from "it is a threat to our organization" (1) to "it is an opportunity for our organization" (7).

[b] Ranging from "action in response to the business challenge is minimally feasible" (1) to "action in response to the business challenge is extremely feasible" (7).

[c] Ranging from "it is well understood in our organization" (1) to "it is poorly understood in our organization" (7).

[d] Ranging from "there is sufficient information available to understand the business challenge" (1) to "there is insufficient information available to understand the business challenge" (7).

[e] Ranging from "the information available for understanding the business challenge is inconsistent" (1) to "the information available for understanding the business challenge is consistent" (7).

business challenge was on average rated at 3.03 ($p < .05$; ranging from “sufficient information” (1) to “insufficient information” (7)). Last, the extent to which the available information is consistent was on average rated at 4.45 ($p < .05$; ranging from “inconsistent” (1) to “consistent” (7)).

2.4.5 Limitations

One of the strengths of this study is the dataset of firms at the BoP. However, the practical difficulties of the research context also create certain limitations that merit discussion. First, the representativeness of the sample is unknown as there is no external data with which to benchmark our sample. However, we took several steps to limit concerns regarding sample representativeness. Most importantly, the large number of organizations that provided the contact details and their diversity in focus, type, and origin provide assurance that the sample is representative for firms at the BoP. Even though the sample does not purposely include extralegal firms, which make up an important portion of the economies in which most members of the BoP reside, these firms are likely to have fewer than 10 employees (de Soto, 2000) and are therefore not the focus of this study. In addition, we tested for nonresponse bias and did not find any problems there. Nonetheless, we only collected data from firms active at the BoP. This suggests a bias with regard to Hypothesis 4. After all, the fact that respondents are active at the BoP already suggests that they perceive greater opportunities than threats, although such perception may change after market entry. Second, there is a measurement limitation in that the variables that capture the business challenges are dichotomous: firms either face a business challenge or they do not. Future research on business challenges may use the classification of this study as an empirical foundation, and ask for ratings on each business challenge to obtain a more fine-grained understanding of the extent to which firms face the different business challenges. Such a more fine-grained analysis, in combination with a larger sample size, would provide the opportunity to investigate the combined relationships of the organizational life cycle and the investment climate with the business challenges. Indeed, in the present study we were unable to conduct such a combined analysis because of data limitations. Third, the data employed in this study was cross-sectional. Further longitudinal research should establish the causal claims in this paper empirically. Fourth, the data from the World Bank’s Enterprise Surveys differ in how recent they are for different countries. The oldest data is from 2000. Further, this data make no distinction between investment climates in rural and urban areas, while such differences may be large. Nevertheless, a strength of this data is that it comes from an objective external source, which thus prevents common method bias. Lastly, future research is to further validate the classification of business challenges at the BoP.

2.5 Discussion

We developed an empirically derived classification of organizational problems and opportunities for firms operating at the BoP, and investigated the contextual relationships of these business challenges. The results provide support for the notion of BoP-specific business challenges. Furthermore, we found support for multilevel relationships with the importances of business challenges, namely at the firm-level with the organizational life cycle and at the location-level with the investment climate. Nevertheless, not all business challenges are related to these contextual variables. Lastly, we found that the threat/opportunity quotient of the business challenges was in balance and managers perceived reasonable-to-good possibilities of managing the business challenges.

This study informs BoP literature (e.g., London & Hart, 2004; Prahalad, 2005) on the organizational problems and opportunities of firms operating at the BoP, and contributes to the justification for the BoP context as a field for academic research. The study also contributes to the theory on organizational problems and opportunities (Cowan, 1990; Dodge et al., 1994; Kazanjian, 1988; Rutherford et al. 2003; Terpstra & Olson, 1993; Thomas et al., 1994) by demonstrating that existing classifications of organizational problems and opportunities are inaccurate in the BoP context. In response to this inaccuracy, we extended the theory on organizational problems and opportunities by developing a new classification for firms that operate at the BoP. The development of this classification builds on several methodological techniques (cf. Table 2.2). Using these methodological techniques, open-ended questions, and by presenting business challenges as a construct that includes problems *and* opportunities, we were able to capture a wide range of business challenges and to tap into executives' natural language. This generated a practitioner's perspective on firms' business challenges at the BoP. A practitioner's perspective is highly relevant given the research context. Researchers whose mental maps have been shaped outside the BoP might not be able to a priori come up with the relevant business challenges. Further, while previous research has mainly focused on the organizational life cycle as antecedent of business challenges, we conducted a multilevel study and examined differences in business challenges throughout the stages of the organizational life cycle, which is a firm-level variable, as well as the relationship of business challenges with the investment climate, which is a location-level variable (cf. Dodge et al., 1994). Below, we elaborate on the theoretical and managerial implications of the findings of this study, which are summarized in Table 2.2.

2.5.1 Implications for theory and practice

Business challenges. The results support the notion of BoP-specific business challenges, i.e., the BoP context presents firms with business challenges distinctive to this context.

This suggests that the BoP is a distinct context and these results thus contribute to the justification of the BoP context as a field for academic research. It suggests that innovative business models with BoP-specific solutions to the business challenges may be needed for successful and profitable business engagement in the BoP. Business models developed for other tiers of the socio-economic pyramid may be inappropriate as they are not developed to deal with the BoP-specific business challenges and therefore might be unsuitable to deal with the business challenges at the BoP. This study therefore confirms previous research, which argued that business initiatives at the BoP require innovative business models to manage these organizational problems and opportunities (e.g., Dawar & Chattopadhyay, 2002; Hart & Christensen, 2002; Hitt et al., 2005; London & Hart, 2004; Prahalad, 2005; WBCSD, 2004). Moreover, the results demonstrate that classifications of business challenges are context dependent and cannot be replicated by researchers without considerable thought about contextual effects.

Still, at a more abstract level we observe a strong link between the business challenges at the BoP and the business challenges in high-income markets. This suggests that innovations made by firms at the BoP may also be relevant at the middle and top-of-the-pyramid, thereby broadening the potential of firms at the BoP. Moreover, it suggests that firms from the BoP may transfer such innovations to the middle and top-of-the-pyramid and could become the future competitors of incumbent firms at the middle and the top-of-the-pyramid (Brown, 2005; Hitt et al., 2005; Mahajan et al., 2000; Prahalad, 2005). By deciding not to enter the BoP, a firm is likely to miss these new insights and yet, in its home market, it may be confronted with firms that have acquired these experiences and profited from them. Stated differently, competitive advantage in high-income markets depends on a number of factors and these could include lessons learned in BoP markets.

Because of the BoP-specificity of the business challenges at a more concrete and practical level, managers' mental maps may be insufficiently equipped to deal with them if their experiences lie at the top of the pyramid. Consequently, these managers will need to develop revised and new mental maps. Interaction with people from the BoP and/or actors with experience at the BoP can facilitate such development. Indeed, the ratings on the perceptual dimensions suggest that a presence at the BoP is manageable and might pose less risk than initially expected. More specifically, managers on average perceive business challenges as opportunities just as much as threats. A balanced score is a reasonably positive outcome as managers generally focus on the business challenges that they perceive problematic rather then on those presenting opportunities and are often threat oriented as "people conceive of most decisions as problems" (Cowan, 1990: 370; Jackson & Dutton, 1988; Nutt, 1984). In addition, we find that managers perceive adequate possibilities to manage their business challenges. Combined with the necessity to develop new mental maps, these results[9] suggest a certain urgency to enter the BoP thoughtfully (e.g., through small scale experiments) rather than to deliberate sensibly but endlessly over the action. It is clear that the learning process progresses faster when thinking and talking about the BoP is combined with a day-to-day presence at the BoP (Hitt et al., 2005; Kolb, 1984).

Organizational life cycle. The results provide support for the importances of business challenges changing as firms move through the organizational life cycle. Therefore, the results suggest the potential to create an organizational learning cycle and may explain why some firms make the transition from one stage of development to another while others fail (Rhenman, 1973).

At the same time, we also find business challenges of which the importance does not vary across the stages of the organizational life cycle. Kazanjian (1988) suggests that stages are partly fluid, rather than well-separated from each other, with business challenges overlapping in adjacent stages. An alternative explanation is that business challenges change over time and therefore remain equally important. Such evolution of business challenges with the firm as it progresses through the organizational life cycle, suggests the existence of a second type of organizational learning.

Further, our results show that some of the business challenges are more prevalent than others during all the stages of the organizational life cycle. This implies that there is a hierarchy of business challenges across the organizational life cycle (Kazanjian, 1988). Managers, therefore, need to pay attention not only to the absolute importances of business challenges within a stage of the organizational life cycle but also to how these differ from the other stages. After all, the most important business challenge might also be the most important business challenge of the previous stage, while a relatively unimportant business challenge might be considerably more important than in the previous stage and therefore offer more learning opportunities.

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[9] We also find a positive correlation ($p < .01$) between firm performance and the opportunity/threat quotient as well as between firm performance and the extent to which respondents perceive adequate possibilities of managing the business challenges ($p < .01$). There are multiple effects at play here and causality may run both ways. First, those who are more successful perceive the BoP context more positively. Second, causality could simultaneously also run the other way around. More successful managers/entrepreneurs could be those who are opportunity driven, see the positive within the BoP characteristics, and recognize how these positives can be used to their firm's advantage. Thirdly, managers could also overestimate the opportunities at the BoP, which would suggest a negative correlation. Since we find a positive correlation we know that the former three effects together are at least positive.
Performance is here operationalized as a self-perception on seven performance dimensions in comparison with similar organizations (seven-point Likert scales ranging from "poor" (1) to "outstanding" (7); cf. paragraph 4.3.2).

Investment climate. Not only are importances of business challenges related to the organizational life cycle, but also to the local infrastructure, financial system, level of rent predation, and openness to international trade. Indeed, the importances of the business challenges vary between firms that operate within different investment climates. Hence, we find support for multilevel effects; there are processes and conditions that produce business challenges at work at more than one level of analysis (firm-level as well as location-level relationships).

Firms may operate in different geographical regions. Yet the BoP context is characterized by heterogeneity (Dawar & Chattopadhyay, 2002; Hoskisson et al., 2000; Letelier et al., 2003) and these regions are likely to differ in their infrastructure, financial system, level of rent predation, and openness to international trade. Given the effect of these differences on firms' business challenges, operating in different geographical regions requires business models that enable firms to deal with these differences (e.g., Prahalad & Doz, 1987). Moreover, the results suggest that firms cannot automatically export successful business models from one location to another without taking into account differences in investment climate (Brouthers, Brouthers, & Werner, 2008). Lastly, this could also mean that firms build their business model around local conditions at the BoP and might therefore hinder investment climate reforms, as these reforms might alter the local circumstances on which firms have build their business models.

In conclusion, studying the private sector at the BoP offers intriguing insights for both researchers and practitioners. This study is only a first step in exploring the private sector's involvement with the poor. Future research is needed on the business models through which the private sector can successfully deal with the business challenges at the BoP. Doing so will encourage the development of profitable pro-poor businesses.

Appendix 2.I: Dimensions and formative items of investment climate[a]

Dimension	Items
Infrastructure	– Delay in obtaining an electrical connection (days) – Electrical outages (days) – Value lost to electrical outages (% of sales) – Water supply failures (days) – Delay in obtaining a telephone connection (days) + Firms using the Web to interact with clients/suppliers (%)
Financial System	+ Bank finance for investment (%) – Informal finance for investment (%) + Loans requiring collateral (%)
Rent Predation	– Sales amount reported by a typical firm for tax purposes (%) + Senior management time spent dealing with requirements of regulations (%) – Consistency of officials' interpretations of regulations (% agree with statement) + Time spent in meetings with tax officials (days) + Unofficial payments for firms to get things done (% of sales) + Value of gift expected to secure government contract (% of contract) + Losses due to crime (% of sales) – Confidence in the judiciary system (%)
International Trade[b]	– Average time to clear direct exports through customs (days) – Longest time to clear direct exports through customs (days) – Longest time to claim imports from customs (days)

[a] Source: Enterprise Surveys, The World Bank Group.
[b] Previous research has shown that the time of custom settlement is an excellent proxy for openness to international trade (Verwaal & Donkers, 2003).

CHAPTER 3: The Business Model Concept: A Strategic Management Approach*

Abstract

Changing competitive landscapes are forcing firms to fundamentally revise the way they do business. However, concepts that enable disruptive innovation require a multi-theoretical approach. Indeed, analysis of a firm's value creation and value appropriation may remain incomplete if a single lens is applied, as competitive advantage may depend on the complementarities and interaction between multiple schools of thought. Consequently, the multi-theoretical approach of the strategic business model concept enhances our understanding of a firm's sustainable competitive advantage. Yet, at present, the strategic business model concept is theoretically underdeveloped. Based on a review of business model literature, (strategic) management theories and concepts of complexity theory, we aim to clarify and conceptually advance the strategic business model concept. To this end, we propose a theory-based definition of the concept and build a conceptual framework. Subsequently, to illustrate the enhanced understanding of firms' sustainable competitive advantage, we develop propositions on the assessment of sustainable competitive advantage using the strategic business model concept.

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3.1 Introduction

Changing competitive landscapes—stemming from for example technological innovation, globalization, increasingly saturated markets, and consequently increasing levels of competition—are forcing firms to fundamentally revise the way they do business (Chakravarthy, 1997; Grant, 1996b; Hamel, 2000; Markides, 1999). The pursuit by firms of similar strategies of incremental improvements in costs and/or quality triggers fierce price competition and generates a state of perfect competition (D'Aveni, 1999; Thomas, 1996). This calls for concepts that enable disruptive innovation of firms' dominant competitive logic—i.e., of the way firms create and appropriate[10] value and ensure their future viability (Christensen, Johnson, & Rigby, 2002; Markides, 1997; Rajagopalan & Spreitzer, 1997; Romanelli & Tushman, 1994; Styles & Goddard, 2004).

Management literature—and particularly strategic management—offers many approaches to analyze value creation and value appropriation, such as Porter's (1985) value chain framework, Porter's (1980) five-forces competitive analysis framework, the resource-based view of the firm (Barney, 1991; Wernerfelt, 1984), Simon's (1976) theory of administrative behavior, and Andrew's (1980) Strength-Weakness-Opportunities-Threats model. Each school of thought has its own contributions, limitations, and gives its own interpretation and explanation of firms' value creation and value appropriation (Volberda & Elfring, 2001).

However, competitive advantage may depend on the complementarities and interaction between multiple schools of thought (Rajagopalan & Spreitzer, 1997; Volberda & Elfring, 2001). Therefore, value creation and value appropriation analyses may remain incomplete if a single lens is applied (Adner & Zemsky, 2006; Stabell & Fjeldstad, 1998). For example, a firm's organizational design (Burton & Obel, 2004) affects its configuration of activities (Porter 1996), which builds upon the firm's resources (Barney, 1991; Wernerfelt, 1984). Consequently, firms with similar resources do not necessarily create similar value propositions. Therefore, using only the resource-based view of the firm to explain competitive advantage may generate an incomplete picture. Equally, there is equifinality—i.e., firms with similar outcomes (such as its value proposition or its bargaining position with suppliers) can have different configurations underneath and therefore different levels of competitive advantage (Dory, Glick, & Huber, 1993; Fiss, 2007; Gresov & Drazin, 1997). Furthermore, in the proposition section of this paper, we

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[10] Value appropriation refers to the distribution of the value created. It includes factors like social capital, how a business organizes a value chain in favor of its bargaining power, how it manages switching costs throughout the value chain, and how it obtains access to information as to what value is created where and when (cf. Lepak, Smith, & Taylor, 2007).

illustrate how the robustness of a business model depends on the fit between constructs originating from different schools of thought. We illustrate how the flexibility of a business model depends on constructs stemming from different schools of thought, with the construct with the lowest degree of variety determining the level of flexibility.

Value creation and value appropriation analyses may thus remain incomplete if a single lens is applied. Furthermore, disruptive innovation of firms' dominant competitive logic requires a concept that fully captures this logic instead of only aspects of it. In response to these arguments, we present the strategic business model concept. Yet, the business model concept, and more specifically, the strategic business model, its theoretical development is still in its infancy. Indeed, a literature review will reveal that despite the popularity of the business model concept and its broad use in managerial and academic arenas, scholars and practitioners remain vague when specifying what the business model entails and often refer to different phenomena.

The purpose of this paper is to reconceptualize how we describe and analyze businesses as a whole. More specifically, the purpose is to conceptualize how a business as a whole creates and appropriates value and ensures its future viability. In fact, the crux of the rationale of the paper is that competitive advantage may depend on the complementarities and interaction between multiple schools of thought and the multi-theoretical approach of the strategic business model concept consequently enhances our understanding of firms' sustainable competitive advantage (Afuah, 2004; Amit & Zott, 2001; Morris, Schindehutte, & Allen, 2005). Understandably, strategy is a focal concept in this endeavor—yet, because the strategic business model concept encompasses the business as a whole, including its relationships with other businesses, the concept also includes ideas from outside of the strategy field.

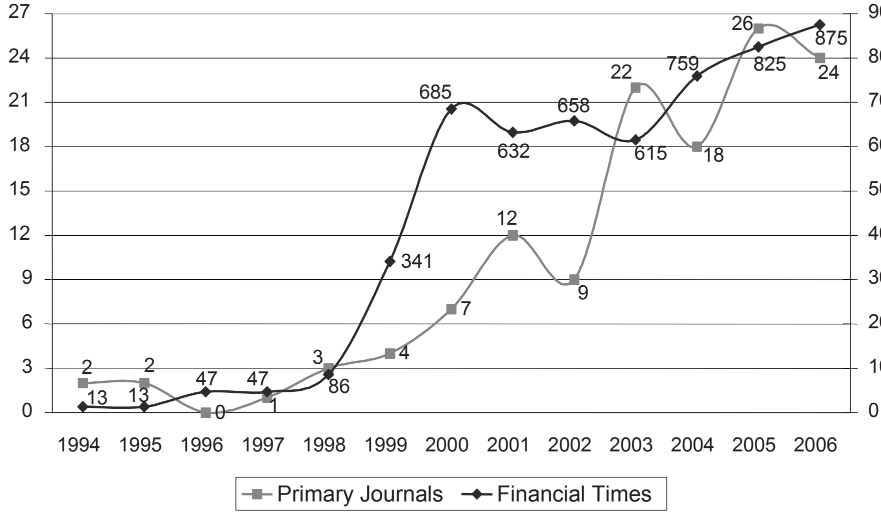
The remainder of the paper is organized as follows. First, a review of business model literature investigates the problems that hamper further theoretical advancement of the business model concept. Next, based on a review of business model literature, strategic management theories and concepts of complexity theory, we propose both a definition and a conceptual framework for the strategic business model concept. After developing formal propositions for empirical validation of the conceptualization and as an illustration that the multi-theoretical approach of the strategic business model concept enhances the understanding of sustainable competitive advantage, we conclude with suggestions for future research.

3.2 Literature review

The number of allusions to a concept gives an indication of its popularity. For example, the use of the term "business model" in *Financial Times* articles increased progressively from

13 to 875 in the period 1994–2006. Similarly, whereas in 1994 it appeared in only 2 articles, by 2006, the term was used in 24 articles in the *Administrative Science Quarterly*, *Academy of Management Review*, *Academy of Management Journal*, *Organization Science*, *Strategic Management Journal*, *Management Science*, and *Journal of Management Studies* (see Figure 3.1).

Figure 3.1: Number of articles in which the term 'business model' is used



Sources (consulted on January 26, 2007):
Financial Times: LexisNexis
Journals: ABI/Inform Internet and Business Source Premier
Because of 12 months delay in databases, the year 2007 is not included.

To evaluate the current state of the business model concept, we reviewed the literature (see Table 3.1 and Appendix 3.I). Because business models exist at the intra-organizational level, firm level as well as the inter-organizational level (see category 4 of Table 3.1) we refer to the business model of a *unit*.[11]

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[11] A business model thus exists at multiple units of analysis. If multiple actors or units have highly intertwined individual business models—i.e., the ways they create value, appropriate value, and ensure their future viability is highly intertwined—the intra-organizational unit of analysis may be more relevant than that of the individual firm. That is, the relevant unit of analysis depends not only on the research question but also on the intertwinedness of units' business models.

Table 3.1: Literature review of the business model concept[a]

1. Definition	1 definition refers to an economic business model 6 definitions refer to an operational business model 3 definitions refer to an operational/strategic business model 11 definitions refer to a strategic business model
2. Conceptual basis	1 author employs an explicit and clear conceptual basis (Amit & Zott, 2001)
3. Temporal scale[b]	10 authors include input, process, and outcome variables (often only specific types) in their conceptualization
4. Nested components[c]	0 authors include components that are nested in other components
5. Dynamism	3 definitions of a business model are dynamic in nature—that is, rejuvenation of the static business model components is part of the business model concept itself 5 authors distinguish between components and linkages that connect the components
6. Aggregation level[d]	6 authors include the intra-industry and/or inter-industry level in their research 19 authors include the corporate level in their research 5 authors include the divisional, business unit and/or business level in their research
7. Research design	6 authors use a theoretical research design 8 authors use a purely conceptual research design 6 authors use a conceptual research design based on case studies and/or interviews 1 author uses purely a case study research design 7 authors use one or multiple case studies in their research design (i.e., not merely as an illustration) 2 authors have done empirical work on business models

[a] 30 articles/books were looked into. This resulted in 21 sets of authors, since some of these authors had multiple works that we included in the literature review. The Appendix gives an overview of all the articles and books included in the literature review.
[b] The temporal scale assesses whether input, process, as well as output are part of the conceptualization.
[c] This category assesses whether the conceptualization makes use of nested components (cf. the analytical scale within the conceptual framework).
[d] We only mention the aggregation level that the authors discuss. However, most frameworks are applicable on multiple levels.

3.2.1 Current status of the business model concept

The concept of business models originally existed predominantly in information systems and e-commerce literature (Mahadevan, 2000; Timmers, 1998, 1999), in which the development of taxonomies of business models receives a lot of attention (Rappa, 2004) as well as the use of system dynamics. Subsequently, the concept transferred to managerial practitioner journals in which the concept is approached more from a strategic management perspective (Chaharbaghi, Fendt, & Willis, 2003; Magretta, 2002; Tikkanen, Lamberg, Parvinen, & Kallunki, 2005; Voelpel, Leibold, & Tekie, 2004). In the managerial academic outlets as well, the concept has been increasingly applied (cf. Figure 1), but in a loose way (Magretta, 2002).

Loosely used. The term “business model” is often used loosely in academic literature and authors often do not specify what they mean by it. For example, Tsay’s (1999: 1339) statement that “outsourcing of production to independently held entities, which automatically distributes decision-making authority, is currently a popular business model in many industries” raises the question of whether outsourcing is a business model, a strategy, or both. If both, what is the difference between a business model and a strategy?

Similarly, Cule and Robey’s (2004: 232) suggestion that “new business processes, new business models, new structures, and new information technologies” emerge from organizational transitions raises the question of whether organizational structure, business processes, and information technologies are part of the business model concept. Winter and Szulanski (2001: 732) seemingly think so, insisting that “[t]o implement the business model successfully in each outlet, the replicator must know the valued features of the products or services that the outlet provides, the procedures involved in the local production and commercialization of those features—i.e., the recipes, routines, and skills required—and the procurement methods that will allow the outlet to acquire the inputs needed to carry out those procedures—including personnel, sites and buildings, specialized equipment, and raw materials”. They refer to these requirements as “business model traits”.

Differences in definitions. Hence, authors can mean different things when they refer to business models (see category 1 of Table 3.1). This is not necessarily a bad thing but is does show that there is still a lack of clarity around the concept. Indeed, Morris et al. (2005) identify three categories of definitions of business models, which they label economic, operational, and strategic. An economic business model, also labeled a revenue model, concentrates on the logic of profit generation. Therefore, critical components are revenue streams, pricing models, and cost structures. In contrast, the operational business model represents the architectural configuration of “internal processes and design of infrastructure that enables the firm to create value” (Morris et al., 2005: 727). Finally, the strategic business model is more concerned than the other types with the “market positioning, overall direction in the firm’s market positioning, interactions across organizational boundaries, and growth opportunities. Of concern is competitive advantage and sustainability. Decision elements include stakeholder identification, value creation, differentiation, vision, values, and networks and alliances" (Morris et al., 2005: 727).

The three business model types are cumulative in nature. That is, the strategic business model concept includes the logic of profit generation and the architectural configuration of internal processes, but also includes the market positioning, the way future viability is ensured, and interactions across organizational boundaries. The strategic business model is thus the most comprehensive and captures the longest time span. This paper, therefore, will focus on the *strategic* business model concept.

Contributions. Appendix 3.I, summarized in Table 3.1, gives an overview of the current state of the business model concept and demonstrates a fragmented nature of conceptualizations. Magretta (2002: 88) proposes that business models have two parts. "Part one includes all the activities associated with making something: designing it, purchasing raw materials, manufacturing, and so on. Part two includes all the activities associated with selling something: finding and reaching customers, transacting a sale, distributing the product or delivering the service." Authors seem to agree that business models are a blend of multiple elements. Moreover, they include elements that are internal to the unit as well as elements external to the unit. Amit and Zott (2001) focus their conceptualization on the intersection of a unit with other units as they define a business model as the depiction of "the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities" (Amit & Zott, 2001: 511). Nevertheless, internal activities—and the resources and capabilities upon which activities build—are also important elements of business model conceptualizations (e.g., Afuah, 2004). Other authors point out the importance of dynamism and rejuvenation of business models (e.g., Linder & Cantrell, 2000; Morris et al., 2005). Although most authors do acknowledge the importance of business model rejuvenation, most of them do not include rejuvenation as part of the business model itself (category 5 of Table 3.1). Chaharbaghi et al. (2003), for example, include rejuvenation as a special meta-model of the business model. Moreover, Tikkanen et al. (2005) acknowledge cognition as another important element of business models, one that is particularly important for business model rejuvenation.

Lack of conceptual basis. Because the contribution of the strategic business model concept lies, for an important part, in its multi-theoretical perspective, the way the composition of the concept is established is a particularly important issue. Indeed, the lack of a clear, explicit conceptual basis with which to determine the composition seems to be the most important reason for scholars to differ in the elements that they see as part of the business model concept (see category 2 of Table 3.1 and Appendix 3.I).[12] Without a conceptual basis, it is difficult for researchers to test the correctness and completeness of their conceptualization and the choice of what to include and how the interdependencies run, remains arbitrary. Amit and Zott (2001: 494) form an exception as they build their work on “how value is created within the theoretical views of the value chain framework, Schumpeter’s theory of creative destruction, the resource-based view of the firm, strategic network theory, and transaction costs economics”. Yet, there remains some arbitrariness in the choice for these theories.

In sum, the concept’s theoretical development is not commensurate with its wide use by researchers and practitioners and remains under-conceptualized. It is inconclusive in defining the concept as well as in determining its complete composition. To remedy these problems of theoretical advancement, we propose to clarify and conceptually advance the business model concept using concepts of complexity theory as conceptual basis.

3.3 Defining the strategic business model

On the basis of the literature review above, we were able to conclude that business model literature lacks a conceptual basis that would enable us to determine the composition of the strategic business model. Dealing successfully with a generic (in that it depicts the logic underlying system functioning; e.g., Hamel, 2000; Linder & Cantrell, 2000; Magretta, 2002; Morris et al., 2005) and field-crossing concept like the strategic business model, requires a theoretical foundation that is equally generic and interdisciplinary. Just such a theoretical foundation is provided by complexity theory (e.g., Von Bertalanffy, 1973).

Complexity theory tries to explain how parts form wholes, how these relationships between parts explain different behaviors of the system, and how these relationships, in interaction with the environment, result in particularly fitness of the system (Bar-Yam, 1997; Holland, 1992). In this way complexity theory is similar to strategic management, as firms, like systems, strive to identify, create, and manage competitive advantage (Glynn, Barr, & Dacin, 2000). Indeed, fitness can be considered the complexity theory equivalent of what competitive advantage is in management literature.

To define the strategic business model, we combine a complex systems lens with the existing definitions of strategic business models. Complex systems are defined by three attributes. We use these three attributes to define the strategic business model. They are, the strategic business model: (1) its boundaries; (2) its aim, and thus what it explains; and

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[12] Particularly category 2 up to and including category 5 of Table 1 focus on the incomplete composition of existing conceptualizations, which thereby ignore elements that may be important within a unit’s business model.

(3) its components and their dynamism (cf. Aldrich, 1999: 3–5; Gharajedaghi, 2006). Below we develop a preliminary definition for the strategic business model on the basis of the first two attributes. A final definition is proposed at the end of the section that discusses the conceptual framework, where we add the third attribute—i.e., the components and dynamism—to the definition.

3.3.1 Boundaries of the strategic business model

As they depict the business of entities (Stähler, 2002) such as business units, corporations, or networks, strategic business models exist at different levels of aggregation (Afuah, 2004; Table 3.1), all of which we term *units*. Moreover, such units are open systems in that they evolve in interaction with their environment (e.g., Afuah, 2004; Lewin & Volberda, 1999; Van der Heijden, 1996).

3.3.2 Aims of the strategic business model

Units aim to create and appropriate value to sustain themselves (e.g., Afuah, 2004; Linder & Cantrell, 2000; Morris et al., 2005). This requires fitness of a unit (Campbell, 1974; Levinthal, 1997). Fitness is the complexity theory equivalent of what competitive advantage is in management literature. It consists of internal fitness and external fitness (Heylighen, 1994, 2002). The external or relative aspect of fitness reflects the degree to which the strategic business model is adapted to, suited for, and optimally uses its external business environment (Hannan & Freeman, 1984; Venkatraman, 1989). In other words, external fitness refers to the extent to which the business model fits its external business environment. Internal fitness, on the other hand, is absolute—i.e., is independent from the external environment—and refers to the business model's ability to maintain externally fit under environmental changes. We distinguish between two ways to accomplish internal fitness: flexibility and robustness, which we will discuss in the propositions section. Internal and external fitness alone, however, are insufficient for value appropriation above costs. For example, a certain degree of uniqueness in positioning is also necessary because if all units have well designed but similar strategic business models, a state of perfect competition exists and firms will be unable to appropriate economic rents.

Consequently, the strategic business model is an architectural representation of the way in which a unit competes—i.e., of the way a unit creates value, appropriates value, and ensures its future viability (together capturing the way a firm creates competitive advantage / fitness). Indeed, if a unit were to undertake an initiative that created value, yet this initiative never enabled any value appropriation (e.g., some types of philanthropic initiatives), such an initiative would not be part of the unit's strategic business model (unless it contributed to the unit's future viability). Architecture refers here to the hierarchical composition of the components (Gharajedaghi, 2006; Simon, 1962), something we will elaborate on in the section in which we introduce the conceptual framework. The strategic business model in this way depicts the logic or essence of how the unit does business and works toward its goals (e.g., Hamel, 2000; Linder & Cantrell, 2000; Magretta, 2002; Morris et al., 2005). It explains a unit's competitive advantage / fitness, which we—in the spirit of the conceptual basis—include in the definition as the unit's positioning within the fitness landscape (cf. Ghemawat & Collis, 1999; Levinthal, 1997).

An important distinction between the operational business model and the strategic business model is that the strategic business model includes the future viability and future positioning of the unit (Morris et al., 2005). Therefore, in addition to value creation and value appropriation, sustainability needs to be reckoned in the definition, thereby making the strategic business model concept dynamic (e.g., Linder & Cantrell, 2000; Tikkanen et al., 2005) and organic (Farjoun, 2002) in nature.

3.3.3 Preliminary definition of strategic business models

Here we give our preliminary definition of the strategic business model concept. The term 'unit' captures the boundaries of the strategic business model. Sustainability captures its strategic orientation. The components and their dynamism are added to the definition after we have discussed the strategic business model's composition.

> The strategic business model represents the core logic of how a *unit* conducts business so that it can *sustain itself*—i.e., how a unit creates value, appropriates value, and ensures its future viability, thereby explaining how it, in interaction with its environment, positions itself within the fitness landscape.

3.4 Multiscale analysis and components versus linkages

Before we lay out the conceptual framework we discuss two concepts from complexity theory upon which we build the definition and conceptual framework. These two concepts are multiscale analysis and the distinction between components and linkages.

3.4.1 Multiscale analysis

Scale means that a phenomenon is hierarchically divided in multiple levels (Bar-Yam, 1997; Gibson, Ostrom, & Ahn, 2000; Simon, 1962; Wimsatt, 1994). It is not the same as scope or another word for abstraction. On the contrary, the scope or size of the phenomenon remains the same at all levels of scale. Rather scale refers to granularity (level of detail) (Kuras, 2003). Scales can come in multiple forms—more formally scale is "the spatial, temporal, quantitative, [taxonomic,] or analytical dimensions used to measure and study any phenomenon. Levels, on the other hand, refer to locations along a scale" (Gibson et al., 2000: 218–219). Bar-Yam (2007) compares it with a zoom lens: "[I]magine using a zoom lens to look at a person. … From far away you see only a dot. Closer up you see limbs and the color of the clothes. Closer still you see the face and facial expression, the fingers and the patterns on the clothes. … Closer still you see the cells of the skin, the fibers of each thread of the clothes. Closer still you see each of the molecules, and closer still you see each of the atoms. … However, unlike a zoom lens, the idea is always to look at the entire system no matter how much detail one is looking at". Hence, the scope does not change from one level of scale to another.

Multiscale analysis simultaneously examines a phenomenon across multiple levels of scale (Bar-Yam, 1997). Such an approach is useful because of what is called "emergence". Emergent properties are those properties of a collective that cannot be deduced from the properties of the parts. Rather, such properties can only be understood from the interdependencies between the parts and between the different levels of scale. This is referred to as emergence (Anderson, 1972). Specifically, emergence concerns the way that finer levels of scale influence the behavior of the parts on coarser levels of scale and vice versa. Because of emergence, properties at one level of scale can disappear when the phenomenon is analyzed at other levels of scale—i.e., properties may be inextricably bound up with a specific level of scale (e.g., El-Hani & Pereira, 2000). Therefore, examinations of levels of scale separately may miss the constraints or boundary conditions these levels set for other levels or the emergent patterns that rise at coarser levels of scale. Consequently, what matters is the interplay between different levels of scale—more specifically, which parts at a certain level are important for other levels (Bar-Yam, 1997). In this paper, we argue that different management theories exist at different levels of scale and to obtain an understanding of competitive advantage may thus necessitate a multiscale analysis approach.

3.4.2 The distinction between components and linkages

From an evolutionary-systematic complex systems perspective, a system consists of connections and distinctions (Heylighen, 2002) or, in other words, components and linkages (e.g., Ashby, 1956; Hall & Fagan, 1956).

Components are the building blocks of the phenomenon under study (Holland, 1995). They can be “used and reused in a great variety of combinations” (Holland, 1995: 34). Together they generate the behavior of the system. Multiscale analysis tells us that components may be systems in their own right being composed of again other, yet simpler components (e.g., De Rosnay, 1979).

Business model components may have little value in isolation but can offer a sustainable competitive advantage as a bundle. Linkages govern the way components connect together—thereby having a governing/control function—as well as the choice to include certain components (cf. Hamel, 2000; Mahadevan, 2000; Porter, 1996). For example, the linkages explain the way components are connected, as the linkages, like a theme, form the commonality between multiple components. You could say that they function as the “glue” of the strategic business model. As a result of the interdependencies between components, made possible by the linkages, units compete and operate as holistic systems or gestalts (e.g., Von Bertalanffy, 1973)—i.e., as integrated wholes of which the sums are greater than the parts and with emergent properties. Indeed, clusters of components would have no meaning without the linkages—i.e., without the linkages the components would all continue to stand by themselves and emergence would not occur. Lastly, linkages also connect the system with its external environment, something we will refer to as intrasystem linkages.

3.5 Conceptual framework

Below we specify our conceptual framework of strategic business models, based on the distinction between components and linkages and the application of multiscale analysis. We first discuss the rationale of how the framework is constructed (see Figure 3.2)—that is: (a) two axes—namely a temporal scale and an analytical scale—both with three levels, which are identified on the basis of a constitutive hierarchy[13], (b) linkages at each temporal scale level that connect the components at that temporal scale level and (c) the

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[13] Hierarchy theory helps to identify the different levels of scale (O’Neill, 1988; Pattee, 1973). A constitutive hierarchy combines components into new components that have their own functions and emergent properties. These new components nest into still other new components, thereby creating a hierarchy of nested components with emergent functions and properties (Gibson et al., 2000: 218).

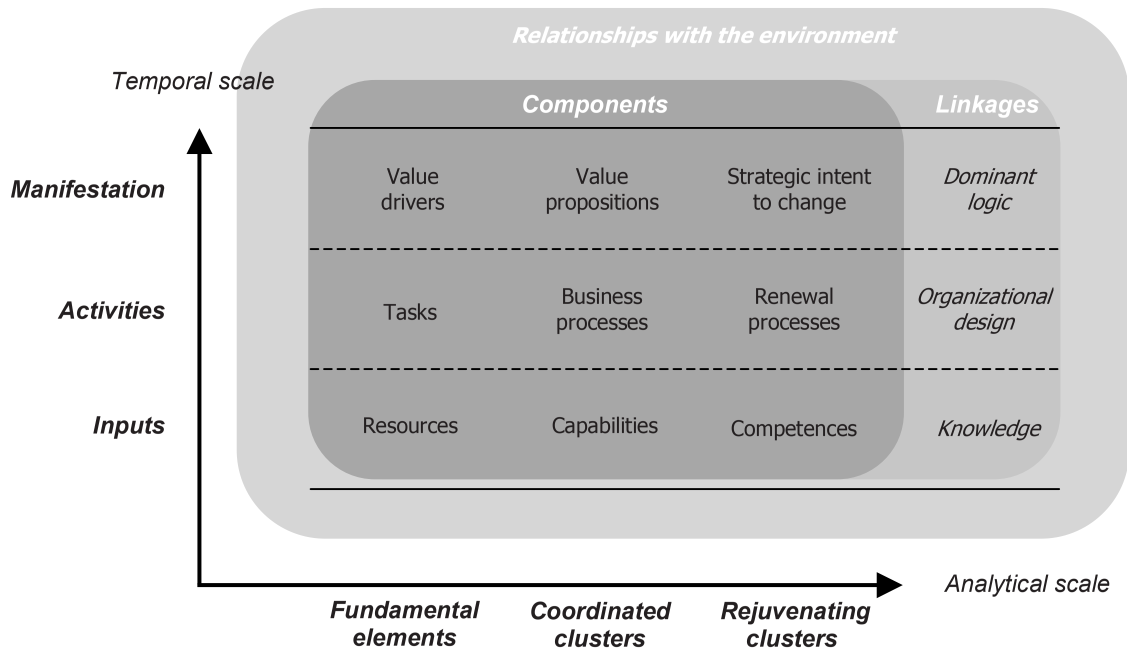

Figure 3.2: A conceptual framework of strategic business models

relationships with the external environment. Subsequently, we systematically elaborate on the framework by discussing each component and linkage one by one. Lastly, we expand our previous definition of strategic business models.

3.5.1 The architectural composition of the conceptual framework

Temporal scale, Vertical axis. Like any evolving system, the strategic business model includes the temporal sequence of inputs, processes, and outputs (e.g., Linder & Cantrell, 2000; Morris et al., 2005; Van der Heijden, 1996). These make up the first scale of our conceptual framework—i.e., they make up the three levels of temporal scale (cf. the vertical axis in Figure 3.2). In systems having input, process, and output variables, the output is higher in hierarchy as it builds on processes and input. Similarly, processes build on inputs. Therefore, we speak of a constitutive hierarchy, i.e., components from the temporal scale's finer levels are nested in the courser levels. Moreover, because input, process, and output are related in a sequential manner (Porter, 1991) and causality is related to the dimension of time, these three levels belong to a temporal scale whose coarser levels use and develop its finer levels. That is, processes use and develop the inputs, and the manifestation builds on both the processes and the inputs (cf. Figure 3.2). Accordingly, the relationships between the levels of temporal scale are not restricted to a single level of the analytical scale (i.e., the horizontal axis). For example, business processes not only use and develop capabilities, which exist at the same analytical scale level as the processes, but also resources and competences. Furthermore, the different levels of scale set restrictions to other levels of scale and provide a sense of direction.

Analytical scale, Horizontal axis. An analytical scale (cf. the horizontal axis of Figure 3.2) differentiates between the business model components within each of the three temporal scale levels and builds a constitutive hierarchy in which components from its finer levels are nested in its courser levels. Each level of the analytical scale has its own functions and emergent properties, which can differ significantly from those of the other levels. At the finest level of analytical scale there are the fundamental elements, which are the most basic components within each temporal scale level. Subsequently, at a coarser level of temporal scale the fundamental elements cluster together in a coordinated fashion, together forming coordinated clusters (see Figure 3.2). Furthermore, the inclusion of the future viability—i.e., sustainability—in our definition of the strategic business model, indicates the importance of change and evolution of a unit's strategic business model. Any model of a complex system requires the inclusion of change (Holland, 1995). To this end, rejuvenation clusters constitute the coarsest level of the analytical scale. This requires some additional explaining.

A unit's existing coordinated clusters—together with the linkages and fundamental elements—represent the unit's business model without taking into account potential changes in the way the unit conducts business. However, to ensure future success of this static representation, units engage in rejuvenation initiatives (e.g., Huff, Huff, & Thomas, 1992; March, 1991; Floyd & Lane, 2000; Van den Ven & Poole, 1995). That is, they seek to replace old and create new or improved business model components.

The existing coordinating clusters form the point-of-departure for such rejuvenation. More specifically, decisions and outcomes of a unit in the past influence its options for the future and thus existing coordinating clusters limit and give shape to the future possibilities for the unit. Consequently, rejuvenation efforts will build upon the existing way the unit conducts business and thus upon the coordinating clusters similarly as the future builds upon the present (Hannan & Freeman, 1984).

Rejuvenation requires multiple coordinated clusters to work together. To renew a particular coordinated cluster, a unit cannot limit its rejuvenation initiatives by building upon that particular coordinated cluster only, since by definition the novelty that the unit wants to add to that coordinating cluster or wants to replace that coordinating cluster with, is not yet part of that coordinating cluster. Therefore, units need to look outside the coordinated cluster to find rejuvenation opportunities for that coordinated cluster. More specifically, the other coordinated clusters may offer insights in how to renew the coordinated cluster—particularly the ones to which the coordinated cluster is connected.

Indeed, coordinated clusters do not stand alone. They interrelate with other coordinated clusters. Consequently, rejuvenation of a particular coordinated cluster requires consideration of the other coordinated clusters to which it is connected, as change of one coordinated cluster may affect them as well. Similarly, the interdependencies may disclose opportunities to improve the fit between coordinated clusters through rejuvenation of one or more coordinated clusters. Moreover, rejuvenation initiatives may aim to rejuvenate a set of coordinated clusters instead of just a single coordinated cluster; again pleading for combining coordinated clusters in rejuvenation efforts. Units may also find rejuvenation opportunities from its relationships with its environments (which are described in a later section of the paper).

To engage in rejuvenation initiatives, units employ their existing coordinated clusters, not with the aim of conducting business as usual but with the specific aim of rejuvenation—i.e., to explore opportunities for rejuvenation and/or to implement such opportunities. This employment of existing coordinated clusters can, for example, take the form of experiments within existing business processes to search for improvements. Or, building upon existing capabilities, entirely new ventures may be started to explore new value propositions.

In sum, rejuvenating clusters build upon coordinated clusters as these are the point-of-departure for rejuvenation initiatives and subsequently combine and employ coordinating clusters with the specific goal of rejuvenation. Therefore, rejuvenating clusters are at a coarser level of analytical scale than coordinated clusters.

Linkages. The temporal scale and analytical scale distinguish the components of the strategic business model concept. In addition to components, systems have linkages, which govern the way components connect together and determine the choice of whether to include certain components or not. Indeed, what we see as we lay out the conceptual framework below is that at each level of the temporal scale (the vertical axis in Figure 3.2), the linkage explains how the components from the finer level of analytical scale (the horizontal axis in Figure 3.2) cluster into new components at a coarser level of analytical scale and with emergent properties. Furthermore, linkages have a design-function. That is, decisions on the rejuvenation of the strategic business model and responses to external change are rooted in the linkages and subsequently implemented through the rejuvenating clusters. Proposition two elaborates on this design-function of the linkages.

We now elaborate on each level of temporal scale in turn, together with the levels of analytical scale and the linkages at these levels of temporal scale. We conclude with the relationships with the unit's environment.

3.5.2 Inputs: The finest grained level of temporal scale

By input, we mean the tangible and intangible components available to units for creating fitness. They explain a unit's "natural inclination" towards certain activities, outputs, and linkages. Each unit builds upon a collection of discrete but interrelated resources (Barney, 2002; Penrose, 1959), capabilities (Grant, 1991; Ray, Barney, & Muhanna, 2004), and competences or dynamic capabilities (Prahalad & Hamel, 1990; Sanchez, Heene, & Thomas, 1996; Teece, Pisano, & Shuen, 1997). Thus, moving from a fine towards a coarse level of analytical scale while preserving the temporal scale at the level of inputs enables differentiation of these three strategic business model inputs.

Resources. Resources are the tangible and intangible assets "available and useful in detecting and responding to market opportunities or threats" (Sanchez et al., 1996: 8).

Capabilities. Capabilities refer to "a firm's capacity to deploy *and coordinate* different resources, usually in combination, using organizational processes, to affect a desired end" (Amit & Schoemaker, 1993: 35; italics added on the basis of Grant (1991) and Prahalad & Hamel (1990)). Capabilities are thus a unit's ability to exploit its resources (Grant, 1991: 122) by deploying, coordinating, and building on them (Sirmon, Hitt, & Ireland, 2007). Hence, capabilities, rather than being merely a combined set of resources, add coordination to the cluster of resources. The ability to actually employ resources is an emergent property.

Competences. Dynamic capabilities or competences (we use both concepts interchangeably) refer to a firm's ability "to *sustain* the coordinated deployment of assets in ways that help a firm achieve its goals" (Sanchez, 2004: 521). It is the dynamic aspect of competences, in the definition captured by the sustainability requirement, that distinguishes competences from capabilities (Eisenhardt & Martin, 2000; Teece et al., 1997; Teece, 2007): "To be sustainable, a competence must respond to the dynamics of the external environment by enabling an organization to maintain its ability to create value in the marketplace even as changes take place in the market preferences" (Sanchez, 2004: 521). Thus, because competences not only build on capabilities but also incorporate the sustainability requirement, they add rejuvenation as an emergent property. Examples of such competences are abilities in the areas of product innovation, strategic decision-making, and alliancing. These abilities are employed to either integrate new business model components and linkages, to acquire new ones, to reconfigure the existing ones, or to release existing components and linkages (Eisenhardt & Martin, 2000).

Linkages between inputs: Knowledge. Inputs are linked through the activities that exploit them but they are also linked directly. That is, because the combination, integration, reconfiguration, and sense making of inputs—which are necessary for exploitation of inputs (e.g., Grant, 1996a)—are all facilitated by knowledge, knowledge is the linkage between inputs (Boisot, 1998; Grant, 1996a,b). Knowledge, defined as the information and understanding gained through education or experience (tacit as well as explicit) (Schulz, 2001), can be distinguished from the concept of dominant logic (Prahalad & Bettis, 1986) by its higher degree of validity (Schulz, 2001: 662). Not only does knowledge become manifest in resources, capabilities, and competences (Boisot, 1998), but "knowledge themes" recur within them and keep them aligned. Consequently, when a unit changes an input (e.g., it buys a new machine) it needs knowledge (e.g., operating instructions) to align it with the other inputs (e.g., develop related capabilities and competences).

3.5.3 Activities: The intermediate level of temporal scale

Moving the temporal scale towards a coarser level makes the activities dimension visible. While inputs place constraints on the activities that the unit can perform (cf. Grant, 1991: 122), activities explain how a unit exploits, protects, and develops its inputs through a path-dependent process (e.g., Eisenhardt & Martin, 2000; Grant, 1991; Porter, 1991: 108; Ray et al., 2004; Teece et al., 1997). An examination of activities reveals that each unit is comprised of a collection of discrete but interrelated tasks (Scazzieri, 1993), different types of business processes (e.g., Morecroft, Sanchez, & Heene, 2002; Scazzieri, 1993), and renewal processes (Floyd & Lane, 2000; Huff, Huff, & Thomas, 1992). Thus, as it did for the inputs, the analytical scale differentiates between (a) the most basic form within the temporal scale (i.e., the fundamental elements); (b) the coordinated clusters in which multiple fundamental elements are nested and which have emergent properties; and (c) the component clusters aimed at rejuvenation, which contain and build on the fundamental elements and coordinated clusters but also have their own emergent properties.

Tasks. A task, being a clearly defined piece of work on a particular object and not further divisible (Scazzieri, 1993), is the most basic form of activity and exists at the finest level of the analytical scale.

Business processes. Because business processes use a unit's capabilities to integrate multiple tasks, often in a specific sequence, they contain and build upon multiple tasks (e.g., Morecroft et al., 2002; Scazzieri, 1993). At the same time, because they combine specific tasks in a specific sequence and at a specific place and/or moment in time, business processes are more than simply the sum of the tasks they contain (cf. Porter, 1996).

Renewal processes. Several researchers have pointed to business models as the locus of innovation (e.g., Christensen & Raynor, 2003; Hamel, 2000; Markides, 1997, 1999; Morris et al., 2005), which signals the corresponding importance of rejuvenation. At the temporal scale level of the activities, rejuvenation is acknowledged through renewal processes (Floyd & Lane, 2000). Specifically, renewal processes are the replacement of old and creation of new or improved business model components or linkages. Such initiatives can be explorative as well as exploitative (March, 1991) and internally as well as externally driven (Flier, Van den Bosch, & Volberda, 2003). For example, units may set up new corporate ventures, experiment with new business processes, engage in market research, and start joint ventures to find opportunities for renewal of their strategic business model. Subsequently, units could implement renewal opportunities and change their strategic business model, which for example could mean expansion of the scope of their activities, dissolution of activities, implementation of cost savings, the creation of new capabilities, and change in corporate culture. Hence, there are many ways in which to initiate renewal and all components and linkages can be affected.

Linkages between activities: Organizational design. Activities are linked to each other by the organizational design (Burton & Obel, 2004; Galbraith, 2002), which, according to Nadler and Tushman (1997: 24), encloses two perspectives: the structural and the social or cultural. The structural dimensions of organizational design are the incentives and the coordination and control mechanisms (Barney, 2002: 171), while the social or cultural perspective encompasses the unit's culture and climate (Ekvall, 1987; Fiol, 1991).

Both perspectives affect the way people carry out activities, thereby explaining differences between the intended and actual execution of activities.

3.5.4 Manifestation: The coarsest grained level of temporal scale

We apply the term manifestation to the coarsest level of the temporal scale, which consists of the distinguishable manifested properties and the intended properties or commitments of the inputs, activities, and linkages in terms of their value contribution to units' fitness. Whereas the inputs make up the strategic business model's natural inclination, the manifestation captures its distinguishable manifested attributes or traits as they can be observed, measured, and/or experienced by the unit's environment and internal stakeholders. Thus, such attributes exist as subgoals of the unit's higher aim; namely, fitness. The external fitness of the strategic business model consists of the fit between the unit's environment and the manifestation. At this temporal scale level, value drivers exist at the finest level of the analytical scale, nested in the unit's value propositions. The value properties that the unit contemplates achieving in future are included through its strategic intent.

Value drivers. At the finest level of the analytical scale, the manifestation consists of value drivers. These are value sources like entrepreneurial orientation, creativity, efficiency, and network externalities around which the strategic business model is built (e.g., Hamel, 2000; Lumpkin & Dress, 1996; Porter, 1996). Other value drivers include information access and information asymmetries, uniqueness, bargaining power, switching costs (switching costs for stakeholders as well as for the unit itself), and a preferred position from social capital in the mindset of different stakeholders. Value drivers thus include drivers of value creation, value appropriation, and future viability.

Value propositions. Because the objective of the strategic business model is to create and appropriate value for its stakeholders in the context of the unit's mission and strategic intent (Magretta, 2002; Van der Heijden, 1996), the finer levels of the model's analytical and temporal scales work together to address certain stakeholder needs. A unit cannot be sustainable without making such stakeholder value propositions sufficiently attractive. The value drivers exist as a function of the value propositions—that is, to create attractive propositions, units attempt to combine value drivers to be more valuable together than their sum in isolation. Accordingly, the value propositions exist at a coarser level of the analytical scale than the value drivers.

Strategic intent to change. The value drivers and value propositions that a unit desires to achieve in the future are included through the strategic intent, which "envisions a desired leadership position and establishes the criterion the organization will use to chart its progress" (Hamel & Prahalad, 1989: 64). The strategic intent thus functions as a selection mechanism and gives a sense of purpose and meaning within the unit (e.g., Wheatley, 1992). It builds on the value propositions because these have formed the existing dominant logic, it saves time and poses less risk (e.g., Eisenhardt, Brown, & Neck, 2000: 58; Hannan & Freeman, 1984; Itami & Numagami, 1992). Accordingly, the strategic intent exists at a coarser level of the analytical scale than do value drivers and stakeholder value propositions.

Overall, incorporating the competences, renewal processes, and strategic intent into the conceptual framework of strategic business models not only takes into account the strategic business model's building blocks but also its building process. The rejuvenating clusters thus take the conceptualization beyond a static perspective.

Linkages between the manifestations: Dominant logic. The dominant logic or mental models of a unit comprise its belief systems, core assumptions, and frames of reference (Bettis & Prahalad, 1995; Prahalad & Bettis, 1986). From their dominant logic units derive their ideas about how best to design their strategic business model—i.e., which stakeholders to service, what manifestations–environment combinations it desires, and how to accomplish these. Thus, the dominant logic represents a conceptualization of the business in which the unit operates and how to succeed in it. Specifically, the dominant logic links the value drivers, stakeholder value propositions, and strategic intent through a cognitive process that organizes the components into themes (cf. Kaplan and Norton (2004: 12) and their strategic themes; Ciborra, 1996: 115; Gavetti & Levinthal, 2000; Hamel, 2000: 150; Tikkanen et al., 2005). Thus, by functioning as a filter that channels managerial attention and choice, the dominant logic links the components at the coarsest level of the temporal scale and shapes the strategic business model its evolution (e.g., Cyert & March, 1963; Markides, 1997; Prahalad & Bettis, 1986). In the propositions section, we elaborate on the relationship of the dominant logic with the other linkages in the conceptualization.

Even though it may not be possible to measure the dominant logic directly (Barr, 1998), it does translate into a unit's operating rules (cf. Eisenhardt & Sull, 2001; Hedberg & Jönsson, 1977; Morris et al., 2005; Weick & Roberts, 1993: 359). Eisenhardt and Sull (2001) provide an example of how Yahoo! manages product innovation through such operating rules. Yahoo! recognized "the need for a few key strategic processes and a few simple rules to guide them through the chaos. … [They] lived by four product innovation rules: know the priority rank of each product in development, ensure that every engineer can work on every project, maintain the Yahoo! look in the user interface, and launch products quietly" (Eisenhardt & Sull, 2001:108, 110). Developers could do anything they liked within the boundaries of these rules.

3.5.5 Relationships with the environment: Intrasystem linkages

Value creation and appropriation occur within an entire ecosystem of actors. Consequently, the way a unit conducts business should be assessed within the context of this business ecosystem. The interactions of a unit with its external environment are referred to as the unit's intrasystem linkages and, for instance, include value chain management, conducting and coordinating transactions, cooperation with other actors, and acquisition of new inputs. Intrasystem linkages develop from three phenomena: value exchange, coopetition, and inspiration drawn from the environment.

Value exchange is a fundamental part of value creation and value appropriation. Units create value for their stakeholders and in return appropriate value from them that flows back into the unit. Furthermore, through its role within the ecosystem, a unit may create added value above the value of the product or service that it produces (its role within the ecosystem may also be in fact its chief product/service). Moreover, the role and behavior of a unit within the ecosystem determine its market power and therefore affect the value that it is able to appropriate.

Amit and Zott (2001) propose that value exchange has three dimensions: transaction content, transaction structure and transaction governance (Zott & Amit, 2004). First, the transaction content—i.e., the products or services being exchanged by the other parties in return for the unit's value proposition. Second, the transaction structure, which refers to "the parties that participate in the exchange and the ways in which these parties are linked. Transaction structure also includes the order in which exchanges take place (i.e., their sequencing), *the location exchanges take place,* and the adopted exchange mechanism*, such as price setting and negotiation,* for enabling transactions" (Amit & Zott, 2001: 511, italics added; cf. Mitchell & Coles, 2003). Third, transaction governance refers to "the ways in which *transactions between the parties* are controlled and to the incentives for the participants in transactions" (Amit & Zott, 2001: 511; Zott & Amit, 2004).

Another way in which a unit's strategic business model is linked to its environment is through competition and cooperation with other parties (Brandenburger & Nalebuff, 1996). For example, the manifestation, as well as other aspects of the strategic business models of other parties, can be complementary to that of the unit. Thus, coopetition adds a network dimension to the strategic business model concept. Moreover, all stakeholders affected—also effects beyond competition and cooperation, such as stakeholders who experience distress because of the unit—and the effect upon these stakeholders are part of a unit's strategic business model—i.e., if value creation, value appropriation or future viability is affected.

A final intrasystem linkage is the external environment as a source of inspiration for a unit's strategic business model. For example, the rejuvenation efforts of other units—which may be from a very dissimilar industry (cf. Hart & Sharma, 2004)—can inspire a unit's rejuvenation efforts and provide it with learning opportunities (Axelrod & Cohen, 2000: 5).

3.5.6 Definition of strategic business models

On basis of the above discussion we can expand our previous definition with the strategic business model's composition. This brings us to the following definition.

> The strategic business model represents the core logic of how a *unit* conducts business so that it can *sustain itself*—i.e., how a unit creates value, appropriates value, and ensures its future viability, thereby explaining how it, in interaction with its environment, positions itself within the fitness landscape. The model's architecture consists of emergent *components from two scales*, the levels of which are distinguished on basis of two constitutive hierarchies: (1) a temporal scale whose levels subsume the temporal sequence of input-process-output and (2) an analytical scale whose levels subsume the coordination between components and model rejuvenation. *Linkages* connect the business model components to each other and connect the architecture with its value chain and broader environment.

By using concepts of complexity theory as the conceptual basis, we belief we offer a definition that has increased in completeness when compared to existing definitions. The definition recognizes the holistic character of the concept. It includes components as well as linkages, takes into account the relationship with the unit's environment, and incorporates dynamism through both scales as well as the linkages. Existing definitions might, for example, not include the inputs of the concept or exclude the linkages. They might also not recognize the system's holistic nature and/or define the strategic business model as a static concept (cf. Table 3.1).

Furthermore, the conceptualization incorporates rejuvenation and change through particularly the coarsest level of analytical scale. Yet, all components and linkages are important for strategic business model evolution, as such is a holistic process (cf. Magretta's (2002) example of the innovation of a robust business model for travelers checks). For example, a unit's strategic intent may build upon the unit's competences as the unit tries to exploit these further. However, capabilities and competences also set restrictions to the activities a unit can execute and to the possible outcomes. Indeed, capabilities can turn into "core rigidities" (Leonard-Barton, 1992) and induce a "competence trap" (Levinthal & March, 1993). This may again affect units' renewal processes as the units attempt to avoid these traps (Teece et al., 1997). Similarly, renewal processes of units that have more stretch in their strategic intent (Hamel & Prahalad, 1993) may engage more in exploratory renewal processes while other units' renewal processes remain more exploitative (March, 1991). As a unit initiates renewal processes and continues with its daily operations, it learns and develops new and improved components and linkages, such as new inputs, knowledge and cognitive structures (Fiol & Lyles, 1985; Argyris & Schön, 1978). Units may even have the capacity to shape their environment (Thompson, 1967; Child, 1972). Furthermore, upper echelons develop certain propensities from prior experiences, thereby shaping the entire strategic business model (Miller, Burke, & Glick, 1998; Prahalad & Bettis, 1986). In fact, in the proposition section we argue that the dominant logic determines the unit's capacity to recognize potentially valuable changes, knowledge determines the internal possibilities to change, and the organizational design determines the actual utilization of these possibilities to change. Therefore, the linkages function like a funnel with the weakest linkage determining the flexibility of the strategic business model (cf. Harrison & Klein, 2007).

3.6 Propositions: Assessment of internal fitness

To enable empirical validation of the above conceptualization, we develop propositions in this section that address the assessment of competitive advantage of a unit's strategic business model. In fact, the propositions illustrate interdependencies between different management theories within the conceptual framework and the effect these interdependencies have on the assessment of sustainable competitive advantage. More specifically, we investigate fitness, as fitness is the complexity theory equivalent of what competitive advantage is in management literature. We restrict the assessment of competitive advantage / fitness to internal fitness. Future research may want to add external fitness to this assessment (something we do in Chapter 4).

One of the two dimensions of fitness is internal fitness (Heylighen, 1994, 2002), which is absolute (i.e., independent from the environment) and refers to the ability to maintain externally fit under environmental changes. Indeed, external fitness—i.e., the fit between business model and the external business environment—is a snapshot in that it may change as the business environment changes (Wright & Snell, 1998). It is internal fitness that assesses whether such external fitness is sustainable over time. Internal fitness can be attained in two ways: by creating a robust business model and by creating a flexible business model (Heylighen, 2002; Zajac, Kraatz, & Bresser, 2000).

Teece, Pisano, and Shuen (1997: 521) describe flexibility as a dynamic capability to "scan the environment, to evaluate markets and competitors, and to quickly accomplish reconfiguration and transformation ahead of competition". Hence, a flexible business model is one that is able to adjust promptly to a broad range of business environments (Grewal & Tansuhaj, 2001; Volberda, 1998). This allows a firm to maintain external fitness by modifying its business model in response to environmental change (Evans, 1991; Sanchez, 1995).

A robust business model is one that is "not threatened by shifting contingencies" (Zajac et al., 2000: 434). This may be due to the possession of "resources that offset external pressures for change", something also argued by Selznick (1957), or "its local environment may shelter it from larger changes in its industry" (Zajac et al., 2000: 434). Such a business model is an intrinsically stable systemic whole, the external fitness of which is insensitive to external changes, and is thus resistant to external perturbations, fluctuations, and noise without a qualitative structural change (Jen, 2003). Therefore, while a flexible business model maintains external fit by adjusting in response to environmental change, a robust business model maintains external fit through the ability to buffer environmental change.

From an evolutionary-systematic perspective, complexity theory suggests connections and distinctions—i.e., linkages and components—as what systems are made of. This raises the question of how the connections and distinctions within the strategic business model relate to its robustness and flexibility. We argue that although components are connected through linkages, the quality of the connections—that is, how well components combine—is reflected in the degree of internal fit between components. This internal fit, we hypothesize, creates robustness of the strategic business model (internal fitness and internal fit are thus different concepts).[14] With regard to distinctions, we argue that these are reflected in the variety of the linkages. This linkage variety, we hypothesize, creates flexibility within the strategic business model. Specifically, we hypothesize that units need to balance the variety of linkages with the internal fit between components because of a tradeoff between the two—while together they determine a unit's internal fitness, which is made up of robustness and flexibility.

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[14] Internal fit creates one of two forms of robustness. There are two ways to create a robust strategic business model (Zajac et al., 2000). One way is by creating such a "strong" and effective business model that this suffices in itself to parry any external changes (Nilsson & Rapp, 2005). The other way is to build or select a local environment that shelters the business model from larger changes in its business environment (Zajac et al., 2000). It is the first form of robustness that is created by internal fit between components and it is this form of robustness that this section focuses upon. The second way to create robustness is more a choice of business model design than a characteristic of components and linkages. The second way to create robustness is discussed in more detail in Chapter 4. Nevertheless, the proposition section is limited in the sense that it does not take this second form of robustness into account but instead assumes the external environment to be a given that they cannot change for units. Given the purpose of this section, namely to illustrate the enhanced understanding of firms' sustainable competitive advantage from the strategic business model concept by demonstrating interdependencies between different schools of thought, this limitation is not a problem.

3.6.1 Internal fit produces robustness

Connections manifest themselves in the internal fit between components. To identify such connections, we distinguish between three forms of internal fit: misfit, consistency, and reinforcement (cf. Porter, 1996). Whereas misfit occurs when two components obstruct each other—i.e., they decrease each other's value—consistency exists when the business model components are headed in the same direction and do not obstruct each other (cf. Miller, 1996b). Two components reinforce each other if the value of each component is increased by the presence of the other. An opposite interaction is substitution, which occurs when the marginal value of one component's configuration decreases in the presence of another (Porter & Siggelkow, 2008; Siggelkow, 2002b). Each form of internal fit can be context specific, meaning that the benefit of components and/or the interactions between them depends on other strategic business model design decisions and/or the level of other business model components (Porter & Siggelkow, 2008).

The more components act together and reinforce each other, the "stronger" and more effective the strategic business model. Therefore, internal fit between business model components creates such a "strong" and effective strategic business model that this suffices in itself to parry any external changes (Nilsson & Rapp, 2005; Bar-Yam, 2004). As a result, internal fit mitigates the need to strategic adaptation, creating a strategic business model that is an intrinsically stable systemic whole that can resist external perturbations, fluctuations, and noise without a qualitative structural change. This idea is similar to the idea of core competences, which reasons that firms may develop specific competencies that can "provide meaningful protection from environmental changes" (e.g., Zajac et al., 2000: 434; Hofer & Schendel, 1978; Selznick, 1957). However, in line with Barney (1991, 2002), our argument differs in that we add that these core competences need to be used in an organizationally effective way and thus that it are systems of business model components that create the protection rather than independent competencies. Internal misfit, in contrast, decreases a strategic business model's strength and makes the strategic business model vulnerable to external change. Misfit thus reduces robustness. Indeed, in a design with a high degree of internal fit, different design postures require different design decisions and management styles. As a result, the simultaneous pursuit of inconsistent designs (i.e., misfit) diminishes the strategic business model's strength and consequently its ability to resist external changes without changing itself (Hill & Rothaermel, 2003; Porter, 1985). The relationship between internal fit and robustness is further illustrated by the fact that since any change in the strategic business model requires extensive, system-wide changes to uphold the internal fit (Mreła, 1980), it becomes less likely that a unit with high internal fit will adjust its strategic business model under changing external circumstances. In other words, internal fit creates inertia and staying with initial design decisions may be the preferred course of action (Miles & Cameron, 1982).

Nonetheless, the degree of internal fit can also become too high. For example, if the internal fit results from too specialized a design, the unit may lose its resilience and relevance and become too simple to match environmental complexity (Ashby, 1956; Miller, 1993, 1996b). Thus, a minimum level of variety remains crucial. Otherwise the level of inertia would become too high. Similarly, when rejuvenation initiatives lead to an avalanche of (desirable and undesirable) changes among components (Mreła, 1980), the interdependencies between the business model components make the strategic business model too unstable (Langlois, 2002; Simon, 1962). This relationship between internal fit and internal fitness leads to the first proposition (see Figure 3.3a).

Proposition 1. The degree of internal fit between a unit's business model components has a curvilinear (inverted U-shaped) relation with the strategic business model's robustness.

3.6.2 Linkage variety produces flexibility

Distinctions manifest themselves in the variety or breadth of the linkages' existing content and their potential content that is readily deployable but not yet activated (cf. Bowman & Hurry, 1993; Sanchez, 1993). Because linkage variety enhances the variation within the unit, it increases the unit's opportunities to shape and adapt to its environment (e.g., Cohen & Levinthal, 1990; Cyert & March, 1963; Harrison & Klein, 2007; Milliken & Martins, 1996; Volberda, 1998). In other words, the unit has a larger repository of actions for dealing with environmental disturbances, for rejuvenating its strategic business model, and for changing the "rules" of the business it is in (Ashby, 1956). Linkage variety, therefore, produces a strategic business model that is flexible. Conversely, too low a variety of linkages results in too low a flexibility to meet environmental turbulence.

Linkage variety includes the dominant logic, organizational design, and knowledge of a unit—something also suggested by Harrison and Klein (2007) as separation, disparity, and variety. We discuss the three in turn.

A broad dominant logic—i.e., large cognitive variety—facilitates recognition of valuable changes and understanding of how to implement these changes effectively and efficiently (Barr, Stimpert, & Huff, 1992; Harrison & Klein, 2007: 21; Miller et al., 1998; Milliken & Martins, 1996; Nooteboom, 2000, 2002). Thus, cognitive variety may increase the "ability to process information, perceive and interpret stimuli, and make decisions" (Milliken & Martins, 1996: 416). Cognitive variety reflects the number of agents with different cognitions as well as the cognitive distance between them (Nooteboom, 2000, 2002). Further, it pertains to two levels: (a) the unit as a collective (Fiol, 1994; Weick &

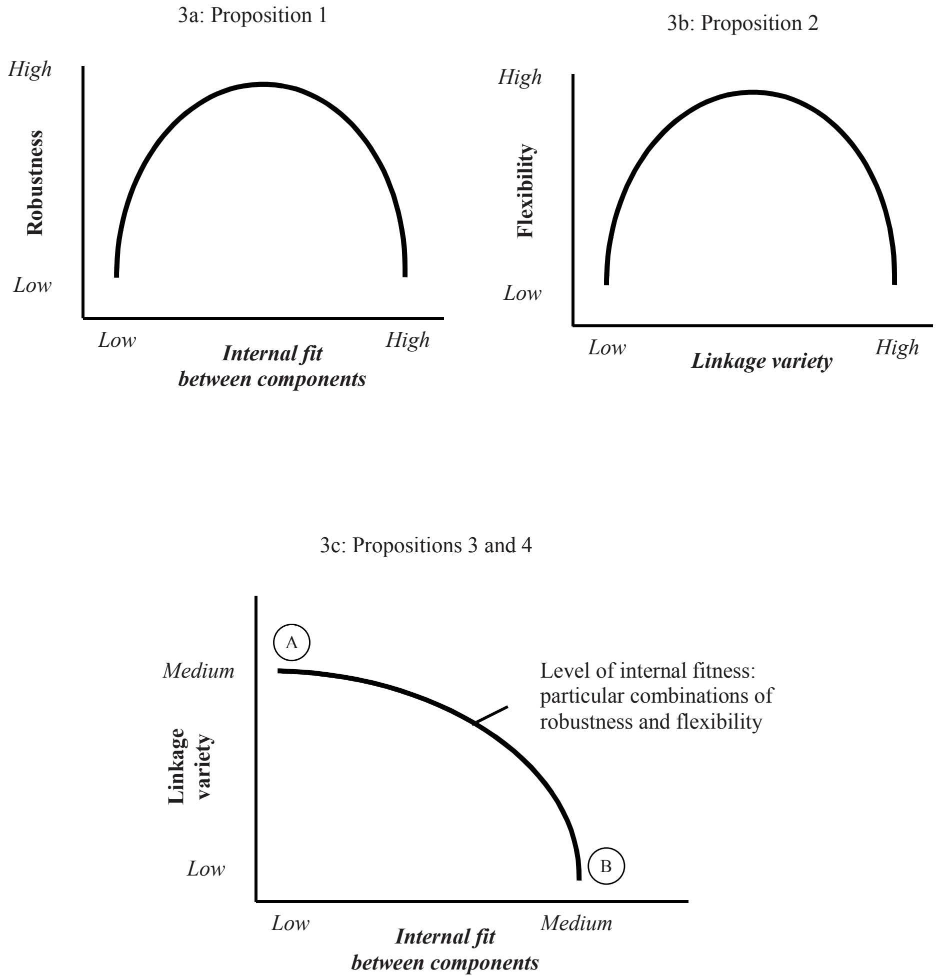

Figure 3.3: Demonstrating the conceptual framework (visualization of the propositions)

Roberts, 1993) and (b) the variety of mental models at upper echelons (Hambrick & Mason, 1984; Kilduff, Angelmar, & Mehra, 2000). The latter level assumes that, even though strategic ideas can also come from lower levels, members of the top management team are the unit's architects (Ansoff, 1979; Galunic & Eisenhardt, 2001; Howard, 1992).

The variety of knowledge indicates the internal possibilities for change—that is, whether the inputs needed for change exist within the unit or can be acquired in time

(Cohen & Levinthal, 1990; Leonard-Barton, 1995). In addition, broad knowledge facilitates the adoption of new knowledge and, consequently, rejuvenation (Schulz, 2003).

The variety of organizational design captures whether a unit actually utilizes the available variety of knowledge and dominant logic. A high variety of organizational design matches an organic organizational structure, an innovative culture, and nonroutine technologies (Burton & Obel, 2004; Volberda, 1998; Zammuto & O'Connor, 1992). These conditions enable and promote variety in how activities are linked and a utilization of the variety in knowledge and dominant logic.

The three linkages operate as a funnel: the linkage with the least variety determines the level of flexibility. All three functions are necessary: the *recognition* of valuable changes and an *understanding* on how to implement such changes, the internal *possibilities* to change, and the actual *utilization* of cognitive variety and knowledge variety. Absorptive capacity illustrates the interdependence between the three linkages in a similar fashion. Cohen and Levinthal (1990: 128) define absorptive capacity as "the ability to recognize the value of new knowledge, assimilate it, and apply it to commercial ends" (Cohen & Levinthal, 1990: 128). Again, the dominant logic captures recognition, the organizational design captures assimilation and application, and broad knowledge facilitates the assimilation of new knowledge (Schulz, 2003).

On the other hand, as the linkage variety becomes too large, the internal fit may lag behind and the strategic business model can fall into chaos—that is, there is variation without selection (cf. Nooteboom, 2000, 2002; Weick, 1982). Too much variety may also provoke conflict, division, and dissolution (e.g., Chatman, 1991; Harrison & Klein, 2007; Tajfel & Turner, 1979). The increase in available options that accompanies increasing levels of linkage variety makes decision-making and coordination more difficult, especially given that most environmental changes require a series of actions. Consequently, the speed with which units can find new configurations with sufficient fitness decreases, meaning that flexibility also decreases. Moreover, not all variety is important—its value is partly a function of the goals being pursued (Axelrod & Cohen, 2000).

In sum, abundant and rich linkage variety produces a flexible strategic business model. However, because a unit may be unable to effectively convert all linkage variety into flexibility and too much variety becomes obstructive, too much variety decreases flexibility. This relationship between linkage variety and internal fitness leads to the next proposition (see Figure 3.3b).

Proposition 2. The degree of linkage variety in a unit's strategic business model has a curvilinear (inverted U-shaped) relation with the strategic business model's flexibility.

3.6.3 Internal fitness: A tradeoff between internal fit and linkage variety

Any investigation of a unit's internal fitness requires simultaneous examination of internal fit and linkage variety. After all, internal fitness is made up of robustness and flexibility. More importantly, a combined examination is necessary because a tradeoff between the two becomes apparent. There are several reasons for this tradeoff.

First, flexibility requires variation, which in turn requires components to be less aligned and more varied. Eisenhardt and Martin (2000: 1116), for example, argue that to enable adaptation, "routines are purposefully simple to allow for emergent adaptation, although not completely unstructured". Internal fit, on the other hand, limits the degree of freedom for variation (Bar-Yam, 2004; Heylighen, 2002: 105; Hill & Rothaermel, 2003; Miller, 1996b). Not only that, in a strategic business model with a high degree of internal fit, any change, even very small ones, may produce avalanches of desired and undesired changes (Mreła, 1980). Consequently, flexible change and change of individual components become more difficult since preservation of internal fit requires changes of the entire (sub)system (Siggelkow, 2001).

The tradeoff also stems from the complexity of the strategic business model. On the one hand, the amount of the model's complexity is limited because—as expressed in Ashby's (1956) law of requisite variety—the effective complexity of a unit must match the complexity of its environment (Kuhn, 1986: 3). Whereas, on the other hand, both an increase in internal fit and an increase in linkage variety, add to the strategic business model's complexity (Axelrod & Cohen, 2000: 28). Therefore, once the complexity of the strategic business model matches that of its environment, the unit can only enlarge its internal fit by reducing its linkage variety and vice versa.

The tradeoff between internal fit and linkage variety shares some of the reasons for the widely recognized tradeoff between exploration and exploitation (March, 1991): "[R]esource scarcity, strategic priorities, industry standards and the fact that both activities have intrinsic advantages and disadvantages often force organizations to favor one particular evolutionary process over the other" (Masini, Zollo, & Van Wassenhove, 2004: 6). The above observations lead to the next proposition, illustrated in Figure 3.3c as a curved line.

Proposition 3. The tradeoff between internal fit and linkage variety gives rise to a tradeoff between the robustness and flexibility of the business model.

Because of this tradeoff, Figures 3a and 3b are interdependent. Both figures suggest that a medium level of internal fit and a medium level of linkage variety result in the highest degrees of robustness and flexibility, respectively. However, because of the tradeoff between internal fit and linkage variety, and because internal fitness depends on the combination of internal fit and linkage variety, a combined representation of internal fit and linkage variety is called for (see Figure 3.3c).

The curved line in Figure 3.3c reflects the maximum combined amounts of internal fit and linkage variety that a unit can effectively deploy for robustness and flexibility, respectively, which together determine the level of internal fitness. Therefore, to maximize internal fitness, the unit must operate somewhere *on* the curved line. However, combining a medium level of internal fit and a medium level of linkage variety results in a position that is off (above) the curved line (see Figure 3.3c) and therefore, as a result of the tradeoff between internal fit and linkage variety, such a combination does not generate the highest level of internal fitness.

In short, because of the tradeoff, a movement from point A (high internal fitness via low internal fit and medium linkage variety) to point B (high internal fitness via medium internal fit and low linkage variety) over the curved line in Figure 3.3c increases the business model's robustness and decreases its flexibility. Similarly, a movement from point B to point A over the curved line decreases the business model's robustness and increases its flexibility. Units achieve the highest internal fitness—given the location of the curved line—when they exploit a particular combination of internal fit and linkage variety located somewhere on the curved line. The level of internal fitness thus remains unchanged as the unit moves over the curved line. These arguments produce the final proposition.

> *Proposition 4. For units that combine internal fit and linkage variety in such a way that internal fitness is highest, increasing robustness (flexibility) necessitates a decrease in linkage variety (internal fit) and flexibility (robustness) in order to maintain the maximum level of internal fitness.*

3.6.4 Illustrative examples

One way to visualize a unit's strategic business model is to use system dynamics or causal loop diagrams to model the relationships between components and the relationships with the environment (Casadesus-Masanell & Ricart, 2007). Such an approach could be combined with analyses of the unit's linkages so as to explain how components are kept together and what the "common themes" at each level of temporal scale. There are numerous examples of studies using system dynamics for business modeling, including: Mahadevan (2000), Normann (2001), Linder and Cantrell (2000), Porter (1996), and Van der Heijden (1996). We would now like to examine a few short examples that illustrate robust and flexible strategic business models.

Ikea exemplifies a firm with a robust strategic business model, created by the internal fit between its strategic business model components. Ikea is in the business of home furnishing. Inputs and activities consistently work towards a manifestation of low costs, a high sales volume, and a wide product range (Björk, 1998). We shall look at how Ikea keeps its costs low. Ikea designs its products in such a way (e.g., flat packs that are assembled at the customer's home and customers' functional needs as the starting-point of the design) that keeps inventory, distribution, purchasing, and sales costs low. The travel costs of employees remain low due to careful planning by a special department and by employees traveling economy instead of business class. Furthermore, customer self-service combined with clear in-store displays, low-cost locations of stores, large volumes through for example international expansion, outsourcing of manufacturing to often highly specialized low-wage countries, all contribute to minimizing the costs. As debts are kept as small as possible and because of Ikea's high and stable profitability, the company has low interest costs. Large distribution centers and purchasing offices are important resources that make the low costs of Ikea hard to attain for new market entrants. In addition to consistency between components, we also find sources of reinforcement and context-dependent fit. For example, the product design makes self-service by customers easier and more practical. Here, design and self-service combined decrease costs more than the sum of both in isolation (Björk, 1998).

Aravind eye hospital is another good example of a robust strategic business model. Aravind's strategic intent is to eradicate needless blindness by offering affordable eye care surgery to low-income people in India (Prahalad, 2005). Their dominant logic is to achieve this through a consistent quality of eye care that results from a deeply understood and standardized process. Aravind's founder compares this with McDonald's, another firm with a robust business model. An important value driver within Aravind's strategic business model is the trust potential patients have in the firm, as trust is an important determinant of volume and therefore of costs. Aravind's culture (of service, humility, kindness, and equality; open and transparent), recruitment (via word-of-mouth, girls from a rural background with the right attitude), training, workflow on the surgical wards and in the outpatient departments (smooth and efficient through a computerized process and by escorting patients; highly skilled doctors as a result of far-reaching specialization), and community outreach programs, all reinforce each other and work toward building trust. The internal fit between these components and linkages generate value drivers, such as trust, that attain a level that is unattainable without such internal fit. This generates strengths that protect against environmental changes, and thereby create a robust business model.

An example of how linkage variety produces flexibility and how units can enhance their linkage variety can be found in Smith and Zeithaml (1996). They explore how the flexibility of two regional Bell operating companies improved as a result of their experiences in international expansion. The variety in knowledge and mental models that international managers obtained in unregulated markets—while their home market was regulated—were accessible to and integrated into the strategic business model in their home country.

Units may also augment their linkage variety through an increase in the diversity of experiences, purchase of codified knowledge, learning systems, changes in incentive systems, etc. For example, Wiersema and Bantel (1992) illustrate how the demography of top management teams can create diversity in cognitions thereby illustrating the importance of upper echelons (Hambrick & Mason, 1984). Volberda (1998) describes how Philips Semiconductors changed its organizational design and increased it innovativeness and responsiveness by "the development of autonomous task groups, interdisciplinary marketing-production-development teams, and less formal planning and control, combined with the development of a new logo for the plant, the organization of social events, special training, and a news bulletin for employees" (Volberda, 1996: 371).

3.7 Discussion

This study contributes to theory on competitive advantage, which is at the heart of strategic management. To facilitate the analysis, management and innovation of firms' dominant competitive logic, we seek to advance the widely used but still undertheorized and underresearched strategic business model concept. To this end, we propose a theory-based definition of the concept and build a conceptual framework based on a review of business model literature, strategic management theories and concepts of complexity theory, namely multiscale analysis and the distinction between components and linkages. In this way, we aim to bring progress to a concept that is able to connect several schools of thought and that enhances our understanding of sustainable competitive advantage. For the further generalization, other theories may also be incorporated in the conceptualization.

Why the strategic business model matters. The proposition section demonstrates that the assessment of sustainable competitive advantage requires a multi-theoretical approach as robustness and flexibility—and therefore sustainable competitive advantage—depend on multiple schools of thought and more importantly on their interdependencies. To be more specific, assessment of robustness requires assessment of internal fit between components that originate from multiple management theories. For example, the resource-based view of the firm (Barney, 1991; Wernerfelt, 1984) can be seen particularly in the inputs, value systems (Porter, 1985) in the activities, stakeholder theory (Freeman, 1984) in the manifestation, and learning theories (Fiol & Lyles, 1985; Argyris & Schön, 1978) in the rejuvenating clusters. In addition, this internal fit is managed through the linkages in which we again can identify multiple schools of thought such as the planning school (Ansoff, 1965), the cognitive school (Simon, 1976), the knowledge-based theory of the firm (Grant, 1996a,b) and the cultural school (Normann, 1977). Similarly, the assessment of flexibility requires an assessment of the variety of all three linkages, with each playing its own role. While the cognitive variety determines the *recognition* of valuable changes and an *understanding* on how to implement such changes, knowledge variety determines the internal *possibilities* to change, and the variety in organizational design determines the actual *utilization* of cognitive variety and knowledge variety. With the weakest linkage determining the level of flexibility (Harrison & Klein, 2007), such assessment thus again requires a multi-theoretical perspective.

An emphasis on just one level or one theory within our conceptualization gives an incomplete picture of competitive advantage. For example, although the resource-based view of the firm does assess a unit's valuable, rare and inimitable resources (Barney, 1991; Wernerfelt, 1984), even a complete understanding of a unit's inputs is unlikely to fully explain its competitive advantage, because the manifestation (the third level of temporal scale) is not simply an expression of a unit's inputs. Rather, whatever the unit's superior resources, their value-in-use (i.e., manifestation) depends on the other components and linkages, including how activities use, protect, and develop the inputs. In addition, even though small details can have an important bearing on a unit's manifestation, it may not be possible for researchers to know and/or analyze all details of the unit's inputs. Moreover, not only can the same inputs result in different manifestations, but multiple configurations can also underlie the same manifestation—i.e., there is equifinality (Dory et al., 1993; El-Hani & Pereira, 2000; Fiss, 2007; Ghemawat & Rivkin, 1999: 70; Gresov & Drazin, 1997; Wimsatt, 1994). In short, one level or one theory within our conceptualization gives an incomplete picture of competitive advantage because multiple levels contribute to competitive advantage, contributions of one level may not be deducible from other levels—due to emergence and equifinality—and because competitive advantage may depend on the interaction between multiple schools of thought.

Measurement suggestions. While this paper is conceptual in nature, future research could use case study research and survey methodologies. For example, Hypotheses 2 could be tested using the following existing scales: cognitive variety (Kilduff et al., 2000; Klimoski & Mohammed, 1994; Miller et al., 1998; Rajagopalan & Spreitzer, 1997), organizational design (Burton & Obel, 2004), knowledge variety (Lyles & Salk, 1996; Schulz, 2001, 2003; Zahra, Ireland, & Hitt, 2000) and flexibility (Grewal & Tansuhaj, 2001; Gibson & Birkinshaw, 2004; Saini & Johnson, 2005; Volberda, 1998). Further, with respect to the other hypotheses, robustness items are developed in Chapter 4 of the dissertation and for internal fit one could look at Porter and Siggelkow (2008) and Burton and Obel (2004).

Supersystem and metasystem transition. The curved line in Figure 3.3c reflects the maximum internal fit and linkage variety that a unit is able to effectively deploy to create respectively robustness and flexibility. Therefore, a unit that operates on the curved line has a maximum level of internal fitness, given the location of the curved line. In addition to management of internal fit and linkage variety with the aim of moving towards or over the curved line, units may also move the location of the curved line. Moving the curved line outward increases the maximum amount of internal fit and linkage variety that the unit is able to effectively deploy to create internal fitness and therefore increases the possible amount of internal fitness. Even though such a shift is possible through supersystem transition and metasystem transition (Heylighen & Campbell, 1995; Heylighen, 1999; Simon, 1962), the costs involved in both transition types mean that units should first maximize the current levels of transition before undertaking further transitions.

A unit's levels of supersystem transition and metasystem transition thus determine the amounts of internal fit and linkage variety that it can effectively deploy to create internal fitness. Supersystem transition occurs when two systems, that initially were not connected, bond together (Simon, 1962). Such a transition increases the number of connections (two systems that initially were not connected are now connected) as well as the number of distinctions (the variety of the supersystem is higher than that of either of the two systems). Consequently, the possible internal fit increases as more components within the supersystem can now form relationships that are internally fit. Furthermore, the possible variety increases, as the variety of the supersystem is higher than that of either of the two systems. Partnerships with other units are an example of a way to incorporate new subsystems of business model components. For example, eBay has bought several companies, amongst which Skype and PayPal, to increase its number of services. In this way, eBay incorporates new systems of business model components.

While supersystem transition particularly affects the potential internal fit, metasystem transition particularly affects the amount of variety that can be effectively deployed. Externally focused control systems scan and process external information in support of a system's continuous adaptation to and initiation of environmental changes. Consequently, they direct internal variations, which are then no longer blind, on a basis of information about the situation. Therefore, the amount of internal variety that a unit can effectively utilize to influence its environment, anticipate environmental changes, and adapt to these changes, depends on a unit's externally focused control systems (Heylighen & Campbell, 1995; Heylighen, 1999; cf. feed-forward control (Alkhafaji's, 2003; Preble, 1992), Simons's (1995) interactive control mechanisms, and Volberda's (1998) metaflexibility). Paragraph 5.3.4 discusses an example of a metasystem in the form of "learning through native capability". A metasystem transition occurs when a control system at the highest control level of some system becomes itself controlled, forming a higher order control system (Turchin, 1977). This hierarchy of control systems arises when units decrease complexity by decomposing decision problems into multiple simpler and relatively independent subproblems (Simon, 1962). It increases the conditions that the system is able to take into account because the higher-level control system enables variation within the lower-level control system. As a result, metasystem transition increases the variety that can be effectively deployed for flexibility. Metasystem transition and improvements in existing levels of control systems can take many forms in organizations, such as the number of organizational layers, the sophistication of environmental scanning systems, and activities that enhance a unit's monitoring, reflective capabilities and absorption capacity.

There are also costs involved with supersystem transitions and metasystem transitions (Heylighen & Campbell, 1995; Heylighen, 1999). With supersystem transitions, as the number and diversity of components increases, the unit requires more inputs from the environment and "maintenance" of the components becomes harder. The probability of errors increases and it becomes more likely for any of the components to malfunction. For metasystem transitions, the costs can be found in bureaucracy. A large number of levels of control slows down the decision-making process and increases the possibilities of noise and corruption (Heylighen, 2002). Therefore, it is best to make each level of control as intelligent and autonomous as possible, thereby minimizing the number of layers (cf. Aulin's (1982) law of requisite hierarchy).

3.7.1 Limitations and future research directions

In developing our framework and propositions, we note several limitations that merit discussion.

Simplified representation of reality. A model or framework is but a simplified representation of reality (Sterman, 2002). For example, internal fit may not be the only antecedent of robustness; slack may also enable a unit to deal with external changes without making changes in its strategic business model. Also, we recognize that scale types other than the two used may apply to strategic business models but treat these as a given. Nevertheless, we believe the conceptualization remains unaffected by other scales. For example, spatial scales can distinguish between different levels of aggregation or different geographical areas but do not affect our conceptualization. Further, "there is no single, a priori criterion for developing a hierarchy. Instead, a number of different hierarchies may be used to address different problem areas" (O'Neill, 1988). For example, Amit and Schoemaker (1993) combine resources and capabilities into the concept of strategic assets, while others, in contrast, choose greater differentiation by including not only resources, capabilities, and competences but other elements ranging from core competences (e.g., Prahalad & Hamel, 1990), different competence modes (e.g., Sanchez, 2004) and skills lying between resources and capabilities (Sanchez et al., 1996). Future research might examine the relationship between the preferred hierarchy and the research problem and research context.

Cognitive limitations and component importance. As managers face limitations on their cognitive capacity, it would be useful to identify the most important components within a unit's strategic business model. For instance, a unit's strategic business model might be looked upon as a set of responses to the business challenges that the unit faces (Cohen, March, & Olsen, 1972; March & Olsen, 1976; Snow & Hambrick, 1980), including how the investment is financed, how demand is ensured, and how revenues are collected. The importance of a business model component might thus be determined by the importance and urgency of the business challenge(s) on which it—with other components—focuses and its contribution to future ways of dealing with the business challenge(s) (cf. Siggelkow, 2002a). A complementary approach could apply the qualities of organizational identity to business model components. "[O]rganizational identity consists of those attributes that members feel are fundamental to (central) and uniquely descriptive of (distinctive) the organization and that persist within the organization over time (enduring)" (Pratt & Foreman, 2000: 20 on basis of Albert & Whetten, 1985). Hence, the importance of a business model component may be a function of the degree to which the value (creation, appropriation, and future viability) of a unit's solution to one or more business challenges decreases when the component is removed—i.e., the degree to which the component is central, distinctive, and enduring (cf. valuable, rare, imperfectly imitable, and non-substitutable; Barney, 1991, 2002).

Business model qualities. We discussed robustness and flexibility as business model qualities for the assessment of sustainable competitive advantage and touched upon external fitness as a third quality. Robustness and flexibility are dynamic in nature in that they capture the ability to deal with change. They thus capture the sustainability aspect of sustainable competitive advantage. External fitness, on the other hand, captures the static aspect of sustainable competitive advantage. It refers to how well a business model matches the context in which it operates. However, external fitness focuses mainly upon value creation. So while these metrics explicitly recognize value creation and future viability, they only take limited account of the drivers of value appropriation. Future research, therefore, might extend the proposed business model metrics with other metrics focused on value appropriation—such as efficiency, uniqueness, and bargaining power—and examine the mechanisms within the conceptual framework that generate these drivers of value appropriation.

In conclusion, the proposed conceptual framework of strategic business models offers avenues for new research on strategic management and sustainable competitive advantage and has implications for management practitioners as well. We discussed the strategic business model concept as a multi-theoretical perspective—i.e., based on multiple management theories—and illustrated the necessity of such a perspective to understand competitive advantage. Pragmatically, managers can use the framework to assess their own, as well as their competitors' way of conducting business and thereby gain an understanding of the dominant competitive logic with which units compete. Further, it may help managers and entrepreneurs formulate a consistent and logical design (e.g., Morris et al., 2005; Osterwalder & Pigneur, 2003; Van der Heijden, 1996), help them communicate more effectively with stakeholders (e.g., Magretta, 2002; Morris et al., 2005; Osterwalder & Pigneur, 2003) and fundamentally re-evaluate how business is done (Linder & Cantrell, 2000; Markides, 1997). Overall, an understanding of the strategic business model provides a basis for strategy development and renewal.

Appendix 3.I: Literature review of the business model concept

uthor & ear	efinition of a business model	usiness model components and linkages	cope	ggregation evel[a]	ime imension[b]	esearch design	xplicit / clear onceptual basis
Rappa (2004)	"… a business model is the method of doing business by which a company can sustain itself -- that is, generate revenue. The business model spells-out how a company makes money by specifying where it is positioned in the value chain."	n.a.	Economic	Corporation	Static	Theoretical	n.a.
Magretta (2002)	"They [Business models] are, at heart, stories - stories that explain how enterprises work. A good business model answers Peter Drucker's age-old questions: Who is the customer? And what does the customer value? It also answers the fundamental questions every manager must ask: How do we make money in this business? What is the underlying economic logic that explains how we can deliver value to customers at an appropriate cost?" "All new business models are variations on the generic value chain underlying all businesses."	A business model has two parts: "Part one includes all the activities associated with making something: designing it, purchasing raw materials, manufacturing, and so on. Part two includes all the activities associated with selling something: finding and reaching customers, transacting a sale, distributing the product or delivering the service."	Operational	Corporation and the lower levels	Static	Theoretical	n.a.

[a] We only mention the aggregation level that the authors discuss. However, most frameworks are applicable on multiple levels, although they are only discussed in the articles at one aggregation level.
[b] Whether renewal of the static business model components is part of the business model concept itself or an external force.

Author & Year	Definition of a business model	Business model components and linkages	Scope	Aggregation level[a]	Time dimension[b]	Research design	Explicit / clear conceptual basis
Amit & Zott (2001) Zott & Amit (2004) Amit & Zott (2002) Zott & Amit (2007)	"The holistic design of an organization's increasingly boundary-spanning economic exchanges can be described by the firm's business model. The business model can be thought of as the design of the overall structure ("gestalt") of the business, namely, the blueprint of how a firm conducts business. That is, the template of how a firm interacts and transacts with customers, partners and vendors. The design elements of the business model, which is centered on a focal firm, can be formally, and parsimoniously defined as the structure, content, and governance of transactions designed so as to create value through the exploitation of business opportunities."	"Transaction content refers to the goods or information that are being exchanged, and to the resources and capabilities that are required to enable the exchange. Transaction structure refers to the parties that participate in the exchange and the ways in which these parties are linked. Transaction structure also includes the order in which exchanges take place (i.e., their sequencing), and the adopted exchange mechanism for enabling transactions. The choice of transaction structure influences the flexibility, adaptability, and scalability of the actual transactions. Finally, transaction governance refers to the ways in which flows of information, resources, and goods are controlled by the relevant parties. It also refers to the legal form of organization, and to the incentives for the participants in transactions." Transaction structure refers to: • Who participates in the exchanges (players)? • How are exchanges executed (links)? • When and in what order do exchanges take place (sequencing) - What is the market mechanism? - How flexible is this structure (adaptability, scalability)? Transaction content refers to: • What information, or goods are being exchanged? • What resources and capabilities are required to enable the exchanges? Transaction governance refers to: • How are the information, financial and physical flows controlled, and who controls them? • What are the incentives for the participants in the business model?	Operational	Inter-industry and intra-industry However, only limited on the inter-industry and intra-industry level, i.e. with a focus on a nodal firm.	Static	Conceptual Empirical testing of the influence of four business model design themes on performance, namely efficiency, innovation, complementarities, and lock-in. A survey was filled in by trained expert raters of 190 emerging growth Internet firms. The effects of efficiency and novelty are significantly positive. The complementarity does not influence the performance of the nodal firm within the network.	"Specifically, we review how value is created within the theoretical views of the value chain framework, Schumpeter's theory of creative destruction, the resource-based view of the firm, strategic network theory, and transaction costs economics". Amit & Zott (2001: 494) However, these are not generic theories and the choice for the theories thus remains arbitrary.

Author & Year	Definition of a business model	Business model components and linkages	Scope	Aggregation level[a]	Time dimension[b]	Research design	Explicit / clear conceptual basis
Timmers (1998) Timmers (1999)	A business model is: • "An architecture for the product, service and information flows, including a description of the various business actors and their roles; and • A description of the potential benefits for the various business actors; and • A description of the sources of revenues."	• Architecture • Benefits • Sources of revenue	Operational	Inter-industry, intra-industry and corporation However, only limited on the inter-industry and intra-industry level, i.e. with a focus on a nodal firm.	Static	Theoretical. On basis of experience eleven e-commerce business models are discussed.	n.a.
Gordijn (2004) Kartseva, Gordijn, & Akkermans (2003)	n.a.	The e3-value methodology provides modeling concepts for showing the *exchange* of *objects* of *value* between *actors* performing *activities*. The e^3-value ontology has three points of view: • Global actors: the actors involved; objects of economic value; economic reciprocity; combinations of objects; phenomena causing exchanges of objects • Detailed actor: partnerships; constellations; expressions • Value activity: value creating activities and their assignment to actors	Operational; focus is more on processes and process outcomes and less on the stakeholders and sustainability	All levels	Static	Conceptual model on basis of literature review and case studies	n.a. Cornerstone of the e^3-value ontology is the notion of economic value, and how actors create, exchange, and consume objects of economic value
Howard (1992)	Paul Allaire refers to it as the organizational architecture. A formal definition is not given.	• Hardware: the formal processes by which things get done: the business planning system, control mechanisms, measurement systems, reporting relationships, rewards systems, and the like • People: the skills managers need, including the kind of personality and character they must have to operate effectively • Software (the architecture): the informal networks and practices linking people together, the value system, the culture	Operational	Corporation	Static. Change itself is not part of the organizational architecture. However, it is recognized that the business architecture needs to change over time as to preserve the fit with the environment	Exploratory case study: An interview with Paul Allaire, CEO of Xerox Corporation	n.a.

Author & Year	Definition of a business model	Business model components and linkages	Scope	Aggregation level[a]	Time dimension[b]	Research design	Explicit / clear conceptual basis
Riemer, Klein, & Mogolin (2002)	"Following the well-known definition by Timmers [1998], a business model is: • "An architecture for the product, service and information flows, including a description of the various business actors and their roles; and • A description of the potential benefits for the various business actors; and • A description of the sources of revenues.""	"Ergo, a business model can be characterized using the three elements: • Value proposition • Revenue streams and • Architecture"	Operational	Inter-industry and intra-industry However, only limited on the inter-industry and intra-industry level, i.e. with a focus on a nodal firm.	Static	Theoretical and a case study	n.a.
Porter (1996)	"Activity-system maps show how a company's strategic position is contained in a set of tailored activities designed to deliver it. In companies with a clear strategic positioning, a number of higher-order strategic themes can be identified and implemented through clusters of tightly linked activities."	• A system of activities • Value drivers • Value propositions • Organizational design	Operational / Strategic	Corporation	Static	Conceptual and case studies	n.a.
Chaharbaghi, Fendt, & Willis (2003)	"Business models are a representation of management thinking and practices that help businesses see, understand and run their activities in a distinct and specific way."	"… three strands are shown to be of central importance: the way of thinking, operational system, and capacity for value generation." These three strands are interrelated.	Operational / Strategic	Corporation	Static. The authors discuss a meta-model that lies behind changes in the business model. Thus, change is not part of the business model but a separate meta-model.	A conceptual model on basis of "studying a number of generic and specific cases." The generic cases are: Fordism, business process reengineering and electronic commerce.	n.a.

Author & Year	Definition of a business model	Business model components and linkages	Scope	Aggregation level[a]	Time dimension[b]	Research design	Explicit / clear conceptual basis
Mitchell & Coles (2003)	"It's simply a way of organizing a company to permit it to serve its customers in an effective way."	"A business model is composed of seven key elements – the who, what, when, where, why, how, and how much – that are viewed from the perspective of all direct and indirect stakeholders: • 'Who?' defines all the stakeholders you are serving or affecting. • 'What?' describes the offerings and their benefits and negative influences that affect each stakeholder. • 'When?' captures the timing of offerings' effects on stakeholders. • 'Where?' identifies the location for delivering benefits and other impacts. • 'Why?' gives the rationale for providing the stakeholder benefits you deliver. • 'How?' explains your method of providing your offerings and being compensated for them. • 'How much?' states the price customers pay and costs they incur."	Operational / Strategic	Corporation	Static However, the necessity of business model renewal is recognized.	Theoretical	n.a.
Hamel (2000)	"A business model is simply a business concept that has been put into practice." Business concept: no formal definition. The examples refer to the holistic explanation of 'how business is done' within by firm.	Components with sub-components: • Core strategy: business mission; product/market scope; basis for differentiation • Strategic resources: core competencies; strategic assets; core processes • Customer interface: fulfillment and support; information and insight; relationship dynamics; pricing structure • Value network: suppliers; partners; coalitions Linkages between components: • Configuration of activities: links core strategy and strategic resources • Customer benefits: links core strategy and customer interface • Company boundaries: links strategic resources and value network	Strategic	Corporation	Static. However, it is recognized that 'business concept innovation' is necessary but this change is not part of the business model.	Conceptual on basis of the author's opinion and experiences; but no conceptual basis for the author's methodology to analyze business models.	n.a.

Author & Year	Definition of a business model	Business model components and linkages	Scope	Aggregation level[a]	Time dimension[b]	Research design	Explicit / clear conceptual basis
Morris, Schindehutte, & Allen (2005)	"A business model is a concise representation of how an interrelated set of decision variables in the areas of venture strategy, architecture, and economics are addressed to create sustainable competitive advantage in defined markets."	Six components all exist at three levels. The components: • Value proposition • Customer • Internal processes and competencies • How the firm makes money • Competitive strategy • Growth and time objectives of the entrepreneur The levels: • Foundation level: Generic choices related to the six components; *what* the firm is doing, as opposed to *how* • Proprietary level: Unique approaches to the components; • Rules level: operating rules or guidelines that ensure the foundation or core components of the business model are reflected in the ongoing strategic actions of the firm	Strategic	Corporation However, with a focus on small businesses.	Dynamic	Conceptual on basis of a literature review. In addition a case study of Southwest Airlines. Further, some empirical testing in order to asses the existence of generic business models.	n.a.
Tikkanen, Lamberg, Parvinen, & Kallunki (2005)	"We define the business model of a firm as a system manifested in the components and related material and cognitive aspects."	• Material aspects, i.e. the tangible elements of a company's: - Strategy and structure: a company's strategic intent, strategy process, and the content of strategy - Network: A company's network of relationships - Operations: A company's process architecture; resource, capability and competence base; and product and service offerings - Finance and Accounting: A company's capital budgeting and financial reporting • Belief system: cognitive aspects, i.e. the systemic meaning structures or the belief system of a company • Business model evolution	Strategic	Corporation	Dynamic	Conceptual	n.a.

uthor & ear	efinition of a business model	usiness model components and linkages	cope	ggregation evel[a]	ime imension[b]	esearch design	xplicit / clear onceptual basis
Normann (2001) Normann (1977)	The business idea is "a unique, historically evolved set of factors related to each other in a pattern." It is "the concrete, functioning pattern of factors and their interaction which together determined and explained a company's way to make money."	"At the most abstract level one can distinguish between three: • The external environment, its 'needs' and values and what it is valuing – what is crucial to the larger system in which the organization works and which it can provide. • The offering (earlier on he used to term 'product' or 'product system') of the company. • Internal factors such as organization structure, resources, organized knowledge and capabilities, equipment, systems, leadership, values." • Linkages bring these factors together.	Strategic	Corporation	Static. However, concepts such as path-dependency and business model renewal are reckoned.	Theoretical	n.a.
Van der Heijden (1996) Van der Heijden, Bradfield, Burt, Cairns, & Wright (2002)	"… the business idea [model] is the organization's mental model of the forces behind its current and future success." "An organization's business idea can be described as its success formula in the competitive game. " The business idea describes the organization's competitiveness, on basis of the organization's unique way of meeting a scarcity in society.	"… the following four elements need to be specified in order to define a complete business ides [model]: • The societal/customer value created • The nature of competitive advantage exploited [differentiation, cost leadership, or both] • The distinctive competencies which, in their mutually reinforcing interaction, create competitive advantage • A positive feedback loop, in which resources generated drive growth."	Strategic	Corporation and the lower levels	Static. However, it is recognized that it is necessary to update the business idea but this change is not part of the business model. Further, dynamic feedback loops are explicitly part of the business model.	Conceptual	n.a.
Jansen, Jägers, Steenbakkers, & Melger (2003)	"A business model is a unique configuration of elements, which consist of strategy, processes, technologies and the governance of the organization. This configuration has been created as to create value for customers and consequently to be able to compete successfully in a certain industry." [translated by the authors]	• Strategy • Technology • Processes • Governance	Strategic	Corporation	Static. However, renewal journeys from one type of business model to another are also discussed, but not part of the business model itself.	Conceptual on basis of interviews and literature research	n.a.

| uthor & ear | efinition of a business model | usiness model components and linkages | cope | ggregation evel[a] | ime imension[b] | esearch design
xplicit / clear onceptual basis
Afuah (2004)	"A business model is a framework for making money. It is the set of which activities a firm performs, how it performs them, and when it performs them as it uses its resources to perform activities, given its industry, to create superior customer value (low-cost or differentiated products) and put itself in a position to appropriate the value."	"… a firm's profitability is determined by both industry factors and firm-specific factors (positions, activities, and resources). Thus, since business models are about making money, a business model must also depend on the factors that determine a firm's profitability. That is, a firm's business model is a function of its positions, activities, resources, and industry factors." To these components Afuah adds costs, because "performing activities generates costs, regardless of whether a firm is pursuing a low-cost or differentiation strategy, and firms do not always minimize their costs, even when they are so-called low-cost producers. Therefore, since profits are the difference between revenues and costs, cost should be a component of business models." • Positions • Activities • Resources • Industry factors • Costs	Strategic	All levels However, only limited on the inter-industry and intra-industry level, i.e. with a focus on a nodal firm.	Static. However, the necessity of business model renewal is recognized.	Conceptual. On basis of case studies and literature study.	n.a.
Mahadevan (2000)	"We argue that a business model is a unique blend of three streams that are critical to the business. These include the value stream for the business partners and the buyers, the revenue stream and the logistical stream."	• The "value stream identifies the value proposition for the buyers, sellers, and the market makers and portals in an Internet context. • The revenue stream is a plan for assuring revenue generation for the business. • The logistical stream addresses various issues related to the design of the supply chain for the business."	Strategic	Corporation	Static	Conceptual	n.a.
Dubosson-Torbay, Osterwalder, & Pigneur (2002) Osterwalder & Pigneur (2003)	"A business model is nothing else than the architecture of a firm and its network of partners for creating, marketing and delivering value and relationship capital to one or several segments of customers in order to generate profitable and sustainable revenue streams."	• Value proposition • Customer Relationship: target customers; channel(s); relationship • Infrastructure management: capabilities and resources; value configuration and activities; partnerships • Financial aspects: revenue model; cost structure	Strategic	Corporation	Static	Designed a conceptual framework on basis of a literature review and case studies in two industries	n.a.

uthor & ear	efinition of a business model	usiness model components and linkages	cope	ggregation evel[a]	ime imension[b]	esearch design	xplicit / clear onceptual basis
Voelpel, Leibold, & Tekie (2004) Voelpel, Leibold, Tekie, & Krogh (2005)	A business model is "simply described as its 'way of doing business' or its 'business concept' so that it can sustain itself." "The particular business concept (or way of doing business) as reflected by the business's core value proposition(s) for customers; its configurated value network(s) to provide that value, consisting of own strategic capabilities as well as other (e.g., outsourced/allianced) value networks and capabilities; and its leadership and governance enabling capabilities to continually sustain and reinvent itself to satisfy the multiple objectives of its various stakeholders (including shareholders)."	"From this definition the generic elements in business models are now clear: • new customer value proposition (which could also involve new customer base); • a new value network configuration for that value creation; and • leadership capabilities that ensure the satisfaction of all relevant stakeholders."	Strategic	Inter-industry, intra-industry and corporation	Static. Although the article focuses on business model reinvention, it is not a part of the business model itself.	Conceptual	n.a.
Linder & Cantrell (2000)	"An operating business model is the organization's core logic for creating value. … Only the business model components that are part of the essential logic are included, so one company's operating model may look dramatically different from another's." "A change model is the core logic for how a firm will change over time in order to remain profitable."	• How do we get and keep customers? What's our distinctive value proposition to each constituency? - Who are our customers and what are their needs? - What do we offer them? - How do we reach them? - How do we price? • How do we deliver distinctively? - How do we execute? - What are our distinctive capabilities? • How is our financial structure distinctive? • Distinctive Revenue Implications • Distinctive Cost Implications • Distinctive Asset Implications • Returns	Strategic	Corporation and the lower levels	Dynamic	Conceptual. Interviews with seventy company executives and analysts, as well as secondary research.	n.a.

CHAPTER 4: Can Private Businesses Really Build Profitable and Sustainable Business Models at the Base-of-the-Pyramid?*

Abstract

This paper examines the central postulate of base-of-the-pyramid literature that embedding social and environmental value in a firm's business model drives a firm's financial performance. We develop and test a theoretical framework that explicates the relationships between business model qualities and different types of firm performance. We argue that in the specific uncertain and heterogeneous business environment of the base-of-the-pyramid, dynamic business model qualities (robustness and flexibility) contribute to maintaining external fit, which in turn augments financial, social, and environmental performance. To test our theoretical framework, we collected in cooperation with NGOs, development organizations, and micro-finance institutions, a unique dataset of 143 firms operating in base-of-the-pyramid markets in a total of 105 countries. The findings suggest that dynamic business model qualities are positively related to external fit, which in turn is positively related to firm performance. In contrast to social performance, we do not find evidence that environmental performance adds to financial performance. These findings contribute to a more nuanced understanding of the central, yet criticized and previously untested, postulate on which base-of-the-pyramid literature rests, namely that the private sector its profit motive encourages firms to do good for the poor. In addition, we contribute to the emerging dynamic capabilities literature by conceptually developing and empirically testing robustness as a dynamic capability. Finally, the findings inform the corporate social responsibility literature on the contextual boundaries of the interplay between social, environmental, and financial performance.

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4.1 Introduction

There is an increasing amount of research on the opportunities for the private sector to do business with low-income people. This line of research is known as "base-of-the-pyramid" and "bottom-of-the-pyramid". The base-of-the-pyramid (BoP) refers to a socioeconomic group of deprived people that forms the "underclass" of society (e.g., London & Hart, 2004; Prahalad, 2005). It has often been defined in economic terms, i.e., as the people who live on a purchasing power parity of $2 a day or less—which is more than half of the world population (World Bank, 2006).

Proponents of the BoP idea assert that the size, unique characteristics, and underdeveloped economic activity of the BoP can offer the private sector opportunities for growth, innovation, and profit (e.g., de Soto, 2000; Hart & Christensen, 2002; Prahalad & Hammond, 2002). We see that there is an increasing tendency for firms to regard the BoP as a business opportunity and as part of their internationalization strategy. Equally, the idea of private sector involvement in the BoP has caught the attention of leading international organizations such as UNDP (e.g., UN Global Compact) and the World Bank (e.g., IFC), think tanks (e.g., WBCSD and NextBillion), NGOs, as well as of the political agenda, as can be seen in the role played by the private sector in the attainment of the Millennium Development Goals (Pearce, 2005; Sachs, 2005a). This interest from outside the private sector can largely be attributed to the belief that fundamental business skills—such as conducting market research, value chain management, risk assessment, and scaling up businesses—are vital not only for business success but *also* for the economic development of those living in poverty (Prahalad & Hammond, 2002; Rangan, Quelch, Herrero, & Barton, 2007; World Bank, 2005). Profitable business initiatives can stimulate new investments, innovation targeted at the BoP, and scaling up. Consequently, the private sector can generate employment opportunities, build local capacity, and augment choice for poor consumers with innovative products and services. This has resulted in the belief that the private sector has an important contribution to make to poverty alleviation, especially since other actors like NGOs and governmental organizations are criticized for their lack of business skills, their lack of efficiency, their bureaucracy, and limited sustainability.

This has led to the assertion that a potential win-win situation exists at the BoP as both low-income groups and the private sector would benefit from the private sector building businesses around low-income people (e.g., Hammond et al., 2007; Hart, 2005; Letelier, Flores, & Spinosa, 2003; London & Hart, 2004; Prahalad, 2005; Rangan et al., 2007; Seelos & Mair, 2007; Viswanathan, Seth, Gau, & Chaturvedi, 2007; WBCSD, 1997, 2004). More formally, the central postulate underlying BoP literature states that *for-profit firms operating at the BoP develop business model qualities that not only generate profits* *but their profit motive also drives them to create social and environmental value at the BoP, thereby creating sustainable business models*. This central postulate is also referred to as the "doing well by doing good by means of the business model" proposition (e.g., Karnani, 2007a).

Yet the private sector is an underdeveloped actor in the arena of poverty alleviation—in terms of investment as well as innovation (World Bank, 2005)—and firm-level research on the private sector in the BoP has equally remained largely limited to case studies. Most research on this theme has been published in popular literature while not much work on the role of the private sector at the BoP has appeared in the premier academic journals (London and Hart (2004) and Karnani (2007a) being notable exceptions). Moreover, there is a weak link between the theoretical arguments and empirical evidence in BoP literature (Walsh, Kress, & Beyerchen, 2005), and a systematic analysis of underlying conceptual issues is still in its formative stages (Ricart et al., 2004). As a result, some concern and criticism has been raised about the validity of the claims made in BoP literature about the size of the BoP market in terms of numbers of people and their purchasing power, about the romanticization of the BoP as resilient and creative entrepreneurs, about its overemphasis on the poor as consumers as well as an unjustified assumption of the poor being value conscious consumers. There is some question about its lack of attention to the role of SMEs but also its overemphasis on creating small-scale entrepreneurs out of the BoP (e.g., by providing microcredit)—which lack economies of scale and hardly create employment opportunities. Doubts have also been raised about its overstated potential profitability, its overemphasis on the role of the market at the cost of insufficient attention for governmental responsibilities, and a slant towards Western ideals of success and development (e.g., Jenkins, 2005; Karnani, 2007a,b; Landrum, 2007; Walsh et al., 2005). Most importantly, the validity of the central postulate within BoP literature is being questioned (Karnani, 2007a,b; Landrum, 2007; Walsh et al., 2005), the rejection of which would question the value of the BoP research stream. An empirical examination of this postulate has not yet been forthcoming nor has the conceptual development of the postulate received the appropriate attention in literature. As a result, the postulate has been theoretically ill-defined. Further explication and validation of the central postulate are therefore essential for the advancement of BoP literature.

In response to this, we conceptually advance and empirically test the central postulate in BoP literature that for-profit firms operating at the BoP develop business model qualities that not only generate profits but their profit motive also drives them to create social and environmental value at the BoP, thereby creating sustainable business models. In addition, we contribute to emerging dynamic capabilities literature by conceptually developing and empirically testing robustness as a dynamic capability. Furthermore, we contribute to corporate social responsibility literature. While in corporate social responsibility literature, the relationship between social performance and financial performance and the relationship between environmental performance and financial performance have been found to be positive but small (Margolis, Elfenbein, & Walsh, 2007), the postulate posits these relationships to be substantial for the BoP context.

We proceed as follows. In the next section we conceptually specify the central postulate by addressing the question of how to define business model qualities in the BoP. This results in hypotheses on the relationships between the business model qualities and their performance implications within the context of for-profit firms operating at the BoP. Next, the methodology section provides details of the procedures, data collection, and measurement. In the analysis section, we use structural equation modeling to test our theoretical framework. We find partial support for the central postulate underlying BoP literature. We conclude with a discussion of the findings and provide a basis for further theoretical and empirical work in this emerging area of inquiry.

4.2 Theory and hypotheses development

Two assumptions underlie the central postulate in BoP literature. The first assumption is that financial, social, and environmental performance at the BoP are inextricably bound up with each other (e.g., Chambers, 1997; Hart, 1997, 2005; Prahalad & Hart, 2002; Sen, 1999; World Bank, 2001). It is assumed that financial performance depends on a positive social and environmental performance and that the private sector's profit motive thus stimulates rather than discourages a positive social and environmental impact at the BoP. In the words of Hart (2005: 3): "Properly focused, the profit motive [of the private sector] can *accelerate* (not inhibit) the transformation toward global sustainability" (original emphasis). This assumption suggests that a win-win situation exists for low-income people and the private sector. Moreover, it suggests that the private sector can approach poverty alleviation, or at least poverty alleviation at a micro level, as a business strategy, making poverty alleviation core business instead of a disconnected philanthropic activity.

The second assumption is that the business model concept is the appropriate management construct for research within the BoP context (e.g., Arnold & Quelch, 1998; Chesbrough, Ahern, Finn, & Guerraz, 2006; Dawar & Chattopadhyay, 2002; Hart, 2005; London & Hart, 2004; Seelos & Mair, 2007). The reason for this is that the characteristics of the poor, and the challenging circumstances in which firms operate, generate business challenges specific to the BoP context (e.g., Banerjee & Duflo, 2007; Hammond et al., 2007). Consequently, success at the BoP requires innovative business approaches of which the logic significantly differs from approaches used at other tiers of the pyramid. Prahalad (2005: 25) for example, suggests that "quantum jumps in price performance are required to cater to BoP markets" as are cost structures that are much lower than those at the top-of-the-pyramid. But also disruptive innovations in, amongst others, distribution, value chain management, payment schemes, customer education, and human resources management can be necessary. Hence, success at the BoP requires disruptive innovation of multiple aspects of the ways in which firms do business and thus "it seems highly unlikely that a single theoretical perspective may be able to explain strategic decisions" in the BoP and "an integrated approach that brings together various theories may be more fruitful" (Wright, Filatotchev, Hoskisson, & Peng, 2005: 11). As the business model concept takes such a holistic, multi-theoretical approach (cf. Chapter 3), which is necessary for firms to reevaluate the full logic of how they do business, it is seen to be the right unit of analysis for firms in the BoP. Next, we conceptually advance the business model concept.

4.2.1 Business model concept for the BoP

"A business model is a concise representation of how an interrelated set of decision variables in the areas of venture strategy, architecture, and economics are addressed to create sustainable competitive advantage in defined markets" (Morris, Schindehutte, & Allen, 2005: 727). This suggests a strong link between the quality of a business model and a firm's competitive advantage (cf. Afuah, 2004; Magretta, 2002). Nevertheless, the business model describes how the components of the business model *address* the creation of competitive advantage, which means that business models can be either effective or ineffective in creating sustainable competitive advantage.

Existing explications of business model qualities (e.g., Zott & Amit, 2007) particularly stress qualities focused on static situations. However, such an approach takes insufficient account of the need for firms to deal with the dynamics of high environmental uncertainty at the BoP. For example, red tape (de Soto, 2000) and weak institutional infrastructures and legal frameworks (Globerman & Shapiro, 2003, Wright et al., 2005) create uncertainty. Furthermore, changeability of market conditions is high, especially in transition economies (Hoskisson, Eden, Lau, & Wright, 2000). Similarly, there is high heterogeneity in consumers and producers (Letelier et al., 2003) as well as in infrastructure (Dawar & Chattopadhyay, 2002). Therefore, our theoretical model includes qualities that together capture the static as well as dynamic requirements on firms' business models. More specifically, external fit is included so as to capture the static quality of the business model, while robustness and flexibility are included to capture the dynamic quality of being able to deal with differences and changes in local circumstances and dynamics. Put differently, the dynamic business model qualities allow the business model to maintain its static fit with the BoP environment. Our theoretical model is summarized in Figure 4.1. We expand our arguments below.

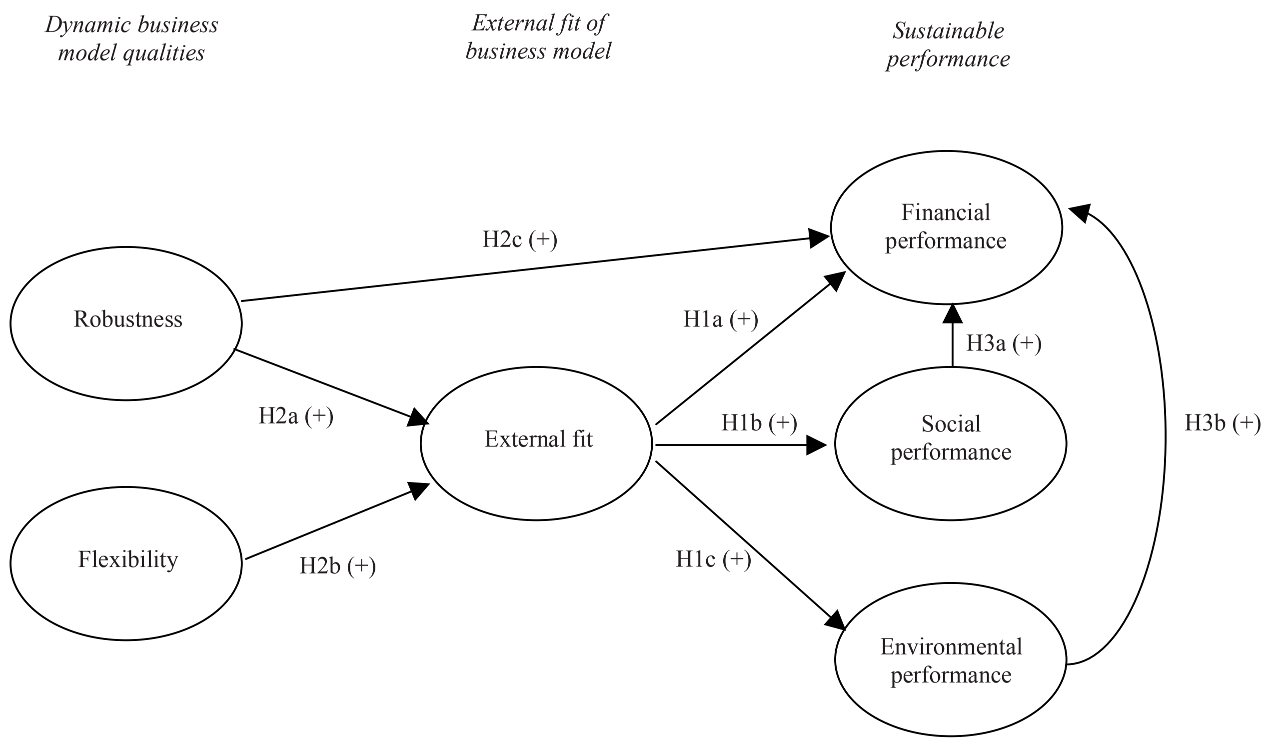

Figure 4.1: Hypothesized structural model

4.2.2 External fit of the business model qualities at the BoP

Nadler and Tushman (1980: 40) define congruence or fit as "the degree to which the needs, demands, goals, objectives, and/or structure of one component are consistent with the needs, demands, goals, objectives, and/or structure of another component". External fit refers to the extent to which the business model fits its external business environment—i.e., the degree to which the business model is adapted to, suited for, and optimally utilizes its business environment (Hannan & Freeman, 1984; Venkatraman, 1989). More external fit thus means that the firm's business model will be valued higher by the business environment as well as that the firm's business model makes better use of this environment. Therefore, the higher the external fit, the more effective and efficient a firm will be able to accomplish its goals (Nadler & Tushman, 1980; Venkatraman, 1989).

One way that external fit enhances effectiveness and efficiency is by advancing a firm's ability to deal with market imperfections in the BoP business environment thereby stimulating financial performance. As argued by Viswanathan et al. (2007), assumptions that hold for markets at the top-of-the-pyramid may not hold at the BoP. These include the absence of information asymmetries, the absence of market frictions, the assumption that government expenditure is in the best interest of the constituents, and well-developed and upheld legal codes. Therefore, a firm's financial performance depends directly on the extent to which its business model is capable of dealing with these market imperfections. Dealing with these market imperfections requires personal relationships (Viswanathan et al., 2007). Indeed, such ability depends on a firm's external fit because external fit stimulates a positive attitude from actors in the external business environment toward the firm, thereby enabling firms to become embedded within the local landscape and within social networks in which economic transactions at the BoP are blend (Narayan & Pritchett, 2000; Sánchez, Rodriguez, & Ricart, 2005; Tsai & Ghoshal, 1998). Such embeddedness enables firms to deal with market imperfections in the BoP business environment as it enhances legitimacy and trust, which may function as a governance mechanism (Nooteboom, Berger, & Noorderhaven, 1997; Petersen & Pedersen, 2002; Zaheer, 1995) and can be a substitute for legal contracts (Granovetter, 1985). Embeddedness also enables firms to build transaction capacity with the local business ecosystem (Hart, 2005; Letelier et al., 2003; Miller, 1996a). This includes building transaction transparency, a shared set of values, fairness and equality in transactions, and respect for agreements, irrespective of whether these are explicit or implicit and whether they are legal or social (Hart, 2005; Prahalad, 2005). Hence, we expect firms with a higher external fit to have a higher financial performance at the BoP.

Hypothesis 1a. The degree of external fit of a firm's business model is positively related to the firm's financial performance at the BoP.

The goals of firms serving the BoP are not only financial in nature but are also likely to have a social component. The reason for this is that the business environment of firms at the BoP is likely to value propositions with a social component (London & Hart, 2004). The living standard of the people at the BoP is very low, making their needs first and foremost social in nature (cf. Banerjee & Duflo, 2007; Hammond et al., 2007). People at the BoP are often organized in social networks, and social behavior within these networks provides a buffer for economic uncertainties, which, in the BoP business environment, may have dramatic effects on everyday life (De Souza Briggs, 1998; Knack & Keefer, 1997; Narayan et al., 2000a; Narayan & Pritchett, 2000). Indeed, (internal) solidarity plays a dominant role within society at the BoP (Udry, 1990) as do personal relationships in contrast to formal contracts (de Soto, 2000). To engage in economic actions with the BoP implies also to engage in social value creation. The BoP does not see value creation at these different levels as isolated spheres of activity. For example, Viswanathan et al. (2007) discuss how economic exchanges and social relationships are blurred. A "shared sense of facing adversity" creates a "1-1 environment with strong word of mouth effects" and a central role for fairness and trust, making "individuals respond to fairness in relationships at a human level rather than at the level of abstract notions of competition, reflecting their immediate needs and life circumstances" (Viswanathan et al., 2007: 5). Consequently, legitimacy and support necessitate firms to conform to social and cultural pressures and comply with the social behavior that is the norm and rule in BoP communities (e.g., Scott, 1995). Thus, fitting the needs of such an environment and building upon the strengths of its social networks—i.e., the establishment of external fit—includes social behavior, which is likely to generate a positive social impact.

Hypothesis 1b. The degree of external fit of a firm's business model is positively related to the firm's social performance at the BoP.

The natural environment may also be of concern to the people at the BoP (e.g., Hart, 1997, 2005; Prahalad, 2005; Sachs, 2005b). The environment is a daily lifeline for the poor. "Harvests from forests, fisheries, and farm fields are a primary source of rural income, and a fall-back when other sources of employment falter (World Resources Institute et al., 2005: 3). "As subsistence and small-scale farmers and fishermen, they [the BoP] are uniquely vulnerable to destruction of the natural resources they depend on" (Hammond et al., 2007: 5). Furthermore, due to its vast size, even a small increase in demand at the BoP can lead to serious environmental problems (Hart & Milstein, 2005; World Resources Institute et al., 2005). Environmental concerns may therefore be of crucial importance to stakeholders in the business environment (Hart, 1997, 2005). Limited natural resources make it difficult to imagine the BoP being included in the formal market system using business models showing a similar use of resources as those that are targeted at the rich. The richest 20% of the world population at present already consume between 60% (Hedenus & Azar, 2005) and 86% (Human Development Report, 1999) of all resources. Because of potential environmental problems, limited natural resources, the widening gap between poor and rich, and the intrinsic value of nature, growth at the expense of the environment is likely to encounter vigorous resistance (Hart & Christensen, 2002). Fitting the needs of this business environment—i.e., the establishment of external fit—thus calls for behavior that addresses environmental concerns, something which is likely to generate a positive environmental impact. Hence, realizing external fit at the BoP requires behavior from firms that addresses social and environmental concerns. Therefore, we hypothesize:

Hypothesis 1c. The degree of external fit of a firm's business model is positively related to the firm's environmental performance at the BoP.

4.2.3 Dynamic business model qualities at the BoP

We have hypothesized that the external fit of the business model at the BoP enhances a firm's financial, social, and environmental performance. However, external fit is a state that exists at a moment in time and may differ from one place to another (Wright & Snell, 1998). For, as the business environment changes, so may the external fit. This BoP context, in which environmental uncertainty and heterogeneity are significant (e.g., Dawar & Chattopadhyay, 2002; Hoskisson et al., 2000), calls for a longer-term dynamic perspective that assesses the ability to *maintain* external fit within a broad range of business environments.

Differences within the business environment from one context to another and from one moment in time to another may challenge firms' business models and possibly change their external fit from one context/moment to another (Uhlenbruck, Meyer, & Hitt, 2003; Wright et al., 2005). The majority of the people at the base-of-the-pyramid live in developing and emerging countries. Here, in emerging countries in particular, market conditions may change from day to day as a result of economic and political instability (Hoskisson et al., 2000; Jenkins & Thomas, 2002). Moreover, there is high heterogeneity in consumers and producers—such as a strong but diverse orientation on culture, traditions, and possibly religion (Letelier et al., 2003)—as well as in infrastructure, with large differences between the distant rural areas and the large, densely populated cities (Dawar & Chattopadhyay, 2002). Environmental uncertainties within the BoP, such as regularly changing business regulations, limited law enforcement, scarcity of market data, widespread product counterfeiting, and opaque power and loyalty structures, also contribute to changing external fit (Arnold & Quelch, 1998; Globerman & Shapiro, 2003).

Because external fit is only a snapshot and uncertainty and heterogeneity within the BoP business environment are substantial, it is important to explore the mechanisms that capture the ability to maintain external fit over time as the external environment changes. We distinguish between two such dynamic mechanisms or capabilities through which firms can preserve external fit under changing environmental conditions: flexibility and robustness (cf. Zajac, Kraatz, Bresser, 2000).

Teece, Pisano, and Shuen (1997: 521) describe flexibility as a dynamic capability to "scan the environment, to evaluate markets and competitors, and to quickly accomplish reconfiguration and transformation ahead of competition". Hence, a flexible business model is one that is able to adjust promptly to a broad range of business environments (Grewal & Tansuhaj, 2001; Volberda, 1996). This allows a firm to maintain external fit by modifying its business model in response to environmental change (Evans, 1991; Sanchez, 1995).

Robustness is another dynamic capability through which firms are able to deal with environmental change. A robust business model is one that is "not threatened by shifting contingencies" (Zajac et al., 2000: 434). This may be due to the possession of "resources that offset external pressures for change", something also argued by Selznick (1957), or "its local environment may shelter it from larger changes in its industry" (Zajac et al., 2000: 434). Similar arguments are presented by Hofer and Schendel (1978: 144) who suggest that exceptional resources can "parry the threats that [a firm] faces in its external environment" and thus mitigate its need for strategic adaptation to achieve external fit (cf. Zajac et al., 2000). Such a business model is an intrinsically stable whole, the external fit of which is insensitive to external changes, and is thus resistant to external perturbations, fluctuations, and noise without a qualitative structural change (Jen, 2003). Therefore, while a flexible business model maintains external fit by adjusting in response to environmental uncertainty and heterogeneity, a robust business model maintains external fit through the ability to buffer environmental uncertainty and heterogeneity.

Maintaining the external fit of the business model may thus occur through both the dynamic capabilities of flexibility and robustness. In sum, we hypothesize that the external fit of firms' business models in the BoP is greater for firms with business models with a high degree of robustness and flexibility:

Hypothesis 2a. The degree of robustness of a firm's business model is positively related to the business model's external fit at the BoP.

Hypothesis 2b. The degree of flexibility of a firm's business model is positively related to the business model's external fit at the BoP.

The BoP context is characterized by heterogeneity in culture, traditions, infrastructure, and group and organizational influences, creating many small, fragmented, and diverse markets (Dawar & Chattopadhyay, 2002; Letelier et al., 2003; Viswanathan et al., 2007). This fragmentation and diversity may inhibit the realization of economies of scale (Karnani, 2007b), unless firms operate with business models that are insensitive to this diversity in the BoP business environment. As they are able to buffer external changes, robust business models are easier to scale up to different business environments than less robust designs.

The more components act together and reinforce each other, the "stronger" and more effective the business model and therefore the greater its ability to parry external changes (Nilsson & Rapp, 2005). As reinforcement and collaboration between business model components creates robustness (cf. Chapter 3; Porter, 1996; Porter & Siggelkow, 2008), these business models are causally ambiguous in nature due to their internal interdependencies (Nelson & Winter, 1982).[15] This makes robust business models less prone to imitation by competitors (Reed & DeFillippi, 1990). Unless they copy the whole or complete subsystems of business models (Miller, 1996b), it is unlikely that competitors will be able to imitate parts of a robust business model since even small changes in the model can produce avalanches of changes with unpredictable consequences (Mreła, 1980). Business models with less integrated and thus less robust designs, on the other hand, are easier to copy since less consideration of connections between business model components is necessary. In many BoP markets, there are no well-functioning legal systems to protect proprietary firms' knowledge and processes. This makes the ease with which a competitor can copy a business model particularly important in the BoP context.

In sum, as robust business models can deal with the many differences in the BoP business environment more efficiently than flexible business models and are easier to protect from imitation without the need for a well-developed legal system, we hypothesize:

Hypothesis 2c. The degree of robustness of a firm's business model is positively related to the firm's financial performance at the BoP.

4.2.4 Sustainable firm performance at the BoP

Social needs are pressing at the BoP because of the low standard of living (cf. Banerjee & Duflo, 2007; Hammond et al., 2007). Where living standards are low, people can be

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[15] This applies to a robust business model that results from the interdependencies between business model components that offset external pressures for change, rather than robustness that results from building or selecting a local environment that shelters the business model from larger changes in its business environment.

expected to choose value propositions with a large social component—such as those value propositions that contribute to employment opportunities, the development of public services, the accessibility of primary life necessities, etc.—over value propositions that contribute less to their standard of living (Chambers, 1997; Hart & Milstein, 2003; Sen, 1999). They are in the first place looking for offerings that will make a positive social contribution to their lives. They are willing to pay for such offerings, as social value is a prevailing and pressing need. Moreover, they are inclined to distrust players beyond the small circle of the extended family, such as the private sector (Banerjee & Duflo, 2007). Disregarding social expectations at the BoP would only exacerbate this distrust, which would ultimately negatively affect financial performance. Therefore, although firms can create external fit in many ways, as external fit comprises many aspects, we contend that the creation of external fit by addressing social concerns is a particularly effective, i.e., financially profitable, strategy.

Growth at the expense of the poor would almost certainly meet with vigorous resistance (Stiglitz, 2002) from potential partners at the BoP, such as NGO's and local community groups. These have a strong social orientation and may require comparable dedication from the private sector (Chambers, 1997; London & Hart, 2004). Stakeholder theory argues that "failure to meet the expectations of various nonshareowner constituencies will generate market fears, which, in turn, will increase a company's risk premium and ultimately result in higher costs and/or lost profit opportunities" (Preston & O'Bannon, 1997: 421; Cornell & Shapiro, 1987). Catering to the needs of stakeholder constituencies, on the other hand, can positively add to the relationships with these stakeholders and augment a firm's reputation (Fombrun & Shanley, 1990), establish legitimacy (Ahlstom & Bruton, 2001), create social capital (Narayan & Pritchett, 2000), and consequently contribute to firms' financial performance (Donaldson & Preston, 1995; Jones, 1995).

Furthermore, value propositions with a social component are more likely to increase the productivity of people at the BoP (e.g., by improving their health and abilities, and their sense of purpose and motivation). Firms will be able to benefit from this through, for example, increased demand and labor productivity, all of which will contribute to the firms' financial success. These arguments produce the following hypothesis:

Hypothesis 3a. A firm's social performance is positively related to the firm's financial performance at the BoP.

The central postulate in BoP literature also hypothesizes environmental performance to augment financial performance. Nonshareowner constituencies do not only monitor and value the firms' social impact but also their impact on the environment, thereby influencing firms' reputation, legitimacy, and social capital (Sharma & Vredenburg, 1998).

Moreover, natural resources such as water, energy, and transportation are scarce and expensive. Consequently, environmental performance may improve firms' cost efficiency by, for example, reducing energy needs and enhancing renewability and durability of products. This too, would contribute to the firms' financial performance (Hart, 2005; Porter & Van der Linde, 1995).

Moreover, as is argued in Hypothesis 1, the livelihood of many people at the BoP is directly dependent on the natural environment, one of few assets available to low-income people (World Resources Institute et al., 2005). An example of this is small-scale fisheries, which are of great value to the poor as they provide an inexpensive source of protein and supplemental income. Thus, while everyone is affected by ecosystem degradation, the poor suffer the harmful effects disproportionately (World Resources Institute et al., 2005). In 1997-1998 10 million hectares of Indonesia's forests were burned affecting some 20 million people and costing US$9.3 billion in additional health care costs (Millennium Ecosystem Assessment, 2005). Thus, more than to those in high-income markets, degradation of the ecosystem has very real human and financial cost to the poor.

One would therefore expect the BoP to choose value propositions with a more positive environmental performance over those with a negative environmental impact. However, those living in poverty may often harm the environment, as they may be driven to inflict damage in order to ensure a minimum income (Roper Organization, 1990; World Resources Institute et al., 2005). They might not be in a position to take care of their natural surroundings if doing so would harm their livelihood, even if it would ultimately be in their best interests to do so. As it would have been for the island nation of Nauru, which depleted its natural resources through extensive phosphate mining, thus denying their people a source of food in exchange for short-term transient income (Gowdy & McDaniel, 1999). Hammond et al. (2007) therefore speak of subsistence as a "poverty trap". Hence, care for the environment may form a brake on economic development at the BoP, yet it is also valued by various nonshareowner constituencies and a necessity at the macro-level. Meeting the challenge of this situation requires creativity and imagination. To this end, firms increasingly recognize that "listening to the voices of the poor and disenfranchised can be a source of creativity and innovation" (Hart & Milstein, 2003: 63). Through such creative processes, firms engage in innovation and develop new capabilities that lower risks (Hart & Milstein, 2003), generate a source of differentiation (WBCSD, 1997), improve managerial practices, speed up regulatory approvals, enhance employee morale, and on the bottom line contribute to a firm's competitiveness (Porter & Van der Linde, 1995; Russo & Fouts, 1997; Sharma & Vredenburg, 1998). In fact, Sharma and Vredenburg empirically demonstrate how environmentally proactive firms outperform competitors with regard to the development of capabilities in stakeholder integration, higher-order learning, and continuous innovation, leading to a competitive advantage for environmentally proactive firms.

Environmental resource constraints can easily intensify at the BoP because the inclusion of such a large group of people may have a large impact on the limited available environmental resources. If this is not responded to appropriately, it could augment costs, which is something the BoP cannot afford to pay for. Therefore, firms that proactively deal with these environmental constraints will improve their financial performance. Although some advocate that care for the environment would not translate into financial performance, there are strong strategic arguments to support the central postulate in BoP literature. Therefore, we formulate the following final hypothesis:

Hypothesis 3b. A firm's environmental performance is positively related to the firm's financial performance at the BoP.

4.3 Data and methods

4.3.1 Study data

We conducted a survey amongst firms that have built their business model focused at the BoP. These are firms whose focal group of customers, employees, suppliers, and/or distributors have an average daily purchasing power of \$2 or less. Hence, the sample includes firms targeted at the poor as consumers as well those targeted at the poor as producers (or both). We focused exclusively on for-profit businesses—i.e., firms intending to be profitable or at least self-financing through revenue generation. Philanthropic enterprises were excluded. Firms were Western as well as local in origin and we included SMEs as well as initiatives by multinationals. An additional criterion was that firms should have at least 10 employees. This criterion ensured that the business model is indeed a central construct for the firm. Respondents themselves held a general strategic position within the firm. To ensure a clear unit of analysis, the respondent was instructed to fill in the questionnaire for a single enterprise, which should fit the above criteria (e.g., a specific business unit, a specific joint venture, etc., or the entire firm if the firm did not consist of multiple clearly distinguishable enterprises).

Fourteen organizations[16] cooperated in this study and provided us with contact details and the person to contact in 518 firms that they believed fitted the above criteria. The diversity in the focus of these fourteen organizations (different industries and countries, national as well as international organizations, SMEs and multinationals), their differences in origin (western and nonwestern), and different types of organizations (NGOs such as business networks, governmental organizations such as development organizations, and micro finance institutions) all facilitated the creation of a representative sample.

We followed the survey procedures as laid out by Dillman (2000). Five days after we sent respondents a pre-notice letter, we sent them a questionnaire with a cover letter from us, a letter of support from the sponsor who had provided the contact details, and a reply envelope with an international business reply number printed on it. Subsequently, a week later we sent a thank-you/reminder postcard and if, after some time the firm had not yet responded, we sent them an email. We followed these actions with a replacement questionnaire and, as a last reminder, a telephone call. Respondents were assured confidentiality.

Five organizations added steps to the above procedure because they expected difficulties in the delivery of questionnaires, they wanted to enhance the response rate, and/or they wanted to ensure that respondents with minor or no English skills were included. These five organizations visited the firms to request their participation and three of the organizations arranged for an interviewer to be present to help respondents complete the questionnaire. One organization translated the questionnaire. These steps helped ensure that all respondents understood the questionnaire correctly and enabled us to include people who did not speak English.

Of the 518 firms, 84 responded that they did not fit the study's profile criteria, 14 pre-notice letters were returned as undeliverable, and nine firms responded that their level of English was insufficient to participate (while we did not have a participating organization in that region to assist them with the questionnaire). Of the remaining 411 firms, a total of 162 questionnaires were returned. Nineteen of these questionnaires were deemed to be of insufficient quality by the authors. This resulted in 143 usable questionnaires for the analyses, which corresponds to an effective response rate of 34.8%.

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[16] World Business Council for Sustainable Development (WBCSD); Enterprise Ethiopia and Enterprise Uganda as part of UNCTAD-Empretec; SNV Cameroon Development Organisation and SNV Honduras Development Organisation as part of SNV International Development Organisation; Agency for International Business and Cooperation (EVD) (PSOM program); Business in Development (BiD) / NCDO; African Institute of Corporate Citizenship (AICC); Instituto Ethos de Empresas e Responsabilidade Social; PRIDE Tanzania as a partner of FMO; Cordaid; Oxfam Novib; and ICCO. The World Resources Institute kindly gave us permission to use the contact details on its website.

To test for nonresponse bias, we examined differences between early and late respondents (median split) (Armstrong & Overton, 1977). We did not find any significant differences ($p > 0.35$) between the two groups based on the number of employees, industry, firm tenure, or any of the model variables.

4.3.2 Measurement and validation of constructs

We undertook several measures to ensure the reliability and validity of the data (Churchill, 1999). On the basis of a literature study, continuous discussions with peers, and conversations with managers from organizations that work closely with firms at the BoP, we developed questions and generated pools of items for each construct. Where possible, we used existing items with proven validity. We pre-tested the questionnaire by seeking comments from academics and managers from organizations that focus on supporting firms that operate at the BoP. Then, we conducted six in-depth face-to-face interviews, which lasted between one and three-and-a-half hours, during which a senior manager of a firm at the BoP was asked to complete the questionnaire, indicate any ambiguity, elaborate on the story behind his or her answers, and was invited to suggest improvements to the questionnaire. After the fourth interview almost no further changes were necessary, and after the last two interviews we made no changes to the questionnaire. Finally, we conducted a pilot study amongst 70 firms, which are included in the total sample size of 518; we made no changes to the questionnaire after this pilot study.

We examined reliability issues associated with single-informant data by surveying additional members of randomly selected responding firms. Nine firms provided additional informants: three firms provided one additional informant, another three firms provided two additional informants, and three firms provided respectively three, four, and five additional informants. We calculated an interrater agreement score (r_{wg}) for each variable (James, Demaree, & Wolf, 1993). The median interrater agreement ranged from 0.62 to 0.92, suggesting adequate agreement for aggregation as it exceeds the generally accepted cut-off point of 0.60 (Glick, 1985). In addition, examination of intra-class correlations revealed a strong level of interrater reliability, as correlations were consistently significant at the 0.001 level (Jones, Johnson, Butler, & Main, 1983).

Common method bias. We examined whether common method bias might augment relationships by first performing Harman's one-factor test on the self-reported items of the latent constructs included in our study. The hypothesis of one general factor underlying the relationships was rejected ($\chi^2_{39} = 234.43$, $p < 0.01$). In addition, we found multiple factors, the first of which did not account for the majority of the variance. However, according to Podsakoff, McKenzie, Lee, and Podsakoff (2003), this test has several limitations and other methods may be better suited to identify common method bias. Therefore, we conducted several additional tests. First, the smallest observed correlation among the model variables can function as a proxy for common method bias (Lindell & Brandt, 2000). Table 4.1 shows a value of .06 to be the smallest correlation between the model variables, which shows no evidence of common method bias. Second, we performed a partial correlation method (Podsakoff & Organ, 1986). The highest factor between an unrelated set of items and each predictor variable was added to the model. These factors did not produce a significant change in variance explained in any of the three dependent variables ($p > 0.16$), again suggesting no substantial common method bias. Three, we constructed a marker variable (BoP involvement), which is theoretically unrelated to the study's principal constructs (Podsakoff et al., 2003). We examined the correlations among any of the items of the study's principal constructs and BoP involvement (Lindell & Whitney, 2001). Since the average correlation among BoP involvement and the items of the principal constructs was $r = 0.02$ (average p-value = 0.43), this test indicates that common bias is not a problem. In sum, we conclude that the evidence supports the assumption that common method bias does not account for the study's results.

Measurement model. We measured all items on seven-point Likert scales. We first factor analyzed all reflective scales (Robustness, Flexibility, External fit), using principal component analysis and varimax rotation. We analyzed the different dimensions of the scales to assess their unidimensionality and factor structure. We checked items if they satisfied the following criteria: (1) they should have communality higher than 0.3; (2) dominant loadings should be greater than 0.5; (3) cross-loadings should be lower than 0.3; and (4) the scree plot criterion should be satisfied (Briggs & Cheek, 1988; DeVellis, 1991). Six items did not satisfy these criteria and were removed. This resulted in a pool of 16 items and three factors: Robustness of the business model, Flexibility of the business model, and External fit of the business model. Each item loaded on the construct for which it was developed. We assessed the reliabilities of the constructs by means of Cronbach's alpha coefficient. The alphas are 0.69 (Robustness, four items), 0.73 (Flexibility, five items), and 0.79 (External fit, seven items). Furthermore, all items have significant correlations with their respective constructs, which suggests satisfactory item reliability (Hulland, 1999).

We used structural equation modeling (SEM) with EQS version 6.1 to further explore the validity of the scales by adding constraints to the measurement model (see Appendix 4.I). The measurement model obtained a satisfactory fit. The ratio of chi-square to degrees of freedom is 1.52; a value of less than 3.0 for the ratio indicates a good fit (Carmines & McIver, 1981). The CFI is 0.95 while a CFI value above 0.9 is considered an indication of good fit, and the RMSEA of 0.06 indicates good model fit because it does not exceed the critical value of 0.08 (Bentler & Bonett, 1980). We also used robust estimate techniques to assess sensitivity to the normality assumption and found again a satisfactory fit (χ^2/df =

1.07, CFI = 0.99, RMSEA = 0.02). Remaining item loadings were as proposed and were significant ($p < 0.05$), providing evidence for convergent validity. Composite reliabilities are all above the 0.60 commonly used threshold value for exploratory research (Nunnally, 1967). We verified the discriminant validity of the scales by comparing the highest shared variance between any two constructs and the variance extracted from each of the constructs (Hair, Anderson, Tatham, & Black, 1998). In all cases, each construct's average variance extracted (AVE) is larger than its correlations with other constructs, supporting the discriminant validity of the measurement model (Fornell & Larcker, 1981). Finally, none of the confidence intervals of the correlation coefficients between any two constructs contained 1.0 (Anderson & Gerbing, 1988). Thus, overall, the measurement model is acceptable, given this variety of supportive indices.

Multicollinearity among the independent variables was not a serious issue as all VIF scores were below 3 and the matrix decomposition resulted in condition numbers with values under 30. The higher condition numbers showed factor proportions with values higher than 0.5. Similarly, no evidence of heteroscedasticity was detected. Finally, no significant outliers were found.

Performance measures. We developed formative scales (cf. Jarvis, MacKenzie, & Podsakoff, 2003) for social and environmental performance, on which the respondent indicated the impact their firm had on the communities in which it operated. We used a seven-point Likert scale, which ranged from "large negative impact" to "large positive impact". Respondents were instructed to focus only on the impact of their core business and thus exclude the impact from philanthropic activities. We thus, excluded the impact firms have through their non-core activities, such as philanthropic initiatives. This makes it less likely that financial performance drives social and environmental performance, instead of the other way around. This enabled us to omit arrows in Figure 4.1 from financial performance to social and environmental performance, which would make the model statistically underidentified and thus impossible to estimate. Moreover, without this constraint we would not be able to test the central postulate, as the central postulate refers to the effect activities with a profit motive have on financial performance. For *social performance*, we adapted items from the AtKisson Compass, which builds on the Global Reporting Initiative (GRI) and the Dow Jones Sustainability Group Index (DJSGI) (AtKisson & Hatcher, 2001), and complemented these with adapted items from the International Association for Impact Assessment (IAIA). For *environmental performance*, we adapted items from the Environmental Sustainability Index (ESI) (Esty, Levy, Srebotnjak, & de Sherbinin, 2005) and the AtKisson Compass. Social performance and environmental performance are respectively represented by five and two dimensions, with a total of 16 and 10 items (see Appendix 4.II).

We measured *financial performance* using perceptual measures as well as accounting data on financial performance. We included the net profit margin to collect accounting data on financial performance. Accounting data were too often unavailable to include in the structural equation model. Nevertheless, perceptual measures have been found to be useful alternatives and to correlate highly with accounting measures (Dess & Robinson, 1984; Venkatraman & Ramanujam, 1987; Wall et al., 2004). In support of this, we found a positive correlation ($r = 0.21$; $p < 0.01$) between the perceptual performance and the net profit margin. We collected data on seven dimensions in order to capture the multidimensional character of financial performance (Venkatraman & Ramanujam, 1986). These were (1) sales growth; (2) customer satisfaction; (3) return on capital employed; (4) profitability and return on investment; (5) financial stability; (6) future prospects; and (7) overall performance (e.g., Gupta & Govindarajan, 1984; Lumpkin & Dess, 1995; Prahalad & Hammond, 2002). On each of these dimensions, the respondent was asked to rank their firm's performance compared with similar firms in their industry on a seven-point Likert scale (ranging from "very poor" to "outstanding").

Control variables. We also included questions to enable us to control for firms' age, industry, and size. Industry was measured using a categorical variable. Answer options were adjusted from the North American Industry Classification System (NAICS). For firm size, a categorical variable was included that measured the total number of people employed. Firm age was measured by asking for the year the BoP firm had its initial commercial sales.

4.4 Analyses and results

Table 2.3 (page 39) provides a summary of the sample, while the descriptive statistics of the variables and a correlation matrix can be found in Table 4.1. The respondents include firms from industries such as farming, healthcare, retail, financial services, private schools, and the energy sector. Respondents have an average tenure of 6.9 years in their current position and 11.3 years in their respective industries. Twenty-nine percent of them are the owner or partner and 45% are the CEO, director, or general manager. The average age of the enterprises is 14.3 years.

Table 4.1: Means, standard deviations, and correlations[a]

Variable	Mean	St. dev.	1	2	3	4	5	6	7
1. Age of the enterprise	14.29	21.19							
2. Financial performance	4.92	1.03	0.23						
3. Social performance	5.15	0.63	0.09	0.25					
4. Environmental performance	4.46	0.78	– 0.09	0.06	0.41				
5. Robustness	5.82	1.89	– 0.02	0.41	0.24	0.11	(0.77)		
6. Flexibility	4.51	0.92	– 0.10	0.29	0.23	0.18	0.27	(0.83)	
7. External fit	6.25	1.07	– 0.17	0.30	0.32	0.29	0.34	0.54	(0.74)

[a] Sample size = 143. Numbers in parentheses on the diagonal are AVE (Average Variance Extracted) of the latent variables. Correlations above |0.19| are significant at $p < 0.05$.

4.4.1 Hypothesis testing: Structural equation model

To investigate the full set of relationships posited by our hypotheses, we performed structural equation modeling using EQS version 6.1. Structural equation modeling is appropriate as it allows us to test a full system of structural equations, where a dependent variable in one relationship becomes an independent variable in another. We used a listwise procedure and 12 cases with missing values were removed from the analysis. Table 4.2 presents the structural paths from the SEM model, using Maximum Likelihood, with standard errors in parentheses. Robustness and flexibility as well as the error terms of social performance and environmental performance were allowed to co-vary. The overall model is insignificant ($\chi^2_5 = 5.57$, $p > 0.35$), which indicates that the model is not significantly different from the underlying data. Moreover, the CFI (0.99) and RMSEA (0.03) suggest that the standardized structural model fits the data well (Byrne, 1994). We also conducted a Lagrange multiplier test and found that no alternative specification of the parameters would have led to a model that represented the data better.

The results of the SEM analysis are provided in Table 4.2. As predicted by H1, external fit of the business model was positively and significantly related to financial ($\beta_1 = 0.18$, $p < 0.05$), social ($\beta_2 = 0.31$, $p < 0.01$), and environmental ($\beta_3 = 0.29$, $p < 0.01$) performance. Also, in support of H2a and H2b, robustness ($\beta_4 = 0.18$, $p < 0.01$) and flexibility ($\beta_5 = 0.49$, $p < 0.01$) of the business model were positively and significantly related to external fit. Furthermore, in support of H2c, robustness was positively and significantly related to financial performance ($\beta_6 = 0.31$, $p < 0.01$). Finally, in support of H3a, social performance was positively and significantly related to financial performance ($\beta_7 = 0.19$, $p < 0.05$). In contrast to H3b, the evidence does not support the hypothesis that environmental performance positively affects financial performance ($\beta_8 = –0.10$, ns).

Table 4.2: Structural equation model results of the standardized structural paths (Sample size = 143)

Structural paths / Model fit	β	Model	
H1a: External fit → Financial performance	β_1	0.18 (0.08)	*
H1b: External fit → Social performance	β_2	0.31 (0.05)	**
H1c: External fit → Environmental performance	β_3	0.29 (0.06)	**
H2a: Robustness → External fit	β_4	0.18 (0.04)	**
H2b: Flexibility → External fit	β_5	0.49 (0.09)	**
H2c: Robustness → Financial performance	β_6	0.31 (0.05)	**
H3a: Social performance → Financial performance	β_7	0.19 (0.14)	*
H3b: Environmental performance → Financial performance	β_8	–0.10 (0.11)	ns
Model fit			
χ^2_5		5.57	
GFI (absolute fit index)		0.99	
CFI (comparative fit index)		0.99	
NFI		0.96	
RMSEA (absolute fit index)		0.03	
90% confidence interval RMSEA		0.00–0.13	
$\mathbf{R^2}$			
External fit		0.33	
Financial performance		0.22	
Social performance		0.09	
Environmental performance		0.08	

† if $p < 0.10$; * if $p < 0.05$; ** if $p < 0.01$.

Sensitivity analyses. We conducted sensitivity analyses for our results by estimating structural equation models that included industry dummies, firm age, and firm size as control variables. The model as presented in Table 4.2 and the above results were robust to the inclusion of these controls. In addition, we tested the model while controlling for a direct relationship between flexibility and financial performance. This relationship proved insignificant and the model as presented in Table 4.2 and the above results were robust to the inclusion of this relationship. Furthermore, although we would expect robustness and flexibility to negatively covary, the findings show a positive covariation between the two. A possible explanation might be that the majority of firms are unable to develop the desirable amount of robustness and flexibility given the high environmental uncertainty and heterogeneity at the BoP. Therefore, each firm builds the maximum amount of flexibility and robustness that it is able to build. As a result, firms with better management abilities will be better at building robustness *and* at building flexibility than less able firms and will thus build more of both.

Limitations. Conclusions from the estimation results should consider some of its limitations. First, our data was self-reported assessments of senior managers (or directors/owners). Although we took several steps both in the design and testing phases to limit concerns regarding single-informant data, the issues of key informant bias and common method bias may still have influenced the results. However, a strong inter-rater agreement and inter-rater reliability, with the confidentiality that was assured for respondents reduced our concern that responses were biased. Several tests also provided strong evidence against the presence of common method bias. Second, the data employed in this study was cross-sectional. Although our results are largely consistent with the theoretical predictions, further longitudinal research should empirically establish the causal claims of our model. Third, the representativeness of the sample is unknown as there are no external data with which to benchmark our sample. However, we took several steps to limit concerns regarding sample representativeness. Most importantly, the large number of organizations that provided the contact details and their diversity in focus, type, and origin provide assurance that the sample is representative for firms at the BoP. Even though the sample does not purposely include extralegal firms, which make up an important portion of the economies in which most members of the BoP reside, these firms are likely to have fewer than 10 employees (de Soto, 2000) and are therefore not the focus of this study. We also tested for nonresponse bias and did not find any problems there. Fourth, we used perceptual measures for social and environmental performance. The extent to which respondents take into account their firm's indirect effects is unknown. For example, micro credit has been suggested to have positive but also negative effects on domestic violence if the women of the family are the only one able to obtain micro credit. Although perceptual measures for financial performance have been found to be useful alternatives and have been found to be highly correlated with accounting measures (Dess & Robinson, 1984; Venkatraman & Ramanujam, 1987; Wall et al., 2004), future research might want to examine the validity of perceptual measures for social and environmental performance—e.g., by comparing management-based perceptions with community-based perceptions by tracking BoP initiatives in the field.

4.5 Discussion

A central postulate in BoP literature is that for-profit firms operating at the BoP develop business model qualities that not only generate profits but their profit motive also drives them to create social and environmental value at the BoP, thereby creating sustainable business models. Our findings contribute to this BoP literature by empirically testing this postulate and by further explicating its relationships. To this end, we conceptualized business model qualities (external fit, robustness, and flexibility) that explain sustainable firm performance of firms whose focal group of customers, employees, suppliers, or distributors have an average daily purchasing power of $2 or less. The results demonstrate that flexibility is positively related to the external fit of the business model at the BoP. Furthermore, the results demonstrate that in addition to flexibility, the robustness of the business model has an indirect effect, mediated by external fit, as well as a direct effect on financial performance. This result extends dynamic capabilities literature with the notion that robustness is an important dynamic capability in the uncertain and heterogeneous business environment of the BoP. External fit is positively related to financial, social, and environmental performance and, overall, business model qualities explained about one-fifth of the firm's above-normal financial performance at the BoP. Social performance is also positively related to financial performance; however, in contrast to a widely held assumption in BoP literature, environmental performance is unrelated to financial performance. Collectively, these results support the central postulate underlying BoP literature, with the exception of the relationship between environmental performance and financial performance. Moreover, the relationship between social and financial performance is more substantial in the BoP context than the average effect reported in corporate social responsibility literature (Margolis et al., 2007). Environmental performance, on the other hand, has no effect on financial performance, while, on average, a moderate effect is reported in corporate social responsibility literature (Margolis et al., 2007). Therefore, this study demonstrates the specificity of the BoP context for the interplay between social, environmental, and financial performance. It thereby provides corporate social responsibility literature with information, to enable further theory building, on the role corporate social responsibility plays under different conditions (Whetten, 1989).

4.5.1 Implications

Dynamic business model qualities: Robustness and flexibility. The findings suggest that the external fit of the business model can be managed by its robustness and flexibility. Although flexibility contributes more to external fit, robustness also has a direct relationship with financial performance. In fact, our results indicate that external fit has a smaller impact on financial performance than robustness has. Thus, *it may be more effective for firms at the BoP to develop robust business models rather than to rely on flexibility to deal with uncertainty and heterogeneity in the BoP context*. The fragmented, diverse, and uncertain BoP business environment may not reward high responsiveness to local differences as it inhibits the realization of economies of scale from these business models. It is the ability to buffer, rather than the ability to adapt to environmental changes that explains success at the BoP. However, although robustness of the business model may be an efficient way to deal with diversity and change in the BoP business environment, it may also be a source of business model inertia, similar to the risks of core competencies becoming core rigidities (Leonard-Barton, 1992; Siggelkow, 2001). Financial performance as measured in the present cross-sectional study may not capture these long-term effects. Further longitudinal research of firms at the BoP may search for mechanisms by which firms at the BoP can, over the long run, balance the quality of the business model in buffering environmental changes and the quality of adjusting to changes within the external business environment.

External fit of the business model. The findings suggest that financial, social, and environmental performance can be managed through external fit. This supports the idea that the three types of performance are bound together through a common denominator as suggested by the first assumption underlying the central postulate. In addition to this, the positive relationships of external fit with social performance and with environmental performance suggest that *the BoP business environment values firms that address social and environmental issues*. It suggests that the BoP values firms that develop blends of value that go beyond economic value.

Sustainable firm performance. Social performance not only has a significant and positive relationship with external fit but also with financial performance. Therefore, firms aiming to make a profit at the BoP do well by creating a business model that has a positive social impact on the communities in which they operate. This supports the idea of the central postulate in BoP literature that *firms' profit motive motivates firms to do well by doing good socially*. Furthermore, it suggests that inclusive markets—i.e., a private sector that includes the poor as producers and consumers and offers them opportunities of products, services, and entrepreneurship—can be built and poverty can be alleviated through the private sector's profit motive.

These findings imply that integrating social value into a firm's business model facilitates (financial) success at the BoP and *addressing social issues is thus not adjacent, but central, to strategy at the BoP*. Such integration could, for example, enhance a firm's embeddedness in local communities, thereby augmenting the firm's ability to co-discover and co-create new business opportunities and business models with local stakeholders from low-income communities (Hart, 2005; Hitt, Li, & Worthington IV, 2005).

However, for the external fit of a firm's business model to be enhanced by the embedding of social value in a firm's business model, the social issues addressed need to be valued by the business environment. Therefore, future research might want to examine what kind of social impact would be valued by the business environment at the BoP and the circumstances under which it would be valued. Future research might also want to examine how firms can create a "sense of community"—i.e., how firms can get in touch with local concerns and create a blend of value beyond the economic based on these concerns (Sarason, 1974).

However, pro-poor economic growth is only truly sustainable if environmental sustainability is also ensured. The results of this study indicate that external fit of the business model is strongly related to environmental performance. There are, however, no financial incentives for a profit-seeking firm to operate in an environmentally sustainable way. Hence, *although the BoP appears to value environmental performance, firms seem unable to turn this preference into profits*. One reason might be that the BoP is unable to incur any of the costs associated with environmental value creation. Also, the BoP might be unable to penalize low environmental performance due to a lack of monitoring mechanisms. In fact, the BoP might be voiceless. In spite of the fact that the livelihood of those at the BoP depends "directly on natural resources, they have little say in how those resources are used, but suffer the consequences when the decisions are corrupt and the use is destructive (World Resources Institute et al., 2005: 4). Therefore, the profit-motive is insufficient to ensure environmental safe-keeping. Consequently, for private sector growth to be sustainable at the BoP, the existing profit motive should be accompanied by additional incentives to operate in an environmentally responsible way.

Institutional mechanisms at the BoP appear unable to force firms to incur the costs of their environmental performance. Developing regulatory frameworks and effective enforcement capabilities may improve the institutional mechanisms for imposing the environmental costs on firms. NGOs and other civil society groups may also have a particularly important role to play in critically monitoring the activities of BoP firms and the firms' compliance with environmental regulations. Governments, and in particular those in countries where most of the BoP resides, may not always have the capacity to monitor the private sector effectively (Globerman & Shapiro, 2003; North, 1990; Wright et al., 2005). The lower observability of environmental performance may also explain why environmental performance does not affect financial performance, while social performance does. This is a particular problem if activities take place in remote areas, such as in mining, exploitation of forests, or exploitation of natural resources at sea, which are not directly visible to the public.

Other incentives may take the form of self-regulation, particularly because corporate social responsibility has assumed an increasingly central role on the managerial agenda. Managers need to be aware that they stand to lose their legitimacy if they operate in an environmentally unfriendly way as business, in the long run, cannot succeed in a world that fails (Diamond, 2005; Hart, 2005). Self-regulation and the promotion of environmental stewardship are vital as care for the environment is in a firm's long-term interest. The parent company or financial institution could set requirements for investments in its BoP enterprises. Governments could develop this legislation, but industries could also self-organize and develop certification regulation.

The results also demonstrate a necessity for change in management thinking (Hart, 1997) since previous case studies suggest that it is possible to augment financial performance through a positive environmental impact (e.g., Hart, 2005; Holliday, Schmidheiny, & Watts, 2002; WBCSD, 1997). The question is whether such a positive relationship for these firms is the result of mere chance or the result of specific conditions. Future research might want to examine specific conditions under which it is possible to purposefully create financial performance through environmental performance and look at additional variables to include in the model proposed in this study, such as how firms may develop capabilities, from environmental performance, for higher-order learning and innovation in the specific institutional context of the BoP (Sharma & Vredenburg, 1998).

We hope that future research will further critically examine, test, and extend the model we have proposed in this study. Doing so will help ensure that research of the BoP deepens our understanding of competitive advantage in diverse and dynamic business environments—which is increasingly important at the top-of-the-pyramid—while contributing to poverty alleviation through profitable and sustainable business development at the base.

Appendix 4.I: Measurement items and validity assessment[a]

Overall model fit: $\chi^2_{65} = 98.931$, $p < 0.001$; *CFI* = 0.95; *RMSEA* = 0.06; *90% confidence interval of RMSEA: 0.04–0.08*	Standardized factor loadings
Flexibility: Cronbach's alpha = 0.73, composite reliability = 0.65, average variance extracted = 0.77	
Our management systems encourage employees to challenge outmoded traditions / practices / sacred cows[c]	[b]
Our business model is flexible enough to allow us to respond quickly to changes in our markets[d]	0.71
Our business model evolves rapidly in response to shifts in our business priorities[d]	0.82
It is difficult for our organization to change the uses and applications of its resources[e]	0.61
Our organization seeks to derive benefits from diversity in its operating environment(s)[d]	0.49
Our strategy reflects a high level of flexibility in managing risks[c]	0.63
Robustness: Cronbach's alpha = 0.69, composite reliability = 0.64, average variance extracted = 0.83	
Our business model is designed in such a way that changes outside our organization have no effect on the success of our business model	0.67
Operating successfully in other low-income countries requires adjustments to our business model	[b]
The success of our organization depends on managers' correct interpretations of the operating environment	[b]
Fluctuations in factors outside our organization would necessitate continuous adjustment of our business model	[b]
Our business model is designed in such a way that, without changes, it will also succeed in completely different market circumstances	0.66
Our business model has a stable structure	0.72
Our business model is an intrinsically stable whole that can resist external changes, fluctuations, and noise without a qualitative change in its design	0.72

External fit: Cronbach's alpha = 0.79, composite reliability = 0.74, average variance extracted = 0.74	
Our business model suits the environmental characteristics	0.74
The benefits we offer our customers are fine-tuned to their specific needs	0.78
The benefits we offer to our stakeholders fulfill genuine needs of stakeholders	0.65
Our organization's strategic direction co-develops with changes in our environment	0.65
Our organization does not take full advantage of the resources that exist in the communities in which we operate	[b]
Our business model and that of other organizations that we do business with are mutually adjusted to each other	0.50
In the communities in which we operate, our organization's business model builds local capacities beyond the products and services of our organization	0.50
Our organization takes full advantage of the skills and knowledge of the people and organizations in our environment	[b]
Our business model is optimally "adapted to" and "suited for" the environment in which we operate	0.61

[a] All items are measured on a 7-point scale with 1 "Strongly disagree" to 7 "Strongly agree". Includes reversed coded items.
[b] Item deleted from further analysis due to low factor loading.
[c] Item adapted from Gibson and Birkinshaw (2004).
[d] Item adapted from Grewal and Tansuhaj (2001).
[e] Item adapted from Saini and Johnson (2005).

Appendix 4.II: Formative items for firm performance

Financial performance[a]

Please rank your organization's performance compared to similar organizations in your industry using the criteria below. Answer irrespective of the degree of importance you attach to each performance criterion.

1. Sales growth
2. Customer satisfaction
3. Return on capital employed
4. Profitability and return on investment
5. Financial stability
6. Future prospects
7. Overall performance

Social and environmental impact[b]

Here we ask your perception of the social and environmental impact of your organization on the communities in which it operates. Impact may be direct or indirect—i.e., the *direct impact* of your organization's operations and the *indirect impact* through other actors.

The questions only refer to the *impact*, not the policies underlying these impacts. In addition, we are only interested in the impact of your organization's *core business*, not the impact of philanthropic activities.

Please indicate the degree to which your organization has a positive or negative impact *on the communities* in which it operates within the areas below.

Social performance	*Employment and income* 1. Impact on overall employment 2. Impact on overall skill level 3. Impact on livable wages 4. Impact on local entrepreneurship *Safety and security* 5. Impact on physical safety 6. Impact on resistance to natural disasters and climate change (e.g., hurricanes, earthquakes, floods, and the longer-term impact of climate change) *Governance* 7. Impact on the availability of clear and correct information from government agencies 8. Impact on the integrity of the legal system within the community

	9. Impact on participation of people in political decision-making
	Quality of life
	10. Impact on the infrastructure (housing, transportation, communication)
	11. Impact on the availability of primary life necessities (water, air, sanitation, utilities, nutrition, clothing, etc.)
	12. Impact on discrimination (e.g., in salary or gender)
	13. Impact on human rights (respect for the dignity and worth of all human beings and freedom from fear and want)
	Public services
	14. Impact on the availability of qualitatively good (regular) education
	15. Impact on health education
	16. Impact on the availability of qualitatively good healthcare services and products
Environmental performance	*Health of the environmental systems*
	1. Impact on the health of the terrestrial ecosystem, including its biodiversity
	2. Impact on the health of the aquatic and marine ecosystem, including its biodiversity
	3. Impact on air quality
	Environmental stresses
	4. Impact on the amount of overall material use
	5. Impact on the amount of water use
	6. Impact on the amount of energy use within the value chain, including customers
	7. Impact on the use of sustainable and renewable energy sources
	8. Impact on the amount of toxic discharges to the environment
	9. Impact on population pressure
	10. Impact on natural resource management (e.g., productivity overfishing; percentage of total forest area certified for sustainable management)

[a] All items are measured on a seven-point scale ranging from 1 "very poor" to 7 "outstanding". All levels of the scale had a description.

[b] All items are measured on a seven-point scale ranging from 1 "large negative impact" to 7 "large positive impact". All levels of the scale had a description.

CHAPTER 5: A Management Support Model for Developing Profitable Pro-Poor Business Models at the Base-of-the-Pyramid: On How to Analyze Base-of-the-Pyramid Case Studies

Abstract

In this study we develop a management support model for developing profitable pro-poor business models. First, we integrate knowledge from previous chapters into a methodology that enables analysis of business models that operate at the base-of-the-pyramid. Next, we address the question why some business models are successful at the base-of-the-pyramid whilst others fail. Addressing this question enables us to expand the methodology with business model qualities that if incorporated in a firm's business model, drive success at the base-of-the-pyramid and therefore provide criteria for the development of profitable pro-poor business models. These business model qualities are grounded in the characteristics of the base-of-the-pyramid, existing literature, and in case studies of firms at the base-of-the-pyramid. We examine the validity of the support model using 42 case studies. The support model offers managers and entrepreneurs a basis from which to develop profitable pro-poor business models at the base-of-the-pyramid, as well as offers an understanding of why some business models at the base-of-the-pyramid succeed while others fail. It also provides a systemic methodology for academics to use to analyze base-of-the-pyramid case studies.

5.1 Introduction

Research has shown that markets poorly serve and poorly include those living in poverty. More often than not the poor have little or no access to products, services, employment and entrepreneurial opportunities. If they do have access, markets may treat them disrespectfully and confront them with a poverty penalty: "[m]any in the BoP, and perhaps most, pay higher prices for basic goods and services than do wealthier consumers—either in cash or in the effort they must expend to obtain them—and they often receive lower quality as well" (Hammond et al., 2007: 5). Making markets work better for the poor presents both a business opportunity and an opportunity for poverty alleviation (cf. Chapters 1 and 4). Accordingly, the inclusion of those living in poverty in the market economy is a progressively important issue on the managerial and political agenda (e.g., Pearce, 2005). This can be seen by the creation of the Millennium Development Goals (Sachs, 2005b), which the United Nations set for 2015, and the attention poverty has received from leading international organizations (e.g., UNDP, World Bank, and World Resources Institute).

Unfortunately, although there is increasing private sector interest in doing business at the base-of-the-pyramid (BoP), there is little knowledge to guide such private sector endeavors. This research responds to this and aims to build a management support model that can provide a basis for companies to develop profitable pro-poor business models at the BoP. Moreover, we aim to contribute to the understanding of why some business models at the BoP fail whilst others succeed. In line with previous research at the BoP it is the business model concept that is the central construct in this study. Scholars and practitioners consistently advocate the (strategic[17]) business model concept as the locus of innovation and basis for success at the BoP (e.g., Chesbrough, Ahern, Finn, & Guerraz, 2006; Dawar & Chattopadhyay, 2002; Hart & Christensen, 2002; London & Hart, 2004; Prahalad, 2005; WBCSD, 2004, 2005).[18]

We proceed as follows. In the next section we explain the rationale of the management support model. We develop a methodology that enables analysis and evaluation of business models at the BoP. To this end, we reformulate the elicited business challenges of firms at the BoP from Chapter 2 into basic business questions, the answers to which make up a firm's business model. These answers are formulated using the "language" of Chapter 3 of the dissertation. Next, we expand the support model with

[17] Each time we refer to "business models", we refer to *strategic* business models (Morris, Schindehutte, & Allen, 2005; see Chapter 3 of the dissertation).

[18] See Chapters 1 and 4 for the reasons of this focus on this business model concept within BoP literature.

business model qualities that function as criteria for the development of profitable pro-poor business models. To this end, we address the question why some business models are successful at the base-of-the-pyramid whilst others fail. We examine the support model's validity and conclude with a discussion of the support model.

5.2 A management support model for developing profitable pro-poor business models at the base-of-the-pyramid

This section discusses the rationale of the management support model for developing profitable pro-poor business models at the BoP and develops its first part, namely the methodology that enables analysis and evaluation of business models at the BoP. Figure 5.1 visualizes the support model's rationale. First, the specific context of the BoP affects the business challenges—i.e., the organizational problems and opportunities—that businesses operating at the BoP face (see Chapter 2). This again has a bearing on the kinds of business questions a firm at the BoP needs to ask itself, as will be discussed in paragraph 5.2.1.

Furthermore, the BoP context entails certain characteristics, several of which are unique to those at the base of the socio-economic pyramid. Even though the characteristics of the BoP are often looked upon as problems instead of opportunities, it is important for firms to take advantage of them since doing business at the BoP is difficult enough as it is. In other words, it is important for businesses to see the positive in these characteristics, to build upon them, and to turn them into a competitive advantage.

The effects of the BoP context on business challenges and the characteristics of people and the business environment make it necessary for businesses to build their business model around qualities that are different from those at other tiers of the socio-economic pyramid. In fact, they make that the sources of competitive advantage at the BoP may differ from those at other tiers of the socio-economic pyramid. The reasons why some business models succeed at the BoP whilst others fail may thus differ from the reasons for success or failure at other tiers of the pyramid. In section 5.3 we develop business model qualities that are specific to the BoP context and which drive a firm's economic, social and/or environmental performance and provide a basis for business model development. Building business models around these qualities will result in new business models for firms at the BoP as illustrated in Figure 5.1.

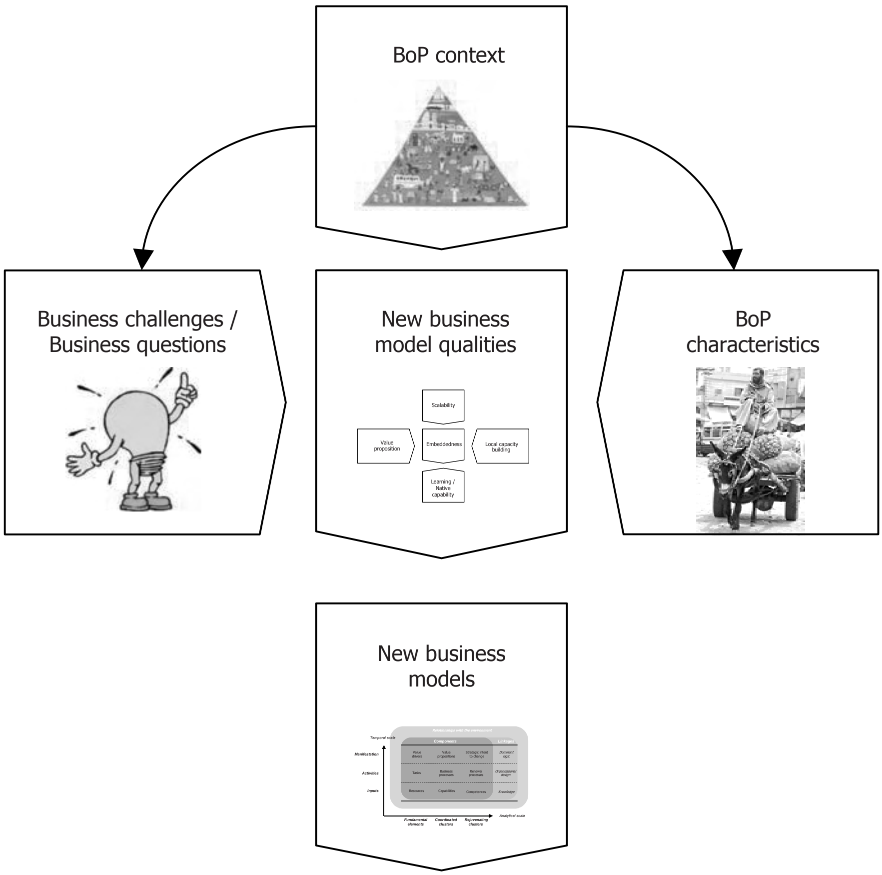

Figure 5.1: The rationale of the management support model for developing profitable pro-poor business models at the BoP

The management support model central in this study is based on the above rationale and works as follows. First, in paragraph 5.2.1 we argue that a firm's business model is a reflection of the way a firm deals with existing and prospective business challenges. Building upon this argument, we reformulate the elicited business challenges from Chapter 2 into business questions. Using the conceptualization of the business model concept from Chapter 3 (Figure 3.2) as the "language" to answer these business questions generates a methodology to establish the business model of a firm at the BoP. The last element of the support model is the evaluation of the business model as established through the previous steps, using the business model qualities that we develop in paragraph 5.3. This enables assessment of the appropriateness of the business model within the context of the BoP.

These business model qualities build on the characteristics of the BoP context, which we therefore shortly examine in paragraph 5.2.2. In sum, the support model consists of answering business questions, the answers to which are formulated in the language of Chapter 3 and evaluated according to the business model qualities as developed in paragraph 5.3. Figure 5.2 visualizes the elements of the support model. The business questions and the business model qualities in this study are BoP-specific, while the conceptualization of the (strategic) business model is not.

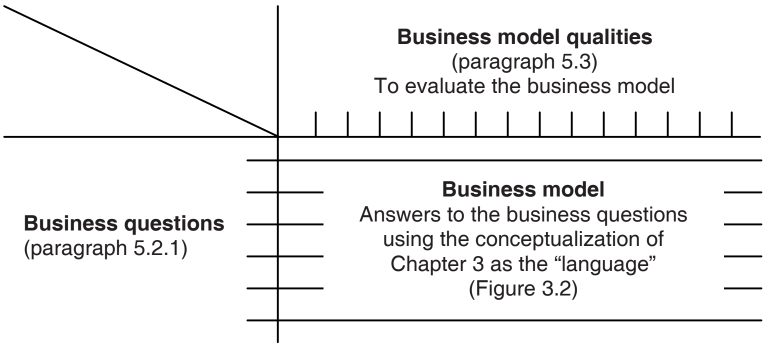

Figure 5.2: The management support model for developing profitable pro-poor business models at the BoP

5.2.1 Business questions: The business model as a reflection of how a business deals with its business challenges

Strategic issue diagnosis literature posits that firms respond and strategize in response to their interpretations of the strategic issues—or the organizational problems and opportunities, i.e., the business challenges—they perceive within the external environment and internal organization (e.g., Daft & Weick, 1984; Dutton & Jackson, 1987; Hambrick & Mason, 1984; Julian & Ofori-Dankwa, 2007; Thomas, Clark, & Gioia, 1993). This is supported by the fact that business challenges arise in response to market opportunities and threats as well as in response to internal strengths and weaknesses, and are key to a firm's performance and/or market position (cf. Ansoff, 1980; Heugens, 2005: 490; King, 1982; Thomas, Shankster, & Mathieu, 1994). Business challenges thus define the sources of competitive advantage, and a firm's value creation, value appropriation, and future viability depend on the way a firm deals with its existing and prospective business challenges. This suggests that firms should build their business model around business challenges. More specifically, business challenges define the kinds of questions firms need to develop an answer to in order to operate successfully and the way a firm deals with these questions defines that firm's business model.

These arguments suggest that a business model is a reflection of the way a business deals with its existing and prospective business challenges (Betz, 2002; Hedberg & Jönsson, 1977: 90; WBCSD, 2004; cf. the notion of a script by Abelson (1976) and Schank & Abelson (1977)). More specifically, the business model consists of those aspects of these responses that enable the firm to create value, appropriate value, and ensure its future viability (see Chapter 3). This idea is in line with various scholars who argue that firms anticipate and respond to their business environment and internal conditions—i.e., design their business model—on the basis of the existing and prospective business challenges they perceive (e.g., Daft & Weick, 1984; Dutton & Duncan, 1987; Hedberg & Jönsson, 1977; Kazanjian, 1988). For example, Kazanjian (1988: 258) argues, "as its problems [i.e., business challenges] change, an organization must alter its form [i.e., business model] accordingly". And Galbraith (1982: 70) argues, "[t]he crises of growth [business challenges] are the transitions into new phases of development of the business idea [business model] or a fundamental shift in the idea itself", thereby suggesting that as firms grow, new business challenges rise and as a result firms need to renew their business model.

Building upon the above argument allows us to develop a systematic methodology to determine and analyze business models, in addition to the framework already offered in Chapter 3. This methodology consists of questions, which are to be answered in the terminology of the framework of Chapter 3 (cf. Figure 3.2). In fact, since the business model is the representation of the way a business creates value, appropriates value, and ensures its future viability, one should answer each question in terms of how the business creates value, appropriates value, and/or ensures its future viability through the way it deals with that business question.

The business questions are thus grounded in the business challenges. Therefore, to formulate the appropriate business questions, we reformulate the elicited business challenges of Chapter 2 into basic business questions (cf. WBCSD, 2004). Since these business challenges were elicited from firms focused at the BoP, the methodology is BoP-specific. The exercise in which we convert the business challenges into business questions is presented in Appendix 5.I. This exercise resulted in 22 basic business questions as presented in Table 5.1 and visualized in Figure 5.3.

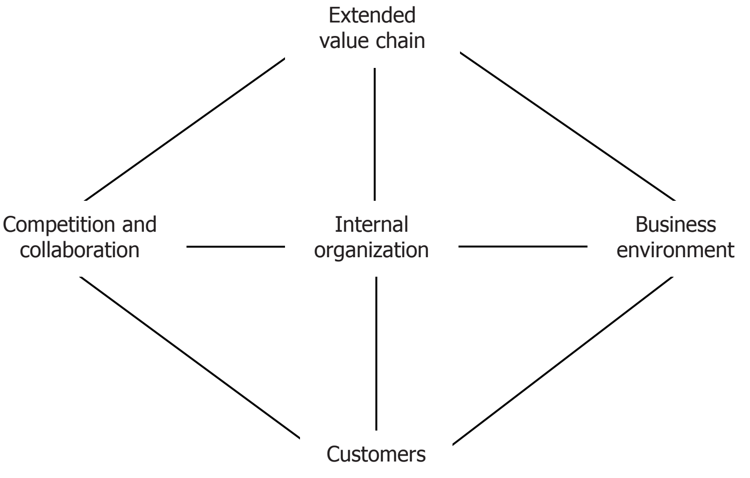

Figure 5.3: Net of basic business questions

Internal organization
1.How do we finance the investment?
2.How do we attract, build, and retain personnel with the desired capabilities?
3.How do we ensure the desired management skills internally?
4.How do we obtain the desired inputs? [i.e., resources, capabilities, competences, and knowledge; excluding human resources]
5.How do we organize our internal organization? [i.e., governance structure: coordination mechanisms, monitoring mechanisms, and culture]
6.How do we find improvement opportunities for our business model?[19]
7.How do we measure success?
8.How do we ensure social and environmental responsibility throughout the value chain?

Extended value chain (i.e., beyond the individual organization)
9.How do we organize and coordinate the value chain?
10.How do we reach our customers and the customers further downstream? [i.e., the physical delivery of products/services]

[19] Given that rejuvenation is part of the business model framework of Chapter 3, renewal is under review within each of the business questions. Nevertheless a separate business question on rejuvenation is added because rejuvenation can also be an independent activity separate from dealing with the other business questions. For example, an independent business unit may exist to develop corporate ventures that have little relation to the existing business, yet in the long term may affect the way business is done.

11.How are revenues collected throughout the value chain? 12.How do we stimulate related economic activities downstream? 13.How do we improve the activities upstream? <u>Customers</u> 14.How do we ensure that we understand the real needs within the market? [do we have the right product/service to offer given the needs?] 15.How do we ensure that there is demand for our product/service? [including marketing communication and customer education] 16.How do we ensure that our customers can afford our product/service? [including price model] <u>Competition and collaboration</u> 17.How do we scale up or replicate? 18.How do we differentiate ourselves from competitors and create competitive advantage? 19.How do we select and build the desired partnerships? <u>Business environment</u> 20.How do we shift mindsets?[20] 21.How do we deal with diverse and changing circumstances? 22.How do we deal with the government, regulations, and certification issues?

Table 5.1: The basic business questions

5.2.2 Characteristics of the BoP

Because the business model qualities that we develop in paragraph 5.3 should build upon the characteristics of those living in poverty, we here offer an overview of the characteristics of the BoP. This overview is not intended to be exhaustive but merely intended to give an idea of the characteristics often ascribed to low-income people in literature. For a more detailed analysis we recommend Banerjee and Duflo (2007), Chambers (1997), Hammond et al. (2007), and Narayan et al. (2000a,b).

The BoP is composed of people with diverse cultures, traditions, and religions (Letelier, Flores, & Spinosa, 2003). The conditions in which these people live, too, are different, for example the large differences between conditions in isolated rural areas and in sprawling, densely populated cities (Dawar & Chattopadhyay, 2002). Hence, characteristics differ considerably between different groups within the BoP. Hammond et

[20] This business question is placed in the category "Business environment" because it concerns the mindsets of many different groups, including customers, potential partners, and competitors (e.g., foundations that provide a similar product for free). Nevertheless, it may also concern internal mindsets (e.g., corporate headquarters of a multinational).

al. (2007) provide an excellent overview of how people in different regions at the BoP spend their money. Letelier et al. (2003) mention characteristics that are specific to the Muslim community, such as the practice of *purdah*, the existence of *tandas* (informal savings clubs), and patronage in which patrons "give and forgive loans". All of these examples are specific to one section of the BoP only.

Although many characteristics are specific to particular groups within the BoP and many characteristics are not limited to the BoP, Table 5.2 attempts to given an overview of characteristics frequently mentioned in relationship to those living in poverty. Since, by and large, the BoP resides in developing and emerging countries, some of the characteristics ascribed to the business environment in these countries are also considered characteristic of the BoP as they represent the environment in which they live.

Table 5.2: BoP characteristics

Setting

- People live in rural villages and urban slums.
- Impoverished living conditions. “Poor people live in discomfort, in unhygienic, dangerous, dirty, badly serviced, and often polluted environments where they are vulnerable to many physical shocks, stresses and afflictions” (Narayan et al., 2000b: 34).
- Insecure environments characterized by crime and violence (domestic as well in the society) (Narayan et al., 2000a,b).
- The typical family tends to be larger compared to higher-income people (Banerjee & Duflo, 2007).
- Stressed gender relations (Narayan et al., 2000a,b).
- “More than anything else, poor people dread serious illness within the family. Illness removes individuals from the labor pool and can push a household into poverty”, particularly as affordable healthcare is lacking (Narayan et al., 2000a: 42).
- “Poor people rarely speak of income but focus instead on managing assets—physical, human, social, and environmental—as a way to cope with their vulnerability, which in many areas takes on gendered dimensions” (Narayan et al., 2000a: 7). It is assets that the poor lack and need to obtain in order to survive and escape poverty, including “physical assets, particularly land and housing; human assets, such as health and entrepreneurial skills; and social assets or social networks” (Narayan et al., 2000a: 218).

Cognitive

- A strong but diverse orientation on culture, traditions, and possibly also religion (Letelier et al., 2003). In urban areas in particular, the sense of belonging to a specific tribe, with its own culture, may be strong and often defines a person.
- Feelings of “powerlessness, voicelessness, dependency, shame, and humiliation” (Narayan et al., 2000a: 7).
- Low self-esteem (Banerjee & Duflo, 2007), “with low literacy leading to fear of interaction, inability to ask or answer questions in conversation, avoidance of unknown products and unfamiliar pricing schemes, and feelings of futility in making enquiries or demands” (Viswanathan, Sridharan, & Ritchie, 2008: 213).
- Distrust (Banerjee & Duflo, 2007) and anxiety and fear for the future (Narayan et al., 2000a,b).
- High levels of stress yet not inclined to complain about health or life in general (Banerjee & Duflo, 2007).
- Banerjee and Duflo (2007: 165) sense “a reluctance of poor people to commit themselves psychologically to a project of making more money” possibly because “at some level this avoidance is emotionally wise: thinking about the economic problems of life must make it harder to avoid confronting the sheer inadequacy of the standard of living faced by the extremely poor”.

- Brand and value-conscious consumers (Prahalad, 2005) but vulnerable to marketing efforts from the private sector (Karnani, 2007a). Furthermore, they may not have fully developed consumer practices, i.e., these customers may be unable to make sense of themselves as consumers (Letelier et al., 2003).

Relational

- A strong social orientation (Chambers, 1997) and high importance of personal relationships in contrast to formal contracts (de Soto, 2000). “The maintenance of cultural identity and social norms of solidarity helps poor people to continue to believe in their own humanity despite inhuman conditions” (Narayan et al., 2000a: 7).
- People often organize in social networks. Social behavior within these networks provides a buffer to economic uncertainties, which in the BoP business environment may have dramatic effects on everyday life (De Souza Briggs, 1998; Knack & Keefer, 1997; Narayan & Pritchett, 2000; Viswanathan, Seth, Gau, & Chaturvedi, 2007). “Although friends, neighbors, professional ties, and links that extend beyond the community are critical assets for improving welfare, the most frequently mentioned coping mechanism for poor people is the extended family” (Narayan et al., 2000a: 44).
- “Even the most successful large NGOs do not reach the majority of poor households. … Thus, poor people throughout the world must trust and rely primarily upon their own informal institutions and networks” to survive, including the local holy man and the local nurse (Narayan et al., 2000a: 8). “The most important institutions in poor people’s daily lives are their own community-based groups and other local people. … Poor people value their own community-based organizations and informal networks because within them they feel they can be heard and make a difference” (Narayan et al., 2000b: 219-220).
- People are rapidly becoming connected and networked (Prahalad, 2005).

Economic: BoP as producer

- Entrepreneurial drive and motivation (Chambers, 1997; Prahalad, 2005). Indeed, many are self-employed, however, often not by choice. People are generally self-employed as a result of a lack of employment opportunities (Banerjee & Duflo, 2007). Karnani (2007a: 104) argues that a true entrepreneur “is a person of vision and creativity who converts a new idea into a successful innovation, into a new business model” and that such true entrepreneurs are scarce amongst the BoP.
- “Poor people are often described as tired, exhausted and worn out” (Narayan et al., 2000b: 34). Such is largely due to the hard work necessary to survive while at the same time lacking food and access to good healthcare.
- The self-employed poor operate at a small scale, with a low level of technology, and low skilled production (Banerjee & Duflo, 2007).
- Significant dependence on informal and subsistence livelihoods (Hammond et al., 2007). “The International Labour Organisation (ILO, 2002) estimates that more than 70% of the workforce in developing countries operates in the informal or underground

economy, suggesting that most BoP livelihoods come from self-employment or from work in enterprises that are not legally organized businesses" (Hammond et al., 2007: 16). Consequently, large informal sector in which most of the BoP operates (cf. Schneider, 2006). Indeed, the health of an economy includes producer cooperatives, communal enterprises, not-for-profit organizations, barter exchanges, self-provisioning, the love economy—which consists of work performed without pay for the family by the extended family—and even nature (Gibson-Graham, 2006; Hart, 2005; Henderson, 1999).

- The characteristics of the informal economy include "small scale economic activity, self-employment (usually including a high proportion of family workers and apprentices) little capital and equipment, labor intensive technology, low skills, low level of organization, limited access to organized markets, formal credit, training, and services" (Narayan et al., 2000a: 144).
- Significant levels of unemployment (Narayan et al., 2000a,b).
- Many poor people temporarily migrate to find work (Banerjee & Duflo, 2007).
- The poor usually have multiple occupations, resulting in a lack of specialization but it helps spread risks (Banerjee & Duflo, 2007; Chambers, 1997).
- Low level of education (often illiterate) (Chesbrough et al., 2006).
- Market imperfections: assumptions that hold for markets at the top-of-the-pyramid often not hold at the BoP. These include the absence of information asymmetries, the absence of market frictions, government expenditure being in the best interest of the constituents, and well-developed and upheld legal codes (Viswanathan et al., 2007).
- Lack of market access. Often people at the BoP "have no choice but to sell [their produce] to local employers or to middlemen who exploit them" and treat them disrespectful (Hammond et al., 2007: 5).
- Lack of information access (Karnani, 2007a; Narayan et al., 2000b).
- Lack of well-defined property rights (de Soto, 2000).
- Mountains of red tape. Problematic when setting up a formal business (de Soto, 2000).

Economic: BoP as consumer

- A low individual spending cap but a strong collective purchasing power (Hammond et al., 2007; Prahalad, 2005). The study by Hammond et al. (2007) deviated from previous definitions and defined the BoP as those with a purchasing power parity below US$3.000 a year. Others, using more stringent definitions of the BoP, have questioned the size of the market (e.g., Karnani, 2007a; Landrum, 2007).
- Significant unmet needs (Hammond et al., 2007).

- A poverty penalty: "[m]any in the BoP, and perhaps most, pay higher prices for basic goods and services than do wealthier consumers—either in cash or in the effort they must expend to obtain them—and they often receive lower quality as well" (Hammond et al., 2007: 5).
- Variability (over time) in income (Banerjee & Duflo, 2007).
- Products are purchased on an as needed basis (Prahalad, 2005).
- "Not surprisingly, food dominates BoP household budgets. As incomes rise, however, the share spent on food declines, while the share for housing remains relatively constant—and the shares for transportation and telecommunications grow rapidly. In all regions half of BoP household spending on health goes to pharmaceuticals. And in all except Eastern Europe the lower income segments of the BoP depend mainly on firewood as a cooking fuel, the higher segments on propane or other modern fuels" (Hammond et al., 2007: 4).
- "Sector markets for the 4 billion BoP consumers range widely in size. Some are relatively small, such as water ($20 billion) and information and communication technology, or ICT ($51 billion as measured, but probably twice that now because of rapid growth). Some are medium scale, such as health ($158 billion), transportation ($179 billion), housing ($332 billion), and energy ($433 billion). And some are truly large, such as food ($2,895 billion)" (Hammond et al., 2007: 28).
- "Spending on festivals is an important part of the budget for many extremely poor households" (Banerjee & Duflo, 2007: 146). "The need to spend more on entertainment rather than on food appears to be a strongly felt need, not a result of inadequate planning" (Banerjee & Duflo, 2007: 163).
- "[A]mong the nonfood items that the poor spend significant amounts of money on, alcohol and tobacco show up prominently" (Banerjee & Duflo, 2007: 145).
- Accurate knowledge about potential consumers is not readily available (Grosh & Glewwe, 1995).
- Chesbrough et al. (2006: 57) argue that adoption of new solutions is slower at the BoP because the pace of life is slower, it takes firms time to find the right business model in response to the many unique challenges, consumers require training and education, and poor infrastructure makes communication more difficult. Letelier et al. (2003) agree.
- Once consumers have the opportunity and the right business model has been found, Prahalad (2005: 50-51) argues there is a fast diffusion and absorption of technologies. One of the reasons is that there is minimal need for 'unlearning'.

Macro-economic conditions (the BoP mainly resides in developing and emerging countries)

- A lack of basic infrastructure, particularly roads, transport, and water (Narayan et al., 2000a).
- Poorly developed distribution systems (Arnold & Quelch, 1998).
- Availability of communication channels may be constrained and market data may be scarce (Arnold & Quelch, 1998).

- Diversity in consumers, producers, and infrastructure (Dawar & Chattopadhyay, 2002).
- Large differences between distant rural areas and the very large and densely populated cities.
- High changeability of market conditions, particularly in transition economies (Arnold & Quelch, 1998; Hoskisson, Eden, Lau, & Wright, 2000; Jenkins & Thomas, 2002; Peng, 2000).
- Institutional infrastructures and legal frameworks are often weak (Globerman & Shapiro, 2003; North, 1990; Peng, 2000; Wright, Filatotchev, Hoskisson, & Peng, 2005). Consequently, fraud and corruption may be prevalent (Robertson & Watson, 2004; Rodriguez, Uhlenbruck, & Eden, 2005; Uhlenbruck, Rodriguez, Doh, & Eden, 2006). Think also, for example, of product counterfeiting (Arnold & Quelch, 1998).
- “Poor people report that their interactions with state representatives are marred by rudeness, humiliation, harassment, and stonewalling” (Narayan et al., 2000a: 8).
- Governments often neglect the needs of the poor (Narayan et al., 2000a,b).
- In summary of Narayan et al. (2000a,b), the website of the World Bank reports: “Poor people seek institutions that are ‘effective,’ ‘trustworthy,’ ‘uniting,’ ‘dependable,’ ‘respectful,’ ‘courteous,’ ‘truthful,’ ‘listening,’ ‘not corrupt’ and ‘not corrupting’. They want to develop their own organizations so they can effectively negotiate fair partnerships with governments, with traders and with NGOs; they want direct assistance and local ownership of funds through community-driven programs, with governments and NGOs accountable to them” (http://go.worldbank.org/NTVCW2JYW0).

5.3 BoP business model qualities

In this section we address the question why some business models are successful at the BoP whilst others fail. We propose that performance differences can be explained by certain business model qualities that, if incorporated in a firm's business model, drive success at the BoP and therefore provide criteria for the development of profitable pro-poor business models. Hence, we posit that successful firms at the BoP share common business model qualities, although a business model does not necessarily need all qualities to be successful (Prasad & Ganvir, 2005). The development of these business model qualities is grounded in the characteristics of the BoP and in existing literature, predominantly from business administration—particularly strategic management on the BoP—development economics, and anthropology. In addition, we drew inspiration from the many case studies of BoP firms we read over the last couple of years. In fact, we examined the validity of the business model qualities and the management support model as a whole using 42 case studies of firms focused at the BoP. Paragraph 5.4 elaborates on the procedure of this analysis.

Given the purpose of this study is to assist in the analysis of the appropriateness of a business model for the BoP context, the focus of the business model qualities is on qualities that are BoP-specific and utilize the context's unique characteristics. It should also be stated that firm performance not only depends on the absolute accomplishments on the business model qualities but also on their relative accomplishments, i.e., in comparison to competitors. Furthermore, interdependence between business model qualities is key for performance, something we elaborate on in the discussion section.

Important to stress is that there is not a single formula for success at the BoP nor is there a step-by-step plan that guarantees success. As a matter of fact, we would like to stress that the intention here is *not* to turn success into a recipe or to prescribe how firms should act at the BoP. On the contrary, the aim here is to build a framework of qualities that add positively to sustainable performance at the BoP *without* prescribing to firms *how* to perform well on these qualities. In other words, we offer anchor points for the creative process of developing the right business model. This way the support model provides firms with a basis from which to develop business models at the BoP as well as a framework that can pinpoint weaknesses in the appropriateness of business models for the BoP. Moreover, in this way, the management support model and in particular the business model qualities can change people's mental maps in a way that they better fit the BoP context—i.e., they change people's belief systems, core assumptions, and frames of reference with regard to the BoP. In Chapter 2 we argued that such revision of mental maps is generally a necessity for developing sustainable pro-poor business models.

Figure 5.4 portrays the framework of business model qualities. We distinguish between five dimensions, which together capture the BoP's desire, capacity, and possibility to do business with the firm, as well as the business model's potential to improve in the future and its potential size. The five dimensions are:

1. The firm's value proposition, which captures the BoP's *desire* to engage in business with the firm.
2. Local capacity building through the firm's business model, which captures the BoP's *capacity* to engage in business.
3. The embeddedness of the firm in local communities, which captures the extent to which the business is an integrated part of the lives of those at the BoP and the BoP perceives doing business with the firm to be an actual *possibility* for them.
4. Inclusion of learning in the business model, which captures the extent of *learning* by the firm through native capability and therefore its capacity to improve over time.
5. Scalability of the business model, which captures the *potential scale and scope* of the business model.

The horizontal axis of Figure 5.4 depicts today's business. The axis' rationale is that if people at the BoP are doing well and the business enables people to thrive, the business itself will benefit. This rationale suggests a strong link between the business model's contribution to local development and business success. The contribution a business can make to help people "develop their full potential and lead productive, creative lives in accord with their needs and interests" (UNDP, 2001: 9) is strongly reflected in the business model qualities. Amartya Sen (1999: 18) refers to these as "substantive freedoms" and "instrumental freedoms", which respectively represent the freedom and capabilities of people "to lead the kind of lives they value; and have reason to value" and the freedoms that facilitate people to acquire such substantive freedoms.

The BoP's willingness or desire to do business with the firm depends on the firm's value proposition, which must hold sufficient value for the BoP. A supportive local capacity spurs local vibrancy, creates an atmosphere of industriousness, and augments people's capacity to engage in economic activities. But desire and capacity alone are insufficient. Psychological and cultural barriers need to be lifted and the business model needs to develop a local presence within everyday life. Only then will people accept it and truly see it as an option for them to do business with. For this the business must become firmly embedded in the local communities. The correct value proposition and successful local capacity building can fuel this embeddedness. A business can only be embedded in a community if it has a business model that is indigenous and builds upon local customs and conditions, instead of a business model that enforces a way of doing business that goes against existing customs and circumstances. The extent to which a firm is truly present as an indigenous actor—instead of is perceived as an "alien" force from the outside—determines whether the BoP can identify itself in the firm and feels comfortable doing business with it.

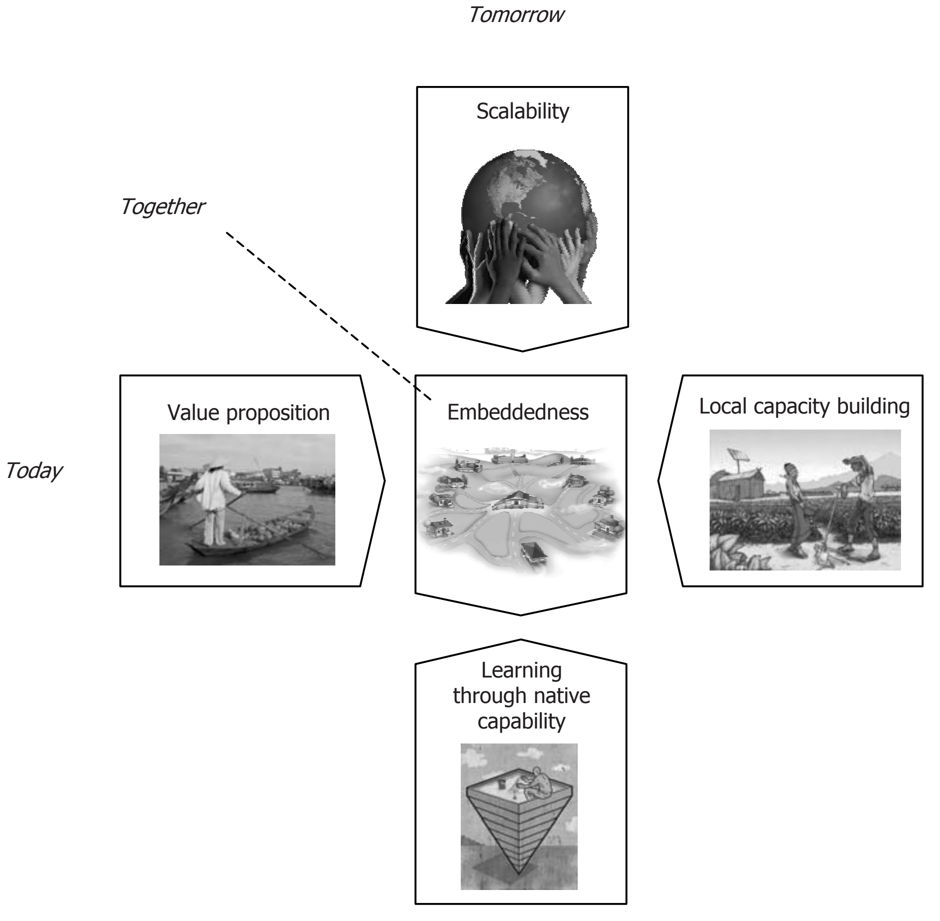

Figure 5.4: Framework of BoP business model qualities 3T: Today, Together, Tomorrow[21]

[21] The framework spans multiple levels; it includes relationships between the firm and individuals at the BoP as well as relationships between the firm and communities at the BoP. While the value proposition primarily concentrates on the value proposition to individuals (families), the dimensions of local capacity building, embeddedness, and learning primarily occur within the context of a community (or part of a community or multiple communities).

The vertical axis depicts the business of tomorrow. It includes change in the form of learning and captures growth in the form of the scalability of the business model. Learning may advance each of the other dimensions and builds upon the business's embeddedness as learning takes place with the people at the BoP. Scalability captures the potential scale and scope on which the business model operates.

In the next sections we identify business model qualities within each of the five dimensions, an overview of which is given in Figure 5.5. While the five dimensions discussed above might appear somewhat general, they are fundamentally different from those in higher-income markets. These differences stem from the fact that their specifications, i.e., the business model qualities within these five dimensions, are based on characteristics that set the BoP apart from markets and people in higher tiers of the socio-economic pyramid. Although several of the business model qualities can also be observed in higher-income markets, they are different in form and/or intensity at the BoP. Moreover, when the specifications of the five dimensions are seen together, it becomes obvious that this broad set of distinct and challenging requirements can only be tackled with a comprehensive set of (disruptive) innovations in a firm's competitive logic. This combination of requirements and the fact that they occur simultaneously sets the BoP context apart from higher-income markets and makes the business model the appropriate lens for analyzing businesses at the BoP (cf. Chapter 1). It is not our intention to discuss each business model quality in depth; just some more than others. We aim to include lagging as well as leading criteria. Making assessments on the business model qualities requires the assistance of multiple stakeholders who are knowledgeable about and/or experienced with the business's performance on these criteria. For example, people at the BoP may be better able to assess the usability of a product or service or the social comfortability with a proposition than the firm's managers.

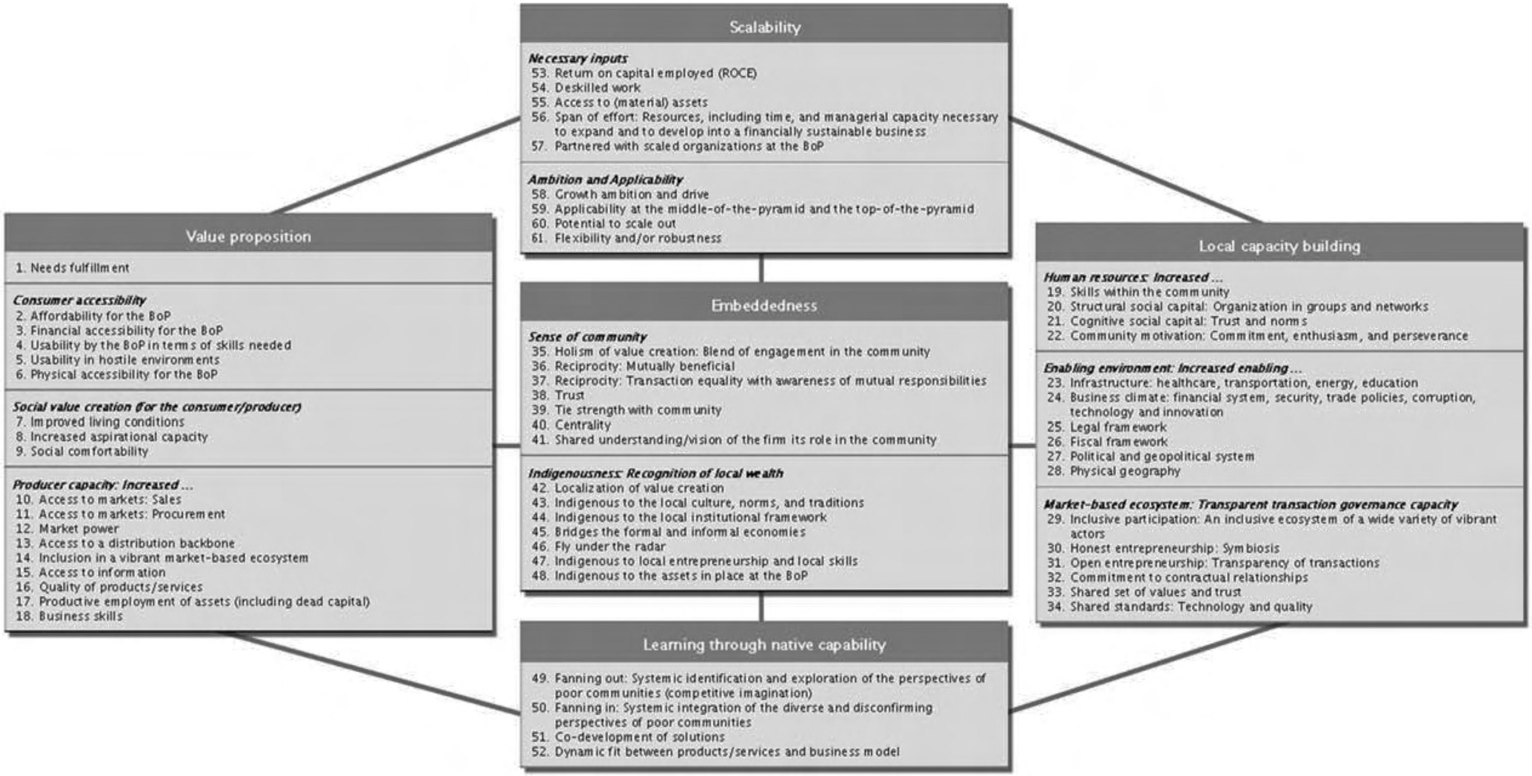

Figure 5.5: The BoP business model qualities

5.3.1 Value proposition

A firm's value proposition consists of the sum total of benefits and costs that result from engaging in business with that firm. It comprises the full experience with the firm. A business model is not viable in the long-term if stakeholders do not value the firm's value proposition sufficiently. This does not only include customers but also employees, distributors, and suppliers (Viswanathan et al., 2008). We focus here on the value proposition to the BoP as consumer and to the BoP as producer, thereby capturing both sides of economic activity and both roles in which the BoP can be integrated into a firm's business model (cf. Karnani, 2007a). In practice, the two are often blended together: e.g., the capacity to consume depends on production, and firms can also sell to producers, who may use these products and services to enhance their productivity.

Value proposition: Consumer accessibility. Sen (1999) approaches development and poverty as the freedoms that people enjoy. For someone to be free entails that person having certain opportunities and choices. In fact, the opportunities that BoP consumers miss are effective and efficient access to products and services or, in other words, they lack the capacity to consume (Prahalad, 2005). The price, necessary skills, distorted power relationships, and a lack of distribution coverage in poor areas may all inhibit dignified accessibility and choice. In fact, Hammond et al. (2007: 5) demonstrate the existence of a poverty penalty: "[m]any in the BoP, and perhaps most, pay higher prices for basic goods and services than do wealthier consumers—either in cash or in the effort they must expend to obtain them—and they often receive lower quality as well". For example, water in Dharavi, a low-income community in India, costs 37 times the price it costs in Warden Road, a higher-income community nearby (Prahalad & Hammond, 2002). Inefficient local monopolies, inadequate access, poor distribution, and strong traditional middlemen all contribute to this poverty penalty, resulting in significant unmet needs (Prahalad, 2005). Improving access to products and services for low-income people and reducing the poverty penalty contributes significantly to business success at the BoP.

Value proposition: Social contribution. In Chapter 4 we demonstrated that at the BoP social value creation can augment firms' financial performance. Social needs are particularly pressing at the BoP because of the low standard of living (cf. Banerjee & Duflo, 2007; Hammond et al., 2007). Therefore, people at the BoP typically choose value propositions with a large social component over value propositions that contribute less to their standard of living (Chambers, 1997; Hart & Milstein, 2003; Sen, 1999). Moreover, value propositions with a social component can increase the productivity of people at the BoP (e.g., by improving people's health and abilities or people's sense of purpose and motivation). This is something from which firms also can benefit (e.g., from increased demand or increased labor productivity). Furthermore, people at the BoP often organize in social networks (Narayan et al., 2000a), making it important for firms to adhere to the required social behavior. People at the BoP are often wary of those outside their circle, such as the private sector (Banerjee & Duflo, 2007), and failing to comply with social expectations would only exacerbate this distrust, which would negatively affect a firm's financial performance. Similarly, potential partners at the BoP, such as NGO's and local community groups have a strong social orientation and may demand equal orientation from the private sector as well (Chambers, 1997; London & Hart, 2004).

Banerjee and Duflo (2007) and Karnani (2007a,b) show that people at the BoP do not always choose to spend their money in a way that contributes most to their standard of living. They may, for example, chose to spend it on alcohol and tobacco or they may be unwilling "to commit themselves psychologically to a project of making more money" possibly because "at some level this avoidance is emotionally wise: thinking about the economic problems of life must make it harder to avoid confronting the sheer inadequacy of the standard of living faced by the extremely poor" (Banerjee & Duflo, 2007: 165). Behavior like this may also be explainable from other business model qualities. For example, even though a value proposition may make a significant social contribution it may not be culturally embedded, it may be financially inaccessible or people at the BoP may distrust the firm.

Value proposition: Producer capacity contribution. The International Labour Organization (ILO, 2005: 23) argues, "creating decent employment opportunities is the best way to take people out of poverty" and particularly labor productivity increases people's "level of income but also ensures social security, good working conditions and a voice at work". Karnani (2007a) consequently pleads for BoP literature to place more emphasis on the role of the poor as producers, who like BoP consumers also need more opportunities, like improved market access and greater productivity. The capacity to consume also benefits from an increased producer capacity. Increased production capacity may lead to more choice for consumers and a higher purchasing power within the community. Again, value propositions with a social component are preferable as they can, for example, augment people's productivity.

Prahalad (2006a) suggests six potential ways that firms can contribute to the capacity to produce at the BoP. There must be (1) access to markets: fair prices, (2) access to national and global markets, (3) access to information, (4) access to an infrastructural backbone of logistics and distribution, (5) help to improve quality, and (6) ability to enforce contracts. The two overall themes seem to be increased market efficiency and greater added value creation by the poor.

Value proposition
1. Needs fulfillment
Consumer accessibility
2. Affordability for the BoP
3. Financial accessibility for the BoP
4. Usability by the BoP in terms of skills needed
5. Usability in hostile environments
6. Physical accessibility for the BoP
Social value creation (for the consumer/producer)
7. Improved living conditions
8. Increased aspirational capacity
9. Social comfortability
Producer capacity: Increased …
10. Access to markets: Sales
11. Access to markets: Procurement
12. Market power
13. Access to a distribution backbone
14. Inclusion in a vibrant market- based ecosystem
15. Access to information
16. Quality of products/services
17. Productive employment of assets (including dead capital)
18. Business skills

1. Needs fulfillment

The extent to which a value proposition truly fits and satisfies the *real* needs of the people at the BoP determines whether there is a market for it. Such needs include products and services that alleviate poverty like those that prevent unnecessary expenditure, save time while that time can be spend productively, create employment opportunities, and smooth income and expenditure. But people's needs are not limited to these kinds of needs. For example, entertainment, like festivals, can play an important role in the lives of low-income people (Banerjee & Duflo, 2007). Similarly, these needs include people's aspirations, and businesses can contribute to their achievement. Valuable employment opportunities are a key need on the production side of the BoP (ILO, 2005).

An indication of the real needs of low-income groups may be found in their current expenditure pattern, which Hammond et al. (2007) have estimated for those living below a purchasing power parity of US$3.000 a year (they comment that expenditure on ICT probably has doubled by 2007).

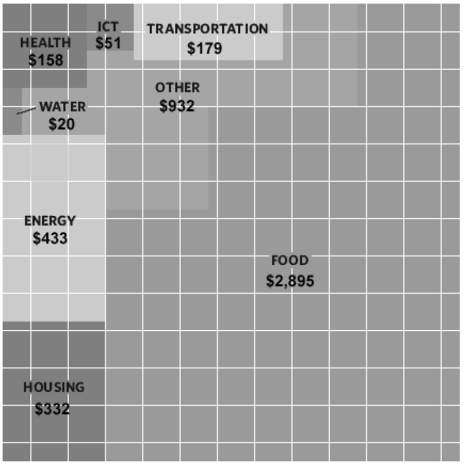

Figure 5.6: Estimated BoP market size by sector in billion of US$ (total market size: 5 trillion US$). Source: Hammond et al. (2007: 29)

Low-income people have little to spend and it is thus not surprising that they go to great lengths to take all alternatives, benefits, and costs into consideration. For example, "products that conserve floor space and don't require a continuous supply of power and water are greatly appreciated" as many at the BoP "live in spaces that are no bigger than a couple of hundred square feet" (Aguiar, Bhalla, Jain, Pikman, & Subramanian, 2007: 2). In response, Aguiar et al. (2007: 2) write that "[m]arketers and retailers who provide extensive information on a product's benefits and take the time to answer the questions of prospective customers will have a clear advantage in serving this segment." Furthermore, Prahalad (2005, 2006b) argues that although the price and costs have to be much lower to serve low-income people, the quality of products and services needs to remain world-class, i.e., within the context of the BoP.

It may be difficult to determine whether certain needs are real or the result of clever marketing. Karnani (2007a: 97) argues that "[t]he poor are vulnerable by virtue of lack of education (often they are illiterate), lack of information, and economic, cultural, and social deprivations". "[I]f for some reason, the poor consumer is deceived by marketing or is poorly informed, the BoP initiative might even reduce his welfare" (Karnani, 2007a: 97). Nonetheless, the idea is that businesses that are not targeted at the real needs of the BoP will not endure in the long-term (cf. Karnani, 2007b).

2. Affordability for the BoP

The affordability of a value proposition depends on its costs, the purchasing power of the consumer, and how consumption of the value proposition affects the consumer's purchasing power. The latter refers to potential gains in disposable income from consumption; e.g., if consumption prevents unnecessary expenditures on health care. Costs include not only the price of the product or service but also travel costs, necessary time investments, costs made in order to learn how to use the product/service, after-sales costs, necessary additional investments like on complementary products/services, all made in order to make optimal use of the new product or service.

New cost structures are generally necessary to reduce the cost of a product or service in order to make it affordable for the BoP. Prahalad (2005: 25) suggests that "quantum jumps in price performance are required to cater to BoP markets" as are cost structures that are much lower than those at the top-of-the-pyramid. Making a product or service available to the BoP on an "as needed" basis can also attain affordability. For example, a firm may facilitate purchases of small quantities or sell temporary access to a product/service rather than the product/service itself, so as to reduce the percentage of disposable household income that the product/service costs. Also, a firm may facilitate purchases that are financed by a group of people rather than by an individual, i.e., "demand pooling" (Mahajan, Pratini De Moraes, & Wind, 2000).

3. Financial accessibility for the BoP

Even though someone at the BoP may consider the expenditure of a certain percentage of disposable household income on a particular product or service affordable, this does not always mean that the value proposition is financially accessible. The person still has to be able to finance the purchase. For example, even though costs may be relatively low and even if a value proposition generates more additional income than it costs, the value proposition may, in an absolute amount, still be too expensive. Furthermore, variability in income over time is high amongst low-income people (Banerjee & Duflo, 2007). Therefore, while a person might be able to spend a certain percentage of his or her income on a value proposition, he or she might not have access to these financial resources at all times. Hence, it is necessary that the offering match people's cash flows (Anderson & Markides, 2007).

Financial accessibility thus does not only depend on a person's available financial resources, but also on a firm's assistance to low-income people in dealing with the costs of the value proposition. One way firms can facilitate financial access is with credit schemes such as micro credit. Hence, while affordability refers to the ability to spend a certain percentage of household income on a value proposition (assuming one is able to obtain the necessary financial resources), financial accessibility refers to the ability to actually finance and pay for the investment.

4. Usability by the BoP in terms of skills needed

Usability here refers to whether people at the BoP are able to make use of a value proposition easily, effectively, and efficiently. The poor generally have a low level of education and illiteracy is common at the BoP. This should be reflected in the skill-level necessary for the firms' value propositions. It is therefore vital that a firm understands the capabilities of the sector of the BoP it is targeting. Prahalad (2005), for example, gives the example of a bank that uses ATMs that can be operated on basis of figures instead of text so that illiterate people can use them. To facilitate usability, firms may educate low-income people on the proper use of the value proposition and co-develop solutions together with low-income people. Mahajan et al. (2000) and Letelier et al. (2003) stress the importance of educating the BoP on "how to be customers" demonstrating that usability of the value proposition goes beyond that of the product or service. For example, a money-back guarantee if a customer is unsatisfied may not work well for a firm as third parties may repackage a product and return the empty bottle, or people may search the trash for empty bottles to return.

5. Usability in hostile environments

The ability to use a value proposition in the hostile environment that often exists at the BoP is another aspect of usability. This hostile environment often comprises "noise, dust, unsanitary conditions, and abuse that products must endure" (Prahalad, 2005: 26) but "products must also be developed to accommodate the low quality of the infrastructure, such as electricity (e.g., wide fluctuations in voltage, blackouts, and brownouts) and water (e.g., particulate, bacterial, and viral pollution)" (Prahalad, 2005: 27). Moreover, the full business model—i.e., not only the product or service—must be able to deal with all these eventualities. For example, a firm's distribution system might have to be able to function in an environment with raids, product counterfeiting, poor roads, blackouts, or constrained communication channels. The BoP is characterized by a lack of basic infrastructure—particularly roads, transport, and water—(Narayan et al., 2000a), poorly developed distribution systems, and scarcely available communication channels and market data (Arnold & Quelch, 1998). A firm might, therefore, have to provide its own infrastructure (Mahajan et al., 2000).

6. Physical accessibility for the BoP

The poor cannot afford to travel long distances and be unproductive for days at a time. Therefore, a value proposition can only be readily available and accessible to the poor, if it is distributed to where they can get it. This can give rise to a number of problems given the lack of basic infrastructure and underdeveloped state of formal distribution systems. Furthermore, for a value proposition to be readily accessible, availability alone is insufficient. The moments of exposure to the value proposition need to fit in with the daily lives of those living at the BoP. Prahalad (2005: 18) suggests that the work patterns of those at the BoP need to be taken into account. They might, for example, do their shopping after 7:00 pm. Similarly, it may be necessary to deliver certain products to people's homes. The necessary intensity of the distribution system depends on the level of competition and the product type. Low-income people plan their consumption of many product types far less structurally than higher-income people, thereby spending their money on the basis of the needs of the moment. These products and services require an intense distribution strategy. However, the development of this distribution infrastructure could drive up costs substantially.

A firm's distribution approach will generally differ in rural and urban areas, given the obvious differences between isolated rural villages and the large, densely populated cities where the poor often live in slums. One example of a strategy some firms use to build their distribution infrastructure is microfranchising and employing the poor as independent distributors. Firms may also facilitate a prospective customer's travel, they may use IT to remotely transact with customers, or they can visit potential customers instead of having them come to the firm.

7. Improved living conditions

"Poor people live in discomfort, in unhygienic, dangerous, dirty, badly serviced, and often polluted environments where they are vulnerable to many physical shocks, stresses and afflictions" (Narayan et al., 2000b: 34). They are "often described as tired, exhausted and worn out" (Narayan et al., 2000b: 34), which is largely due to the hard work necessary to survive while at the same time they lack food and access to good healthcare. In fact, "[m]ore than anything else, poor people dread serious illness within the family. Illness removes individuals from the labor pool and can push a household into poverty", particularly as affordable health care is lacking (Narayan et al., 2000a: 42). Furthermore, feelings of "powerlessness, voicelessness, dependency, shame, and humiliation" are strong (Narayan et al., 2000a: 7). A feeling of insecurity often makes people reluctant to make long-term investments, and economic uncertainty makes people afraid to make long-term commitments.

Hence, by definition, social conditions at the BoP are a central concern for people in their everyday life. The above conditions and effects demonstrate how impoverished living conditions restrain people's productivity, abilities, creativity, and self-esteem and thereby restrict their capacity to produce and consume. It is therefore not surprising that those living in poverty seek ways to improve their living conditions and seek value propositions that deliver social value. For example, firms offering a buffer against (economic) uncertainties—through, for example micro finance or micro insurance schemes, which enable people to anticipate cyclical or unexpected crises—help prevent the dramatic effects that uncertainty may have on everyday life. Value propositions that hold this social value were found to perform well financially at the BoP (see Chapter 4). However, aspirations for a better life may have become latent (Banerjee & Duflo, 2007). Therefore, firms may have to guide low-income people and their inspirations by demonstrating the benefits of the value proposition (cf. business model quality 8).

Living conditions (cf. footnote 1, page 2) are a multifaceted phenomenon and include primary life necessities (e.g., water, air, sanitation, utilities, nutrition, and clothing), infrastructure (e.g., housing, transportation, and communication), respect for human rights, public services (e.g., healthcare and education), a sense of safety and security (e.g., from criminal behavior or natural disasters), economic certainty (e.g., income stability and buffers against sudden expenses), and labor (employment opportunities and conditions). But they also include environmental aspects, such as the terrestrial ecosystem, air quality, and stresses on environmental resources. A firm's management of its impact on living conditions at the BoP would benefit from the incorporation of business model mechanisms that monitor its impact as broadly as possible. It should pay great attention to the aspects of its impact deemed relevant by the people at the BoP and not only on the aspects deemed relevant by the firm (Letelier et al., 2003). Moreover, firms should take steps to address their negative impact where found.

8. Increased aspirational capacity

Aspirational capacity refers to people's capacity to aspire and to imagine alternative options (Nussbaum, 2000; Sen, 1999) and is "conceived as a navigational capacity [to explore the future] which is nurtured by the possibility of real-world conjectures and refutations" (Appadurai, 2004: 69). It refers to how people conceive their possibilities in life, their happiness, energy levels, and personal efficacy (Grootaert, Narayan, Jones, & Woolcock, 2004). In fact, the crux of the matter is to get the people at the BoP "to imagine themselves working better, *not necessarily having more*. Appealing to members of the low-income segment as consumers triggers either price sensitivity or a sense that the offer is for someone else" [original emphasis] (Letelier et al., 2003: 90). Moreover, aspirational capacity is about people seeing who they can be and the role the firm can play in that life and in their development toward that life.

Yet, self-esteem is often low at the BoP (Banerjee & Duflo, 2007) and more often than not people are marginalized, especially women (Kabeer, 1999). Empowering people creates enthusiasm and the confidence to pro-actively create and take advantage of opportunities. Such empowerment entails a measure of control over institutions and processes directly affecting their wellbeing (World Bank, 2002). It refers to the ability of people to make purposeful choices and to the opportunities they have (Alsop, Bertelsen & Holland, 2005).

The institutions in place at the BoP can be a source of restraint on the aspirational capacity of those at the BoP (Appadurai, 2004). Firms may be able to stimulate aspirational capacity by introducing practices that bridge the tensions between modern and traditional values with regard to culture and institutions (cf. business model qualities 43 and 44). Firms could also try to develop freedoms and capabilities that would enable people "to lead the kind of lives they value; and have reason to value" (Sen, 1999: 18).

For a firm to manage the creation of aspirational value, it first needs to understand, from the perspective of people at the BoP, why low-income people would consider using its products or services and the meanings they attach to its value proposition, including feelings of accomplishment, pride, and pressure (Letelier et al., 2003). The firm can subsequently, integrate these aspirations throughout all aspects of its business model. Nevertheless, the aspirational values associated to a firm will only empower the BoP if they feel they can truly achieve these values and if they are able to oversee the necessary steps toward their achievement. To this end, laddered offerings of relatively small steps could be helpful. In addition, firms could decide to help the BoP realistically envision the road towards the achievement of the aspirational values and to continuously keep them informed on where they are on this road. For example, Letelier et al. (2003: 92) mention how a construction advisor of Cemex—a cement company—talks "customers through dreams and scenarios in order gradually to bring them back to a specific plan for a specific room, which looked much more achievable by virtue of the process".

9. Social comfortability

The BoP is strongly oriented towards culture, traditions, and religion. Societal hierarchy and the division of roles is often strongly embedded in people's daily lives. However, the progress brought about by a firm's value proposition may bring life changing opportunities. It can place people in new and unknown territory in which they exhibit social behavior that is not always understood by themselves or their communities. Therefore, regardless of whether the value proposition is sufficiently embedded in the existing social framework or not, it may still give rise to "fears about the future, a sense of isolation from neighbors, and an inability to talk about what is happening" (Letelier et al., 2003: 87). This progress can also lead to envy and suspicion as people may assume that "anyone who gets ahead has taken something that could have been shared" (Letelier et al., 2003: 84). Consequently, people can feel compelled to act in a way that does not make full use of a firm's value proposition.

Feelings of "loneliness, self-doubt, and fear" (Letelier et al., 2003: 93) need to be managed as these could convince the BoP to give up on a value proposition. To ease the stress and make the BoP feel socially comfortable with a proposition, Letelier et al. (2003) suggest firms organize support groups and make sure that accomplishments as well as slipups are recognized for what they are. This facilitates the development of appropriate new behavior, while people feel relatively comfortable while doing so. Small steps in laddered offerings can also be helpful.

10. Access to markets: Sales

"Most in the BoP lack good access to markets to sell their labor, handicrafts, or crops and have no choice but to sell to local employers or to middlemen who exploit them" and treat them disrespectfully (Hammond et al., 2007: 4-5). Barriers that hinder the BoP producers' access to markets and restrict their freedom to choose where to sell their produce, include fragmented and uncoordinated markets, insufficient access to market information, inability to cut loose from existing buyers, insufficient business skills, lack of compliance to international standards, lack of network linkages, inadequate infrastructure, and high costs of distribution (Danse & Vellema, 2006; Stiglitz & Charlton, 2005). The fact that some BoP producers are stuck in the informal economy can also inhibit their market access (de Soto, 2000). In fact, Stiglitz and Charlton (2005) demonstrate that in contrast to developed countries, the internal barriers in developing countries—such as the infrastructure, level of education, and lack of other forms of resources—are more important barriers to access to international markets than the artificial trade barriers of market protection.

Therefore, firms that enable BoP producers to access local or international markets more efficiently, effectively, or on basis of fairer conditions, have a valuable proposition. Firms may be able to contribute to this by training producers, organizing small producers into collectives with more market power, by functioning as middlemen with the necessary network linkages, by enabling BoP producers access to formal economies, and by generating pressure on governments for better trade agreements. Improved market access may contribute to better prices for BoP producers, larger sales volumes, and a better fit between the market that is serviced and the characteristics of BoP producers' products and services. Hence, better market access augments market efficiency and the productivity of BoP producers (Stiglitz & Charlton, 2005).

11. Access to markets: Procurement

As with sales markets, many BoP producers lack access to procurement markets. In fact, access to sales markets depends on access to the right inputs (Stiglitz & Charlton, 2005). Access to procurement markets does not only refer to access to raw materials but also to credit, human resources, production techniques, and technology. Improved access to these could contribute substantially to the BoP producers' quality, efficiency, growth opportunities, and so on. Not only is improved access to procurement markets a valuable proposition for BoP producers, the firm itself would benefit from higher-quality and/or more consistent delivery of its inputs if these producers are suppliers of the firm.

12. Market power

The self-employed poor usually operate on a small scale, with a low level of technology and low skilled production (Banerjee & Duflo, 2007; Narayan et al., 2000a). Market power lies firmly in the hands of local employers and middlemen (Hammond et al., 2007). This can lead to distorted relationships whereby the poor are exploited. This leads to diminished self-esteem and insecurity. Even if BoP producers have access beyond local markets, they may not have the market power to obtain a fair deal. Such is the result of factors including fragmentation of BoP producers, information asymmetries, low-quality produce and consequently little ability to distinguish oneself from other producers, lack of contract enforcement, BoP producers being stuck in the informal economy, and lack of negotiation skills (Viswanathan et al., 2007).

A more balanced relationship and power distribution, would lead to fairer prices and less degradation for the poor. To this end, firms could mobilize the poor in cooperatives, remove middlemen from the extended value chain, improve negotiation skills amongst BoP producers, and augment their ability to enforce contracts. Access to information is also an important facilitator of market power.

13. Access to a distribution backbone

The distribution backbone refers to the channels through which products and services are distributed to and from the BoP producer. An effective and efficient distribution backbone requires supply chain management; more specifically, it requires management of inventory, transportation, facilities, planning, and coordination throughout the supply chain. While market access and market power focus on the trade deal, access to a distribution backbone focuses on the physical layer, i.e., the actual delivery/distribution. Nonetheless, market access does depend on access to a distribution backbone (Stiglitz & Charlton, 2005).

Distribution remains a difficult task for BoP producers due to the poorly developed distribution systems, the undeveloped infrastructure, and the lack of available communication channels (Arnold & Quelch, 1998; Narayan et al., 2000a). Enabling access to a professional distribution backbone of logistics and distribution—combined with the trade deals of market access—would thus be a valuable proposition. As many BoP producers operate at a small scale, access to a professional distribution backbone could significantly enlarge the scale on which they operate and bring about untold benefits. To this end, a firm’s value proposition to BoP producers may, for example, include ICT as an enabler of planning and coordination, access to storage facilities, training in supply chain management, and means of transportation. The prosperity BoP producers would gain from this access may also generate externalities that benefit the firm.

14. Inclusion in a vibrant market-based ecosystem

Markets at the BoP often operate ineffectively and inefficiently due to market imperfections (Hoskisson et al., 2000; Viswanathan et al., 2007). Transaction costs are considerable and people are dependent on informal and subsistence livelihoods (Hammond et al., 2007). This results in a large informal sector with many small players (Schneider, 2006). Markets are small, fragmented, and diverse as a result of heterogeneity in consumers and producers—such as a strong, diverse orientation on culture, traditions, and religion (Letelier et al., 2003)—and in infrastructure, with large differences between the isolated rural areas and large, densely populated cities (Dawar & Chattopadhyay, 2002).

Organizing the fragmented BoP producers and other actors involved in value creation into a vibrant and symbiotic market-based ecosystem would facilitate market exchange and offer BoP producers greater transaction efficiency—i.e., accurate, timely completion of transactions, and against low costs—less market friction, market access, and risk management (Prahalad, 2005; cf. Khanna & Rivkin, 2001). It could provide mutual learning opportunities and generate incentives for collaboration if all participants benefited from the development of the collective of the ecosystem.

Therefore, a value proposition that would provide BoP producers with inclusion in an ecosystem of vibrant participants would be an attractive proposition indeed. The collective, including the firm, could benefit from its expansion with another BoP producer. Indeed, the collective as a whole could grow and build effective and efficient markets for mutual wealth creation. The development of this vibrant market-based ecosystem, and the aspects that such an ecosystem would entail, are discussed in more detail in paragraph 5.3.2 as part of local capacity building.

15. Access to information

Information poverty is "that situation in which individuals and communities, within a given context, do not have the requisite skills, abilities or material means to obtain efficient access to information, interpret it and apply it appropriately" (Britz, 2004: 194). Information poverty is an important problem for BoP producers. This is partly due to a digital divide. Information poverty also results from a lack of skills and abilities such as "a lack of knowledge regarding processes, for example, how to catch a fish", "a lack of knowledge about attributes … [such as] the ability to assess the quality of a potato", and a lack of "knowledge about knowledge … [meaning] the expertise or skill (or lack thereof) required to master the technology that provides access to information" (Britz, 2004: 195). The increasing privatization and protection of previously public information (e.g., biopiracy; Stiglitz & Charlton, 2005), has also contributed to information poverty. The resulting lack of access to information puts low-income people “at a disadvantage in their dealings with public agencies, NGOs, employers, traders and lenders, and contribute[s] to their feelings of powerlessness” (Narayan et al., 2000b: 237). It holds people in a poverty trap. Furthermore, it generates information asymmetries thereby creating market inefficiencies.

Enabling BoP producers to access quality information and to interpret and apply that information, facilitates better decision-making by BoP producers—such as when and where to buy or sell, the production techniques to use, where to recruit employees, which market trends to follow, and so on—and therefore enhances their quality and productivity. In fact, market power strongly depends on access to information. Reducing information asymmetry reduces vulnerability to profiteers and can contribute to the empowerment of low-income people. It gives them a voice and stimulates inclusion in decision-making. Also the ability to monitor other actors depends on access to information, which thus can facilitate the development of trust and improve transaction governance.

ICT is an important enabler of access to information, like Internet connectivity and mobile telephony. Prahalad (2005) illustrates how Internet connectivity allowed soybean farmers in India to predict prices based on soybean prices at the Chicago Board of Trade and enabled them to find a fair deal for their goods. Similarly, Prahalad mentions how fishermen use mobile telephones to find out where they can best sell their catch of the day and how a tire repair service uses a mobile telephone to operate as a local triple-A.

16. Quality of products/services

The quality of the products and services that are produced by people at the BoP may suffer from external shocks (e.g., weather conditions) and may not meet international standards, thereby reducing their market access. Value propositions that enable BoP producers to improve the quality of their offerings and ensure that they are acceptable to the world at large—or at least a larger part of the world—are thus valuable to them. They allow BoP producers to acquire better prices as well as expand their sales. Quality is also important for trade between developing countries (cf. Stiglitz & Charlton, 2005), as products and services of higher quality improve actors’ comparative advantage. It could also ensure higher quality inputs for firms, if the BoP producers are suppliers of the firm. The ways in which firms can advance BoP producers’ quality include access to better inputs, education—such as knowledge of production techniques—and innovation capacity to deal with continuously changing conditions and requirements.

17. Productive employment of assets (including dead capital)

While productivity is an important driver of income and economic development (ILO, 2005), BoP producers' productivity is generally low. The reasons for this include that they operate at a small scale, with a low level of technology, and low skilled production (Banerjee & Duflo, 2007). Firms contributing to the development of BoP producers' productivity have a valuable proposition and add to BoP producers' economic development (Karnani, 2007a). Training, access to productivity enhancing products, and scale development could contribute to these productivity enhancements and firms themselves might also benefit. Not only would they benefit from the value attached to these value propositions by BoP producers, but also from more productive employees (if the BoP producers are employees of the firms) and from externalities that economic development brings along.

One important cause of low productivity is the vast amount of dead capital at the BoP. De Soto (2000: 36) estimates that at least $9.3 trillion of real estate is held by the poor as what he calls "dead capital"—i.e., the legal rights to assets are not adequately registered so that people cannot capitalize on the full value of these assets. This prevents them from productive application of their assets. "[T]hese assets cannot readily be turned into capital, cannot be traded outside of narrow local circles where people know and trust each other, cannot be used as collateral for a loan, and cannot be used as a share against an investment" (de Soto, 2000: 6). Hence, although the poor may be asset-rich they remain capital-poor. Yet it is by turning assets into capital that assets become disproportionately more valuable. Therefore, turning dead capital into productive capital could significantly contribute to the productivity and purchasing power of the BoP.

One of the reasons for the existence of so much dead capital is that the poor often have no or insufficient access to the formal property system, i.e., they lack access to the processes that record their ownership over assets and enable them to turn their assets into capital thereby making their assets much more productive (de Soto, 2000). Firms could help the poor obtain access to the formal property system—for which it might be necessary to provide them with a "legal identity" (Prahalad, 2005: 107)—but they could also choose to recognize the value of the assets within the informal economy and enable the poor to productively employ these assets without integrating them into the formal property system. Although the former, if possible, might be the most valuable to the BoP, the latter may be preferable if the formal property system in a country is barely developed. For example, many micro finance institutes allow low-income people to use their assets as collateral even if they only hold the informal property rights over them. This requires systems that objectively determine the value of assets, record their ownership, record the rights of owners, make them comparable to others assets, monitor possession and quality of assets over time, facilitate transactions, and enable enforcement of agreements. Other banks may assist low-income people in obtaining the formal property rights over the assets they own.

18. Business skills

Although BoP producers may have the business skills to operate in the informal economy, they may miss the necessary business skills to be able to operate successfully in the formal market system. Those who do operate in the formal economy usually also stand to benefit from receiving training in business skills, such as those they lack due to insufficient formal education. These could be skills in writing a business plan, bookkeeping, and human resources management all of which are important business skills, which they might not have sufficiently developed. Developing these skills enables BoP producers to do more business within the formal market system in which there are fewer growth constraints compared to the informal economy in which businesses cannot become too large in case they attract too much attention. It would also allow producers to break away from local middlemen and give them access to doing business with more professional organizations. As BoP producers' businesses grow, their economies of scale and productivity too would benefit.

5.3.2 Local capacity building

While the business model qualities with regard to the value proposition refer to the firm's relationship with individuals at the BoP, local capacity building refers to the extent to which the firm contributes to the local capacity of communities. Chaskis, Brown, Venkatesh, and Vidal (2001: 7) define local capacity at the community level as the "interaction of human capital, organizational resources, and social capital existing within a given community that can be leveraged to solve collective problems and improve and maintain the well-being of that community". Local capacity building involves innovation, the generation of economic activity, the improvement of the quality of life, the enhancement of recognition of individual worth, and the development of respect for the natural environment (Murphy & Thomas, 2003).

Capacity building thus refers to a community's increased collective ability to solve problems and generate and identify opportunities. The UNDP (1998) distinguishes between two dimensions of local capacity: the human resources and the enabling environment. Both are usually poorly developed at the BoP (e.g., Mahajan et al., 2000). At the BoP, local capacity is usually characterized by a low level of education, tired, exhausted people with feelings of distrust and anxiety, fear of the future, insecure environments characterized by crime and violence, weak institutional infrastructures and legal frameworks, governments that neglect the needs of the poor, and a lack of basic infrastructure (see Table 5.2). Moreover, assumptions that hold for markets at the top-of-the-pyramid often do not hold at the BoP, such as assumptions of absence of information asymmetries, the absence of market frictions, and well-developed and upheld legal codes (Viswanathan et al., 2007). These market imperfections make it impossible for markets to operate efficiently and effectively. Therefore, in addition to the two dimensions of local capacity distinguished by the UNDP, we would like to add a third. Building upon Prahalad (2005), we add the development of a market-based ecosystem as a dimension of local capacity building. This development depends on the collective transaction capacity of the ecosystem of actors involved in doing business with the firm.

All three dimensions of local capacity are thus usually poorly developed at the BoP. Yet if the entrepreneurial drive and motivation that exist at the BoP (Chambers, 1997; Prahalad, 2005) could be better utilized and made more productive by building local capacity, it would spur local vibrancy, create an atmosphere of industriousness, and augment people's ability to engage in economic activities. In fact, because the capacity of the BoP to engage in business with the firm depends on the local capacity, the firm is essentially forced to incorporate local capacity building mechanisms in its business model. The economic activity that this would generate will produce positive development cycles or externalities from which the firm can also benefit. Local capacity building is thus mutually beneficial to the firm and the community.

Local capacity building
Human resources: Increased …
19. Skills within the community
20. Structural social capital: Organization in groups and networks
21. Cognitive social capital: Trust and norms
22. Community motivation: Commitment, enthusiasm, and perseverance
Enabling environment: Increased enabling …
23. Infrastructure: healthcare, transportation, energy, education
24. Business climate: financial system, security, trade policies, corruption, technology and innovation
25. Legal framework
26. Fiscal framework
27. Political and geopolitical system
28. Physical geography
Market- based ecosystem: Transparent transaction governance capacity
29. Inclusive participation: An inclusive ecosystem of a wide variety of vibrant actors
30. Honest entrepreneurship: Symbiosis
31. Open entrepreneurship: Transparency of transactions
32. Commitment to contractual relationships
33. Shared set of values and trust
34. Shared standards: Technology and quality

19. Skills within the community

Skill development is an important element of local capacity building. It refers to skills in the broadest sense of the term, such as organization skills, production techniques, product development, leadership skills, management of natural resources, etc. Firms can contribute to skill development by offering training, providing people with access to information, and by organizing self-help groups. The skills that a firm decides to develop should fit the needs within the community. The development of a well-targeted set of skills that reinforce each other, and that can be utilized by a firm's business model might prove most effective.

20. Structural social capital: Organization in groups and networks (participation, democratic functioning, and outside connections)

People at the BoP usually organize in social networks, which provide a buffer for economic uncertainties and as such can have a dramatic effect on everyday life (De Souza Briggs, 1998; Knack & Keefer, 1997; Narayan & Pritchett, 2000). Membership in social networks provides support and "in-kind assistance, emotional guidance, and information" (Viswanathan et al., 2007: 5). They are an important source "from which one can derive jobs, credit, and financial assistance" (Narayan et al., 2000a: 44). Kinship networks are vital for daily survival as well as for crisis management. Moreover, social capital links together social groups with complementary resources and enables a community to act as a cohesive group. It allows a community to share information, engage in dialogue and discussion, undertake collective action and decision-making, and it reduces opportunistic behavior (Collier, 1998; Grootaert & van Bastelaer, 2002; Grootaert et al., 2004). Hence, it facilitates coordination and cooperation for mutual benefit thereby reducing transaction costs (Putnam, 1995).

Social capital comprises "the norms and networks that enable people [and organizations] to act collectively" (Woolcock & Narayan, 2000: 226). It has a structural and a cognitive dimension (e.g., Grootaert & van Bastelaer, 2002). The structural dimension of social capital, which is discussed here, refers to how people and organizations from a community are organized—i.e., the structure of social organizations and informal networks that exist within a community. The effectiveness of these associations and networks depends on four dimensions: the density of membership, the diversity of membership, the extent of connections to other groups, and the extent of democratic functioning (Grootaert et al., 2004).

The first two dimensions, the density and diversity of membership, refer to participation or social inclusion of community members. They include ties to people who are similar in terms of their demographic characteristics ("bonding" social capital) and ties to people who do not share many of these characteristics ("bridging" social capital), both of which are valuable (Narayan, 2002a). The third dimension of social capital, i.e., the extent of connections to other groups, refers to the fact that structural social capital expands when organized at the regional, national, and even global level. This further enhances access to information, access to sources of capital, and access to people and entities in positions of power outside of the community ("linking" social capital) such as representatives of public (police, political parties) and private (banks) institutions (Woolcock, 1999; Woolcock & Narayan, 2000). The fourth dimension of social capital, i.e., democratic functioning, builds upon the argument that "organizations that follow a democratic pattern of decision-making are … more effective than others" (Grootaert et al., 2004: 11).

Firms can add to a community's social capital by managing the extent to which groups and networks function in the four dimensions of structural social capital. For example, facilitating community support groups or setting up cooperatives might stimulate community participation and thereby enhance bonding and bridging social capital. Similarly, providing a community with access to the Internet may create new outside connections. In fact, Viswanathan et al. (2008: 226) argue that although the BoP might show "strong links between people within the community, … [these] may actually hinder the ability of group members to trust and work effectively with members of other groups. … [F]irms can bring to bear their significant skills of coordination and communication to facilitate relationships between disparate communities."

21. Cognitive social capital: Trust and norms

The benefits described above are benefits of social capital and thus require cognitive social capital in addition to structural social capital. Cognitive social capital consists of trust and norms that enable people and organizations to act collectively (Woolcock & Narayan, 2000). Indeed, coordination and cooperation for mutual benefit requires mutual trust, solidarity, and norms of cooperation and reciprocity. In this matter, we can distinguish between different types of trust within a community: trust within established groups, trust towards strangers, and trust towards institutions of governance (Grootaert et al., 2004). Norms that influence the capacity of social interaction and cooperation take many forms, including corruption, red tape, ethnic and religious divisions, gender issues, and other attitudes. While there is a strong social orientation at the BoP and personal relationships are usually more important than formal contracts (e.g., de Soto, 2000; London & Hart, 2004), there is also a feeling of distrust for actors beyond the small circle of the extended family, such as the private sector (Banerjee & Duflo, 2007). Social capital in relationship to institutions of governance is also low, as these institutions often appear to neglect the needs of the poor (Narayan et al., 2000a,b). Alleviating this distrust and developing norms of cooperation, both of which require repeated social interaction, therefore pose a great challenge to the private sector.

Cognitive social capital can negatively affect development as well—for example, if group norms prevent girls from going to school. For, what is regarded as "social capital in one context can be *un*social capital in another" (Krishna & Shrader, 1999: 6). Narayan et al. (2000a: 45) offer an interesting illustration of how expected reciprocity may prevent people from escaping poverty: "If one decides to have few children in order to limit the drain on the family's resources, one ends up caring for the children of relatives, and so while on the one hand the extended family is a powerful safety net, on the other it discourages behavior that in the long run would reduce poverty such as productive investments or limited family size." Hence, excess social capital may cause "exclusion of outsiders, excess claims on group members, restrictions on individual freedoms and downward leveling norms" (Portes, 1998: 15).

22. Community motivation: Commitment, enthusiasm, and perseverance

Commitment, enthusiasm, and perseverance within a community are important for a community's dynamism and liveliness. They stimulate creativity, innovation, change, and productivity (Narayan, 2002b). Such motivation and empowerment requires those at the BoP to believe that their endeavors make a difference and may contribute to their standard of living. Yet, "poor people are often described as tired, exhausted and worn out" (Narayan et al., 2000b: 34). Banerjee and Duflo (2007: 165) sense "a reluctance of poor people to commit themselves psychologically to a project of making more money". On the other hand, others observe an entrepreneurial drive at the BoP (Chambers, 1997; Prahalad, 2005). Viswanathan et al. (2007) assert that there is a driving motivation at the BoP if it concerns the betterment of their lives. Moreover, people at the BoP show perseverance and an ability to adapt in response to the setbacks they endure (Banerjee & Duflo, 2007). Local capacity may thus benefit if firms set a context in which people inspire each other and ignite the intrinsic motivation that all human beings possess. For example, firms may organize people to share inspirational success stories (Letelier et al., 2003)—e.g., around their product/service—as these stories would demonstrate the opportunities and possibilities they too could benefit from. Firms may also concentrate on boosting self-esteem amongst the BoP community, which is necessary for motivation. Furthermore, motivation depends, of course, on the other dimensions of local capacity and developing these dimensions may therefore also contribute to the motivation within communities.

Local capacity building: Enabling environment. Development is complex and therefore difficult, if not impossible, for governments to centrally engineer (Ellerman, 2005). Nevertheless, governments play a vital role in a region's development; not only by delivering public goods and services but also by setting the context in which development and business take place. For example, Rao, Pearce, and Xin (2005: 114) found that "[n]onfacilitative governments contributed to managers' distrust in their business associates in ways that could not be completely overcome by building close, open-ended, long-term reciprocal relationships".

The external environment[22] can either enable or impede the deployment and development of local capacity (North, 1990; Rao et al., 2005). It is enabling if it supports a community's efforts to solve and prevent collective problems and improve or maintain the wellbeing of that community. An enabling environment has been found to enlarge the entrepreneurial activity within communities and people's skill levels (Franks, 1999). An impeding environment, on the other hand, is one of the main causes of the large informal sector at the BoP as the administrative/legal environment here is not conducive to the establishment of formal businesses (de Soto, 2000) thereby forcing businesses into extralegality. This prevents businesses from growing, which would increase their productivity and present employment opportunities (Karnani, 2007a). Other examples of an impeding effect of the external environment are the high changeability of market conditions, especially in transition economies, weak institutional infrastructures and legal frameworks, fraud and corruption, a lack of basic infrastructure, and rude and humiliating interactions of poor people with governments (cf. Table 5.2).

The business model qualities in this section refer to the effect a business model has on whether the environment enables or impedes communities (and the firm itself). Developing a more enabling environment would build a more thriving community and would contribute to the development of a win-win situation for the firm and the communities (Weiser, Kahane, Rochlin, & Landis, 2006). For example, a firm may build roads, hospitals, and schools and use its influence on governments to realize change. It could also incorporate mechanisms in its business model that would help low-income people cope with the environment as it is. These strategies are likely to be more effective and efficient if they form an intrinsic part of the firm's business model and have a strong link to the firm's activities. Certainly there are limitations to what the private sector can invest in the enabling environment. At a certain point, investments can only be justified as philanthropic investments instead of as an intrinsic part of the firm's business model. In fact, development of an enabling environment is an area in which collaboration with social institutional players, if possible, may be beneficial.

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[22] The external environment includes the administrative/legal, technological, political, economic, socio-cultural, and stakeholder environment (Lusthaus, Anderson, & Murphy, 1995). Within each of these environments it is possible to distinguish between three dimensions: the rules/policy, the attitude, and the capabilities within each dimension of the environment (Lusthaus et al., 1995). For example, for the administrative/legal environment it respectively concerns the legal framework, the attitude toward enforcement, and the ability to develop and enforce laws and policies.

23. Infrastructure: healthcare, transportation, energy, education

Basic infrastructure is often poorly developed at the BoP (Arnold & Quelch, 1998; Doh & Ramamurti, 2003; Narayan et al., 2000a). This includes items such as roads and transportation, education, healthcare, electricity, and services such as water, sewage, garbage collection, and communication services. Important determinants of their quality are the ability of governments to collect taxes, the level of corruption, and government debts. However, firms may also need to contribute to infrastructural developments. Not only may their business model depend on the existence of a certain infrastructural backbone but contributing to infrastructural developments may also build trust, embeddedness, and native capability. Employee retention may benefit as employees become proud of their employer, healthcare may contribute to productivity, education may contribute to skill development, access to energy may generate entrepreneurial opportunities, and so on.

24. Business climate: financial system, security, trade policies, corruption, technology and innovation

The business climate, discussed in more detail in Chapter 2 (third hypothesis), includes factors such as trade policies, security and crime, the financial system, labor regulations, the level of technology/innovation, corruption, attitude towards the private sector, and environmental standards for firms. International trade policies and agreements are often detrimental to the poor (Stiglitz & Charlton, 2005). The poor often live in insecure environments characterized by crime and violence (Narayan et al., 2000a,b), they may lack access to affordable loans and other financial services, and fraud and corruption may be rife (Robertson & Watson, 2004; Rodriguez et al., 2005; Uhlenbruck et al., 2006). Firms can contribute to a more enabling business climate by, for example, facilitating access to financial services in collaboration with NGOs, organizing a sector to enforce better trade policies, and facilitating access to technologies to stimulate innovation. In addition, firms can help the poor deal with the business climate by providing security in dangerous areas or helping them get out of protectionist regulations.

25. Legal framework

The legal framework includes factors such as business licensing and operating permits, property rights, law enforcement, implementation of laws on the ground, attitude toward enforcement, and conflict resolution. Government regulations in many developing countries require a foreign firm to take on a local partner (Blodgett, 1991). The legal framework at the BoP is characterized by red tape and a lack of well-developed property rights (de Soto, 2000). It is often underdeveloped and nontransparent (Globerman & Shapiro, 2003; North, 1990; Wright et al., 2005). Constantly changing regulations can impede businesses as can a faulty regulatory discipline (Arnold & Quelch, 1998). Moreover, the legal framework is concerned with how "bureaucracies [or any other government system] deal with citizens" (Prahalad, 2005: 84). "Poor people seek institutions that are 'effective,' 'trustworthy,' 'uniting,' 'dependable,' 'respectful,' 'courteous,' 'truthful,' 'listening,' 'not corrupt' and 'not corrupting'" (http://go.worldbank.org/NTVCW2JYW0). But instead, "[p]oor people report that their interactions with state representatives are marred by rudeness, humiliation, harassment, and stonewalling" (Narayan et al., 2000a: 8).

Again, although it may be difficult for the private sector to change the legal framework, they may be able to help low-income people deal with the legal framework as it is. Grameen bank, for example, stimulates and helps the poor obtain the property rights to their houses. To this end, it may be necessary to help them obtain a "legal identity" (Prahalad, 2005) as well as help them fill in forms. Assistance like this forms an intrinsic part of Grameen bank's business model. It is strongly linked with the bank's core activities, for once the property rights are obtained, they can be regarded assets which can be used as collateral for the products and services that Grameen bank offers.

26. Fiscal framework

The fiscal framework includes the way in which a government spends its money, its tax rates, tax administration, public sector revenues and expenditures, macroeconomic stability (inflation, exchange rate), government debts, and how it enforces fiscal policy. The fiscal policy in developing countries, particularly in transition economies, may change regularly, which results in uncertainty (Hoskisson et al., 2000; Jenkins & Thomas, 2002). Furthermore, governments may not always spend money in the best interest of the poor (Viswanathan et al., 2007). Although the fiscal framework may prove difficult for firms to influence, firms can help the poor deal with the fiscal framework and the demands it places upon them. The interests of the BoP are more likely to be taken into account if firms can organize those living in poverty and give them a voice. However, firms can also have a negative effect and create a more impeding fiscal environment—e.g., if they negotiate such low tax tariffs that it undermines a government's ability to provide basic services.

27. Political and geopolitical system

The political system covers the government's stability (national and local), the type of government (democratic, authoritarian), the political influence of the electorate, the government's attitude towards the private sector, the political ability to organize civil society, the electorate's political influence, knowledge within the electorate on how to exercise this influence, and the degree of transparency of political processes (Lusthaus et al., 1995; Pearce, 2001; Rao et al., 2005). As we acknowledged previously, "[p]oor people seek institutions that are 'effective,' 'trustworthy,' 'uniting,' 'dependable,' 'respectful,' 'courteous,' 'truthful,' 'listening,' 'not corrupt' and 'not corrupting'" (http://go.worldbank.org/NTVCW2JYW0). Yet, "[p]oor people report that their interactions with state representatives are marred by rudeness, humiliation, harassment, and stonewalling" (Narayan et al., 2000a: 8). Moreover, fraud and corruption by government officials, particularly toward the more vulnerable, is prevalent in many developing countries (Robertson & Watson, 2004; Rodriguez et al., 2005; Uhlenbruck et al., 2006). Governments regularly neglect the needs of the poor and transparency of political processes is often missing.

Geopolitics involves a country's or region's security and economic relations with the rest of the world. This includes international trade agreements, which are often detrimental to the poor (Stiglitz & Charlton, 2005), cross-border security threats, international sanctions, and participation in international groups (Sachs, 2005a: 84). Similar to the fiscal framework, it is usually difficult for the private sector to change the political or geopolitical system, but by organizing the poor and giving them a voice, firms may contribute to the development of the political and geopolitical system in favor of the poor.

28. Physical geography

The geography and topography of a country can be a valuable asset or, conversely, a severe impediment to business. Sachs (2005a) suggests that geographic factors play a significant role in development. Amongst these factors are: (1) transport conditions (the proximity of population to ports, international trade routes, navigable waterways), (2) population density (costs of connectivity to power, telecoms, roads; arable land per capita; environmental impacts of population-land ratios), (3) agronomic conditions (temperature, precipitation, solar insulation; length and reliability of growing season; soils, topography, suitability for irrigation; interannual climate variability like El Niño; long-term trends in climate patterns), and (4) disease ecology (human diseases; plant diseases and pests; animal diseases). Vulnerability to natural disasters could also be added to this list. Again, firms may be able to build local capacity by enabling low-income people to deal with geographic limitations and by stimulating the utilization of geographic benefits by low-income people.

Local capacity building: Market-based ecosystem. Wealth is created within ecosystems of actors that "interact to create markets and develop appropriate products and services and deliver value" (Prahalad, 2005: 64; Hagel, 2002; Iansiti & Levien, 2004). However, market imperfections at the BoP reduce the effectiveness and efficiency of markets, including that of business ecosystems. Assumptions that hold at the top-of-the-pyramid may not hold at the BoP. These assumptions include the absence of information asymmetries, the absence of market frictions, whether government expenditure of tax receipt is in the best interest of the their constituents, and well-developed and upheld legal codes (Hoskisson et al., 2000; Viswanathan et al., 2007). Furthermore, transaction costs are considerable and the vast informal economy consists of small and fragmented markets (Hammond et al., 2007; Schneider, 2006).

Firms can address these market failures and excessive transaction costs, by building the local capacity of a market-based ecosystem (Prahalad, 2005; cf. Khanna & Rivkin, 2001). "Such an ecosystem consists of a variety of institutions coexisting and complementing each other. … [It] allows private sector and social actors, often with different traditions and motivations, and of different sizes and areas of influence, to act together and create wealth in a symbiotic relationship" (Prahalad, 2005: 65). The market-based ecosystem moves the discussion from a focus on one type of actor to an ecosystem with a variety of complementary actors, each with their own role to play in the ecosystem. These actors include SMEs, MNEs, extralegal and legal enterprises, micro enterprises, cooperatives, NGOs, and governments. Since existing ecosystems generally are underdeveloped at the BoP and operate ineffectively and inefficiently, the firm could choose to function as a network orchestrator and build and develop the ecosystem (cf. Brown & Hagel, 2006; Hagel, 2002; Magretta, 1998; business model quality 40).

Transparent transaction governance capacity is vital for a market-based ecosystem, or as Hart (2005: 208) writes, firms need to build a climate in which there is "respect for agreements, transaction transparency, and mutual trust". Transaction governance capacity refers to the ability of an ecosystem of actors to co-create and execute their transactions in an effective and efficient manner. This requires "quality standards, mutual obligations, commitment to contractual relationships, and a shared set of values" (Prahalad, 2005: 68). In contrast to community capacity, transaction governance capacity is a capacity of the ecosystem of actors engaged in business and value creation with each other.

Transparent transaction governance capacity can be built at the BoP through training, education, appropriate governance and incentive structures, and by building self-governance amongst actors (Prahalad, 2005; Sánchez, Ricart, & Rodríguez, 2006). It is something the firm builds with all actors involved. To this end, the benefits to all the actors within the ecosystem need to exceed the costs of taking part in the ecosystem and adhering to its values. To ensure that the capacity goes beyond transactions in which the firm itself is directly involved, the firm may have to encourage self-governance amongst other actors in the ecosystem rather than rely on exogenous regulation within the business ecosystem. A firm may facilitate such a collective commitment through training and educating the other actors on matters such as each other's obligations, how to enforce and monitor these obligations, how to remove asymmetries, and how to negotiate and close contracts. Furthermore, getting actors organized in networks in which they can share knowledge and experiences, such as in umbrella organizations or self-help groups, can contribute to the development of transaction governance capacity. Most importantly, all actors need to understand the rationale of the market-based ecosystem (Prahalad, 2005).

The idea of a market-based ecosystem and the business model qualities below build upon Prahalad (2005). The extent of self-governance forms part of each business model quality as each business model quality refers to the extent to which that quality exists throughout the ecosystem and not only within relationships in which the firm is directly involved.

29. Inclusive participation: An inclusive ecosystem of a wide variety of vibrant actors

The market-based ecosystem benefits if a wide variety of vibrant actors participate. Economic development requires an inclusive ecosystem of symbiotic actors who all play their role as well as possible (Prahalad, 2005). Together these actors create value and each contributes something different, thereby reinforcing each other and generating positive development cycles and win-win opportunities. They all actively participate and bring something unique to the table. Hence, a holistic set of actors creates wealth and produces a thriving community. The list of actors can include extralegal organizations, micro enterprises, small and medium enterprises, NGOs, large local firms, cooperatives, MNCs, household producers, volunteer organizations, social entrepreneurs, and social institutional players. Yet, at the BoP, ecosystems are typically skewed towards extralegal and small actors.

Traditional partners, such as large companies and national governments, do not always have the necessary knowledge about, or embeddedness in, the BoP (Hart, 2005). Therefore, value creation at the BoP may require the private sector to consider not only traditional partners but also and especially non-traditional ones, such as civil society, community groups, and local entrepreneurs (London & Hart, 2004). Chesbrough et al. (2006), for example, stress the importance of public-private partnerships. They recommend that the private sector works with NGOs to build profitable markets at the BoP, especially during the initial phase of establishing a business model. In fact, Uvin, Jain, and Brown (2000: 1418) suggest that "the extent to which an NGO successfully scales up can be judged not only in terms of its size, but also in terms of the number of spin-offs it created [and] the number of projects that have been taken over by other actors". NGOs may have the patience as well as the local trust, knowledge, and networks that the private sector may find difficult to build. Chesbrough et al. (2006: 59) suggest that NGOs are "well suited for the long lead time work that is necessary to lay the foundation for later business success" and "activities such as recruiting, training, and coaching personnel for functions such as distribution are best left to them". Brugmann and Prahalad (2007) and WBCSD (2004) argue for partnering across sectors as well.

30. Honest entrepreneurship: Symbiosis

The social collateral necessary for cooperation and for sharing knowledge and experiences calls for symbiotic or reciprocal relationships between actors in the market-based ecosystem. This involves fairness and equality in transactions and relationships that build win-win situations. Moreover, symbiosis implies that middlemen do not have the power to exploit other actors and that one actor does not treat another disrespectfully, as often happens at the BoP (Hammond et al., 2007). Furthermore, inequality in contracts and mutual obligations are to be prevented as much as possible, and asymmetries in information, choice, market power, and social standing are to be removed. Complementarity between actors facilitates symbiosis and augments the desire to act together to create wealth from which all actors benefit. This complementarity and desire to collaborate are not unusual given that the learning necessary for business success (cf. paragraph 5.3.4) and economic development at the BoP will more often than not require a participatory approach in which all actors need to be willing to share information (Chambers, 1997; London & Hart, 2004). The symbiosis that results encourages all actors to take ownership of their role in the ecosystem. Business model qualities 36 and 37 elaborate further on the notion of symbiosis.

31. Open entrepreneurship: Transparency of transactions

Transaction transparency means that all actors have access to readily available information about transaction content, transaction structure, and transaction governance (Zott & Amit, 2004). Transactional information may be hard to come by at the BoP and may only be available at high costs, making it difficult to monitor transactions and creating a strong reliance on personal relationships in contrast to formal contracts (de Soto, 2000; Hammond et al., 2007; Karnani, 2007a; Narayan et al., 2000b). A market-based ecosystem benefits from transparency in transactions as it enables actors to conduct transactions with each other in a more efficient and effective manner, thereby reducing the cost of capital as well as increasing access to capital (Williamson, 1985, 1991). Moreover, transaction transparency enables transactions to take place beyond the people one knows well and it can prevent corrupt and unfair behavior, while also building trust (Rao et al., 2005). Furthermore, it facilitates coordination, collaboration as well as competition, consistency, and allocation of resources.

32. Commitment to contractual relationships

Transaction costs also depend on whether actors respect contracts, whether explicit or implicit. Effective contracts at the BoP are often social in nature rather than legal (de Soto, 2000; Hart, 2005; London & Hart, 2004). This is the result of limited transaction transparency, a strong social orientation (Chambers, 1997), and weak legal frameworks

(Globerman & Shapiro, 2003; North, 1990; Wright et al., 2005). Intellectual property protection is also usually minimal (Arnold & Quelch, 1998). Although this means that firms will have to develop the ability to understand, appreciate, and leverage the social infrastructure at the BoP (Chambers, 1997; London & Hart, 2004; cf. paragraph 5.3.3), a thriving market-based ecosystem requires all actors to acknowledge their mutual responsibilities, no matter whether these are informal social contracts or formal legal contracts. Actors must be aware that respecting social as well as legal contracts will give them access to markets that offer "skills and opportunities that are often denied by the informal sector" (Prahalad, 2005: 69). It requires awareness of the fact that violating agreements—whether informal or formal—will harm their own development as well as that of the ecosystem. "Respect for the contract must transcend people you see every day. A contract with another legal entity, large or small, seen or unseen, is critical" (Prahalad, 2005: 75). Business model quality 37 elaborates further on mutual responsibilities.

33. Shared set of values and trust

The different actors involved in the market-based ecosystem may differ greatly in their traditions, motivations, and perspectives. For example, NGOs, MNCs, and local self-help groups are likely to differ widely. Moreover, the BoP is characterized by significant diversity in culture, traditions, and religion, and people's orientation to these dimensions is usually very strong (Letelier et al., 2003). To guide such heterogeneity within a market-based ecosystem and generate a sense of membership, it is necessary to establish a common ground of shared values that guides actors' choices and actions (Kanter, 2008). These values refer to what people respect and aspire to. Honest and open entrepreneurship and commitment to contractual relationships are only a part of these values. Actors in the market-based ecosystem can act collectively and share knowledge from the common ground of shared values and mutual trust (cf. business model quality 21). It offers an anchor of stability, producing consistency in choices and actions (Kanter, 2008). Moreover, it includes a shared vision, which empowers and generates the collective power and excitement that makes change possible.

34. Shared standards: Technology and quality

For a market-based ecosystem to operate as a collective with consistent performance, it is necessary to create a shared platform of technological and quality standards, such as regarding interfaces, outputs, and management systems. "Shared standards reduce specificity and … search, monitoring, and enforcement costs, thus allowing firms to efficiently exchange with multiple partners" (Schilling & Steensma, 2001: 1155). In fact, shared standards allow actors to "plug into each other" making it easier to co-create wealth and to capitalize on synergy between actors (Palmisano, 2006). This may also include setting standards that enable the ecosystem to access markets that were previously inaccessible because of certain quality requirements. For a firm to set standards in the ecosystem, ownership of the ecosystem is not as important as access and influence (Brown & Hagel, 2006; Hagel, 2002; Prahalad, 2005). Setting standards may require the introduction of new technologies and may call on the firm to provide other actors with expertise.

5.3.3 Embeddedness

Economic actions do not take place in a barren social context. Instead they take place within on-going patterns of social relations and institutional conditions such as culture, tradition, and religion (Granovetter, 1985). Embeddedness is "the extent to which a company's strategy [or business model] reflects or is influenced by its social and institutional connections" (Miller, 1996a: 283). It is having a business model that is indigenous and builds upon the local customs and conditions instead of enforcing a way of doing business that goes against existing customs and circumstances. An embedded business model lifts psychological and cultural barriers and develops a local presence within people's everyday life. Only then will people accept the firm and truly perceive it as an option to engage in business with the firm. Therefore, the extent to which a firm is truly present as an indigenous actor—instead of perceived as an external "alien" actor that the BoP has nothing to do with—determines whether or not the BoP can identify itself in the firm and feels comfortable doing business with the firm. A firm's business model can reflect or be influenced by its social and institutional connections in two ways, which we will discuss below as the two facets of embeddedness.

One strategy to build embeddedness is to hire representatives from the local community, who could also be made (co-)owners of the local business. Ideally, these people have strong local connections and are therefore "more likely to be empathetic to, and share the values of, local culture" (Gibb & Adhikary, 2000: 139). This enables them to adjust the business model to the local conditions, so that the firm does not have to make these adjustments and can operate with a similar business model under different conditions. One of the challenges in this process is to find the right local entrepreneurs and educate them. Another strategy to fuel embeddedness is to work with non-traditional partners that are already embedded (Hart, 2005: 203). Furthermore, learning through native capability (see paragraph 5.3.4) is an important driver of embeddedness.

First facet of embeddedness: Sense of community. The first of two facets of embeddedness is the sense of community built into a firm's business model. Sense of community acknowledges a firm's larger role in the communities in which it operates.

Sarason (1974: 157) defines it as "the perception of similarity to others, an acknowledged interdependence with others, a willingness to maintain this interdependence by giving to or doing for others what one expects from them, and the feeling that one is part of a larger dependable and stable structure". Hence, sense of community recognizes a firm's interwoveness in all aspects of community life making the firm responsible for value creation within all of its roles in society, be it social, intellectual, spiritual, environmental, emotional, or economic value creation.[23] As a result, the lens through which firms look at their activities is not one that has profit as the ultimate goal. Instead, firms with a sense of community take a holistic approach to value creation, creating a tight blend of social, intellectual, spiritual, environmental, emotional, and economic value (cf. Landrum & Gardner, 2005).[24]

"Offering them [the BoP] consumer goods alone may satisfy their desires but not their ambitions" (Letelier et al., 2003: 78). People at the BoP aspire to a better life, to something that goes beyond merely economic development and includes an interwoven blend of social, intellectual, spiritual, environmental, and emotional development. Indeed, in addition to their drive for prosperity and development, people need to feel the "sense of belonging, community, connection to nature, and larger purpose that comes from family, tribe, tradition, religion, and other nonmaterial sources" (Hart, 2005: 191 on basis of Friedman, 2000). These non-economic values that root and anchor people and from which people take their identity and dignity, gives them "the warmth of family, the joy of individuality, the intimacy of personal rituals, the depth of private relationships, as well as the confidence and security to reach out and encounter others", and should be balanced, preferably in a mutually reinforcing manner, with economic value creation (Friedman, 2000: 27).

Most other actors at the BoP are unlikely to create these social, intellectual, spiritual, environmental, and emotional values, which thus creates a great opportunity for firms. Moreover, other social, intellectual, spiritual, environmental, and emotional values are already highly interwoven at the BoP (London & Hart, 2004; Narayan & Pritchett, 2000; Narayan et al., 2000a; Sen, 1999; Udry, 1990). Therefore, in order to engage in successful economic actions with the BoP and become an accepted actor with a presence in the community entails to engage in value creation at the other, non-economic, levels. The BoP does not see value creation at these different levels as isolated spheres of activity. For

[23] Personal conversation with Tex Gunning, CEO of Vedior, November 2007.

[24] A sense of community is more than corporate citizenship alone, which focuses on a firm's impact on society and the environment. More so than corporate citizenship, a sense of community refers to a firm taking part at all levels that count in the daily life at the BoP through a dialogue with the people at the BoP. Sense of community puts more emphasis on two-way interaction than corporate citizenship does and it integrates value creation at all levels into a firm's core business.

example, Viswanathan et al. (2007) discuss how economic exchanges and social relationships are blurred. A “shared sense of facing adversity” creates a “1-1 environment with strong word of mouth effects” and a central role for fairness and trust, making “individuals respond to fairness in relationships at a human level rather than at the level of abstract notions of competition, reflecting their immediate needs and life circumstances” (Viswanathan et al., 2007: 5). Not only the BoP does not see them as isolated spheres of activity, but potential partners at the BoP—such as NGOs and local community groups—have a strong social orientation as well (Chambers, 1997; London & Hart, 2004). Potential partners may therefore expect comparable dedication from the private sector. Firms that play their role at all levels and consciously integrate social, intellectual, spiritual, environmental, and emotional value creation in a firm’s business model in a reinforcing manner, are the ones embedded in community life.

For firms to be able to play their roles at all of these levels, requires them to be in touch with the social, intellectual, spiritual, environmental, and emotional concerns that exist within communities. This stresses the importance of continuous learning through native capability and strong ties with BoP communities (cf. paragraph 5.3.4). The other way around, learning at the BoP requires the embeddedness of value creation around non-economic issues that are of importance to BoP communities. Firms, at the BoP, that are involved in community issues that go beyond mere economic transactions develop “a new sense of intimacy with and embeddedness in the world so that they might better understand the real problems that need to be solved for the majority of humanity” (Hart, 2005: 188-189).

In addition to the benefits received from creating a sense of community with respect to learning, a firm may benefit from having more motivated, inspired, skilled, and productive employees, something we suggested in Chapter 4. For example, if one family member is ill, the whole family suffers. This makes the health of people beyond those directly involved in the firm also the business of the firm. Consequently, what we see at the BoP is that firms create local capacity exactly for this purpose. For example, firms found hospitals and schools close to them so that whole families, particularly of employees, have access to them. Another way that firms benefit is from the trust and commitment that it builds through the human face of the firm. This may also encourage local leaders to safeguard the firm’s projects as well as protect its employees from crime and violence (Beshouri, 2006).

Second facet of embeddedness: Indigenousness. The second facet of embeddedness is a firm’s indigenousness. That is, “new business models must not be disruptive to the cultures and lifestyles of local people” (Hart, 2005: 186) but instead build upon “the wealth of indigenous resources and alternatives” (Hart, 2005: 168) and be “part of the local landscape rather than an alien force that imposes its will from the outside" (Hart, 2005: 208). The traditional top-down approach used by developed countries, in which they project their views on developing countries, has proven to fail (Stiglitz, 2002). Instead, the BoP requires firms to recognize and leverage the strengths within the characteristics of the BoP context by building upon local resources and conditions (London & Hart, 2004). These firms look upon the characteristics of the BoP context as something positive instead of a liability. In sum, indigenousness refers to the extent to which a firm's business model is appropriate from a local perspective—i.e., takes advantage of local conditions, institutions, and resources.

We distinguish between five levels of indigenousness[25]. First, "alien" business models that are disruptive to the local landscape—e.g., a business model that goes against the local culture or against local social relationships. Second, "neutral" business models that are neither disruptive to local conditions nor are local conditions reflected in the business model. They are not connected to local conditions without being disruptive to them. Third, business models that are locally appropriate. That is, they recognize the local conditions and these are reflected in the business model. However, they do not leverage the characteristics in the BoP. Characteristics are absorbed in the business model but do not yet drive success. Fourth, business models that leverage the strengths within the characteristics of the BoP context. Such business models build on the positive in the BoP—such as strengths within culture, institutional frameworks, resources, and abilities—and see beyond what is negative or missing. To truly leverage the strengths within local conditions, it is insufficient to only build upon the positive in local conditions. For this to be meaningful in respect of a firm's business model, the way a business model builds upon the positive should also boost its value drivers—i.e., the value sources like creativity, efficiency, employee loyalty, and network externalities around which a business model is built (see Chapter 3). For example, Letelier et al. (2003) mention a company that built on local conditions by locating its sales activities in local stores. However, this created such a sense of familiarity for customers that it stimulated a focus on bargains, thereby conflicting with the firm's value drivers and thus not producing success.

Fifth and finally, in addition to building on the positive in the BoP, business models can also generate and develop progress in the local landscape (Letelier et al., 2003). Such a business model innovatively bridges the tensions between modern and traditional values, enabling the BoP to enjoy modern values without giving up on their traditional values. Low-income groups may desire and admire certain values but feel uncomfortable to apply because the ways to attain them are seen to be in conflict with traditional values.

[25] A more fine-grained analysis would be to make an analysis at each of these five levels because one aspect of a firm's business model may build on the local conditions while another aspect may be considered "alien".

Moreover, the BoP may be unable to imagine how a firm and its proposition fit in their lives and may be unable to "make sense of themselves as consumers, though they realize that consuming is modern" (Letelier et al., 2003: 80). These are gaps in practical cognition rather than gaps in needs (Letelier, Spinosa, & Calder, 2000). For example, low-income groups may desire the benefits of saving money but saving may be considered arrogant as fate or God determines all outcomes. Helping the BoP attain the values they aspire to but are unable to imagine how to attain—without being disruptive to traditional values but instead building upon them to bridge tensions—offers opportunities to improve the living conditions for the BoP. These business models are not disruptive to the traditional aspects that the BoP values. Instead, they build on existing, valued practices at the BoP to fit modern values into the daily life at the BoP. In doing so, these business models enable the BoP to access desired modern values while simultaneously strengthening traditional values. To this end, business models help low-income groups make sense of how they as users of the firm's "bridging practices", fit in their local communities as well as in the "modern" world (Letelier et al., 2003: 80). For example, Cemex uses the traditional practice of "tanda" to enable low-income groups access to the modern benefits of saving. Each of the ten tanda members contributes 100 pesos each week and, based on fate, one member gets the full deposit. Each member "wins" the amount of 1.000 pesos once. Tanda mixes "the fate of the lottery, the celebratory tanda meetings, and the sense of potential shame at missing a payment, with an appreciation of organizing (in forming and joining a lottery), a plan-like commitment to pay, and joining others with a good attitude for getting ahead" (Letelier et al., 2003: 85). Another example from Letelier et al. (2003) is the Grameen Bank, which makes the poor owners of the bank thereby enabling them to pay interest without going outside the bounds of Islamic law.

Benefits of embeddedness.[26] Relevant literature contains many references to the benefits of embeddedness. It facilitates communication and learning, and more specifically the

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[26] Embeddedness encloses several forms (Dacin, Ventresca, & Beal, 1999), including the quality of relationships (relational embeddedness: Granovetter, 1973, 1985;Tsai & Ghoshal, 1998; Uzzi, 1997), the network structure (structural embeddedness: Burt, 1992; Gulati & Gargiulo, 1999; Simsek, Lubatkin, & Floyd, 2003), the position in a network of relationships (positional embeddedness: Gulati & Gargiulo, 1999; Tsai, 2001), similarities of mental models and world views (cognitive embeddedness: Nahapiet & Ghoshal, 1998; Tsai & Ghoshal, 1998), and the reflection of culture (cultural embeddedness: Dacin, 1997; Goodstein, 1994; Phillips, 1994), and institutions and politics (political/institutional embeddedness: Baum & Oliver, 1991, 1992; Campbell & Lindberg, 1990; Haveman & Rao, 1997) in a firm's business model. The business model qualities below build upon these forms of embeddedness. Sense of community captures aspects of particularly relational embeddedness (e.g., tie strength, trust, and reciprocity), positional embeddedness (network centrality), and cognitive embeddedness (e.g., shared understanding). Cultural embeddedness and political/institutional embeddedness, on the other hand, particularly fit the notion of indigenousness.

exchange, creation, and absorption of fine-grained information and knowledge (Mair & Martí, 2006; Tsai & Ghoshal, 1998; Uzzi, 1996). Embeddedness enables the intense interaction necessary to co-develop new business models and new products and services with the BoP and other partners (cf. Levinthal & March, 1993). We will discuss this in more detail in paragraph 5.3.4. Furthermore, it facilitates a collective understanding between firms and BoP communities, thus generating acceptance, legitimacy, and trust within these communities (Gavetti & Levinthal, 2000; Tsai & Ghoshal, 1998), and creating a competitive advantage that cannot easily be copied. Without trust, support, and recognition of legitimacy it becomes much more difficult to partner with the BoP and thus to find the right value propositions and business models. Embeddedness also makes it easier for firms to obtain resources and to benefit from risk-sharing, reduced transaction costs, and access to new markets (Granovetter, 1995; Sánchez et al., 2006; Uzzi, 1996).

Sánchez et al. (2006: 19) suggest that the desired level of embeddedness depends on three conditions. "[A] firm has a bigger incentive to build embedded ties and partnerships under three conditions: an under-developed market-oriented system; the high psychic distance of a firm in regard to low-income markets; and the degree of personalized co-creation experiences offered by the firm". A firm can also become too embedded within a community (Uzzi, 1997). Overembeddedness can cause a firm to rely too heavily on information from well-known actors and not search for links with new actors (Hansen, 1999). Furthermore, the communities in which a firm is embedded may expect a firm to meet excessive claims once it is successful; an example of the free-riding problem (Portes, 1998). For example, communities may restrict a firm with demands to conform to certain norms within their community. They may even demand that these demands are also met when the firm does business in other communities even though these communities may differ in their norms (Portes, 1998). In addition, managing and maintaining local relationships takes a lot of time and may be resource intensive, costs which at a certain point may not be earned back (Stevenson & Greenberg, 2000). Finally, Abrahamson and Fombrun (1994) mention cognitive lock-in as a potential problem or cost of embeddedness.

Embeddedness

Sense of community

35. Holism of value creation: Blend of engagement in the community
36. Reciprocity: Mutually beneficial
37. Reciprocity: Transaction equality with awareness of mutual responsibilities
38. Trust
39. Tie strength with community
40. Centrality
41. Shared understanding/vision of the firm's role in the community

Indigenousness: Recognition of local wealth

42. Localization of value creation
43. Indigenous to the local culture, norms, and traditions
44. Indigenous to the local institutional framework
45. Bridges the formal and informal economies
46. Fly under the radar
47. Indigenous to local entrepreneurship and local skills
48. Indigenous to the assets in place at the BoP

35. Holism of value creation: Blend of engagement in the community

The essence of a sense of community is that firms play their role at all levels of society and consciously integrate social, intellectual, spiritual, environmental, and emotional value creation in their business model in a reinforcing manner. Economic value creation cannot be seen independent from the value that a firm creates at other levels, for reasons already discussed above. Indeed, the social, intellectual, spiritual, environmental, emotional, and economic spheres of life are highly interwoven at the BoP (De Souza Briggs, 1998; London & Hart, 2004; Narayan & Pritchett, 2000; Narayan et al., 2000a; Sen, 1999; Udry, 1990) and potential partners at the BoP have a strong social orientation as well (Chambers, 1997; London & Hart, 2004). Consequently, firms play a role within all these spheres and the BoP perceives the values created within these spheres as integrated packages of value. For example, social value is key within economic transactions (Viswanathan et al., 2007)—people at the BoP ask themselves: what does this transaction do to my social status in the community, does it improve my living conditions, what is my social relationship to this firm, do I trust the firm and do I want to remain loyal to it? Another example is the spiritual and emotional value that firms at the BoP create for their employees as they work on poverty alleviation.

Firms can only play their role at all levels of society and address non-economic concerns within a community, if they are well informed about the issues that are relevant to that community. This shows how important it is for firms to truly integrate the non-economic spheres into their business model and make this value creation part of (daily) business. This would facilitate continuous exchange of information about the non-economic spheres of society thereby keeping firms informed about the concerns of communities and individual people (cf. paragraph 5.3.4). Hence, it is about truly *blending* social, intellectual, spiritual, environmental, emotional, and economic value creation. In fact, firms will want to create reinforcement between the different spheres in which it creates value and, more specifically, between the different ways it creates value within these different spheres. A firm may try to create one specific type of value by addressing a single concern isolated from all other concerns and types of values, but isolated endeavors like these may not do as well as a more holistic approach that combines addressing different concerns and different types of value creation in a reinforcing manner.

For example, some firms create and/or participate in community groups. These community groups give members a certain social status thus creating a value proposition with an economic as well as social component. Moreover, these community groups provide a channel through which firms can create blended packages of social, intellectual, spiritual, environmental, emotional, and economic value creation. They keep firms informed about the concerns within a community.

36. Reciprocity: Mutually beneficial

The incentive structures upon which formal agreements are based are usually not well developed at the BoP. Thus, personal relationships and solidarity play a dominant role in exchanges at the BoP (Udry, 1990). They give protection, provide a source of valuable information, and allow access to other actors' assets (Rao et al., 2005). For example, people at the BoP often organize in social networks, which provide a buffer against economic uncertainties (De Souza Briggs, 1998; Knack & Keefer, 1997; Narayan & Pritchett, 2000; Narayan et al., 2000a). Also, since information is often neither freely available nor well accessible, one needs to know the right people to gain access to valuable information.

Society at the BoP, therefore, is grounded in personal relationships (de Soto 2000) and exchanges at the BoP are based on reciprocity rather than negotiation (cf. Rao et al., 2005). "In reciprocal exchange, acts are performed without knowing if and when the other will reciprocate in the future: "contributions to the exchange are separately performed and non-negotiated… exchange relations develop gradually—or fail to develop—as beneficial acts prompt reciprocal benefit" (Molm, Takahashi, & Peterson, 2000: 1399-1400). Alternatively, negotiated exchanges are agreements, often explicitly negotiated" (Rao et al., 2005: 107).

In order to be able to operate and become embedded in these societies, a firm, to some extent, needs to follow these behavioral norms. This involves building mutually beneficial relationships, as reciprocal relationships will otherwise not be effective.[27] Although a firm can build a market-based ecosystem in which agreements—which can still be informal—are honored, if actors feel that they do not benefit sufficiently from their participation in the ecosystem they can decide to step out without honoring the contracts they have agreed upon. Moreover, ensuring reciprocity based on a mutually beneficial relationship reflects the fact that both the BoP and the private sector bring something valuable to the table. Each actor possesses knowledge and resources that the other lacks. Firms may, for example, lack accurate information about potential customers and other types of market data (Arnold & Quelch, 1998; Grosh & Glewwe, 1995) while the BoP may miss certain skills and market access against fair prices. This mutual dependence also demonstrates the need for a participatory approach to developing businesses at the BoP (Chambers, 1997; London & Hart, 2004; cf. paragraph 5.3.4).

Reciprocity therefore requires relationships to be mutually beneficial and to reflect fairness in terms of the amount of value that each actor appropriates. That means that the firm's presence and the exchanges derived from that presence need to be mutually beneficial and reflect a fair distribution. "[A]ll parties must benefit in terms important to them" (Simanis et al., 2008: 48) and it "requires everybody who touches it to make money" (London & Hart, 2004: 363). Also, some actors have the ability to thwart the business. Therefore, attention should be given to the extent to which each actor is involved in a firm's business model. An actor may appropriate a fair amount of value given its involvement, yet the actor may still thwart the firm if it feels that he or she is not sufficiently involved in the business.

37. Reciprocity: Transaction equality with awareness of mutual responsibilities

In addition to mutually beneficial relationships, reciprocity involves a second dimension in the form of transaction equality. Transaction equality refers to relationships in which actors operate as equals (Letelier et al., 2003). While the first dimension examined reciprocity with regard to value appropriation (outcome), transaction equality refers to the extent to which reciprocity translates into a non-hierarchical relationship between the firm and particularly the BoP, but also with other actors involved (process). A relationship as equals, instead of a relationship based on patronage, signals to the BoP their position and the mutual responsibilities of the firm and the BoP. To this end, the BoP (consumers as

[27] To develop win-win relationships, Weiser et al. (2006: 204) propose five strategies:
"1. Mine and translate local market information.
2. Adapt business model to community realities.
3. Change internal incentives and challenge cultural assumptions.
4. Create partnerships and strategic alliances.
5. Improve the enabling environment."

well as producers) need to acknowledge that "they are making serious commitments to each other and to a company *as transactional equals* who freely act to bind themselves on terms they both understand" [original emphasis] (Letelier et al., 2003: 91).

"The tendency to slip into vague patron-client or other hierarchical relations, where the patron takes care of the client in return for loyalty is very strong" (Letelier et al., 2003: 91). Simple agreements with mutually binding terms as well as clearly communicated enforcement mechanisms during each phase of contact between a firm and the BoP facilitate the development of transaction equality. Furthermore, the feeling, awareness, and understanding of these responsibilities at each stage of the consumer/producer experience need to be ensured. To truly generate a sense of transaction equality among the BoP requires them to understand and imagine what they are committing to and what it is that they are aspiring to achieve. It is the responsibility of firms to draw an honest picture and not to fall back on misleading statements and promises. Failing to do so will "build distrust, resentment, and harmful word of mouth in low-income communities" (Letelier et al., 2003: 92).

Transaction equality creates responsibility and empowers, which is important given the low self-esteem at the BoP (Banerjee & Duflo, 2007). It stimulates the BoP to take ownership of the situation and their choices, thereby stimulating them to undertake initiative. In addition, reciprocity in general, fuels loyalty, cooperation, and trust (Putnam, Leonardi & Nanetti, 1993). Reciprocity is also important for building the legitimacy necessary to operate within communities.

38. Trust

Trust is generally low at the BoP (Banerjee & Duflo, 2007; Rao et al., 2005). Nevertheless, as incentive structures upon which formal agreements are based are usually not well developed at the BoP, trust becomes a particularly important governance mechanism (Uzzi, 1996). Indeed, trust is an important substitute for legal contracts (Granovetter, 1985), which are difficult to enforce at the BoP (de Soto, 2000). Hart (2005) therefore argues that trust is the "lingua franca" at the BoP. In fact, "once poor customers come to trust you, they are disinclined to leave because most have experienced only poor service, unscrupulous vendors, or blatant exploitation" (Hart, 2005: 207).

Trust reduces transaction costs and enables firms to build relationships that provide them with access to valuable information and assets (Rao et al., 2005; Sánchez et al., 2006; Uzzi, 1996). Similar to reciprocity, trust helps firms overcome the "liability of foreignness" (Peterson & Pedersen, 2002; Zaheer, 1995) and build the legitimacy that is needed to operate within communities. Moreover, trust and reciprocity shift "actors' motivations away from the narrow pursuit of immediate economic gains toward the enrichment of relationships" (Uzzi, 1996: 677). This thus facilitates co-development with local communities (Sánchez et al., 2006; cf. business model quality 51) as it enables the intensive interaction with the BoP, the openness of mind, and the willingness to take risks that are necessary for learning and collective problem solving (Larson, 1992; Misztal, 1996; Nahapiet & Ghoshal, 1998; Uzzi, 1996). Consequently, trust produces customer advocacy and loyalty that are difficult to copy. It may even take the form of pride, as the BoP may be proud to have the firm operating in their community. Furthermore, trust eases the stress—which might stem from uncertainty—that people at the BoP might experience from progress and modern values and it makes people comfortable doing business with the firm (Letelier et al., 2003; cf. business model quality 9).

Many of the other business model qualities contribute to the development of trust. Development of trust benefits from interactive engagement processes with the BoP that build as well as sustain trust (Letelier et al., 2003). To this end, firms can organize BoP consumers/producers in groups in which they can share experiences, support and receive acknowledgment from each other. Trust may also be built through partnerships with organizations that already enjoy trust at the BoP, such as NGOs and community groups. "The influence of these groups, and related word-of-mouth effects, is particularly important in a fragmented rural setting, relative to metropolitan areas where relatively higher levels of resources enable mobility and some degree of insulation from local influences" (Viswanathan et al., 2007).

39. Tie strength with community

A sense of community also involves strong ties between firm and community, again reflecting the importance of personal relationships at the BoP (Chambers, 1997; de Soto, 2000). The strength of a tie, or relationship, includes the amount of time spent on the relationship, the emotional intensity of the relationship, and the intimacy of the relationship (Granovetter, 1973).[28] Strong ties between a firm and the communities in which it operates are necessary to develop an understanding of people's needs and concerns (cf. business model quality 35). They provide learning opportunities and enable co-development with the BoP (cf. business model quality 51). Furthermore, strong ties enable the firm to educate and guide the BoP while the BoP experiences the firm's value propositions. They enable a firm to build trust and confidence with having the firm's value propositions in ones life. One example of how strong ties can be developed is through an interactive sales process—e.g., through loyalty programs or role-playing games with the BoP (Letelier et al., 2003). The development of strong ties entails the integration of intensive interaction processes with the community in a firm's *daily* business.

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[28] Granovetter (1973) also includes the level of reciprocity as part of the strength of a tie. We approach reciprocity as a separate business model quality because reciprocity is usually discussed in BoP literature separate from tie strength.

40. Centrality

A central position within the community and within the market-based ecosystem (cf. paragraph 5.3.2) further develops a firm's sense of community and embeddedness. Network centrality refers to an actor's 'importance' or 'visibility' (Faust, 1997), or more specifically "the extent to which the focal actor occupies a strategic position in the network by virtue of being involved in many significant ties" (Wasserman & Faust, 1994: 172). It has four aspects: the level of activity or the number of contacts the firm has, the extent to which the firm can "contact others through efficient (short) paths", the firm's "potential to mediate flows of resources or information between other actors", and the extent to which the firm has "ties to other actors that are themselves central" (Faust, 1997: 160).

Centrality within the community and business ecosystem creates the power and control that enable the firm to operate as an orchestrator (cf. Brown & Hagel, 2006; Magretta, 1998). It enables a firm to operate as the central actor that facilitates and develops the ecosystem (cf. paragraph 5.3.2). Because ecosystems may operate ineffectively and inefficiently at the BoP it may indeed be important for a firm to take the role of initiator, something which is not about ownership of the ecosystem but about access to and influence over other actors (Brown & Hagel, 2006; Hagel, 2002; Prahalad, 2005). However, being the orchestrator also produces responsibilities—it may for example generate expectations with regard to local capacity building.[29]

Centrality contributes to the establishment of a firm's legitimacy to operate in communities, as it facilitates trust building and increases a firm's visibility, prestige, and reputation[30] (Gulati, 1995). Centrality can thus lead to more support from low-income communities. In addition, learning (cf. paragraph 5.3.4) benefits from centrality (Tsai, 2001), as a result of improved access to information (Gulati & Gargiulo, 1999; Valente, 1995), resources (Gnyawali & Madhavan, 2001), markets, and technologies (Gulati, Nohria, & Zaheer, 2000). Furthermore, it gives a firm the influence to lock-out potential competitors. Nonetheless, centrality may also have negative consequences. In fact, each tie is a potential "leakage point" of information (Harrigan, 1986). Moreover, the firm is

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[29] Hagel (2002: 72) delineates the following critical functions for the orchestrator to perform:

- "Defining the requirements that companies must meet to participate in the network,
- Recruiting companies to participate,
- Setting standards for communication and coordination among companies and structuring an appropriate information architecture,
- Tailoring the process to the needs of particular products or customers by specifying who will participate and what their roles will be,
- Assuming ultimate responsibility for the final products of the process,
- Creating performance feedback mechanisms so participants can continually improve performance."

[30] Similarly, negative impacts of a firm will have a disproportional negative effect on the firm's reputation.

"highly dependent upon its network by virtue of being involved in a large number of ties" (Gnyawali & Madhavan, 2001: 436), and the costs for maintaining the relationships can become high (Stevenson & Greenberg, 2000).

Holistic involvement in a community (cf. business model quality 35) facilitates the development of a central position within the community. Also, being the initiator of the development of a market-based ecosystem and being the one connecting the different actors, allows a firm the opportunity to capture a central position in the network and design the ecosystem's business model, including flows of resources and information, around itself (Sánchez et al., 2006). An actor that assembles the outputs of other actors is in a natural position to take a central position in the market-based ecosystem.

41. Shared understanding/vision of the firm's role in the community

If a firm is to gain legitimacy, it is important that it manages expectations. This is even more vital at the BoP in which distrust is often high. This is directed at the private sector in particular probably because there is a long history of bad experiences. The expectations communities have about firms may differ considerably from what firms themselves regard as their responsibilities—e.g., with regard to non-economic value creation. This shows how important it is that a business model generates a shared understanding and a shared vision about the firm's role in the community. It includes where the firm's value proposition fits in people's daily lives, the nature of the relationship between the firm and the community, and what areas and concerns within the community the firm has a role to play in.

A common understanding of goals and aspirations builds a collective orientation, thereby generating a supportive climate that fuels enthusiasm and commitment from both sides (Tsai & Ghoshal, 1998). Also, because the firm is better understood, it gains in legitimacy. In fact, communities gain a better understanding of why a firm makes certain choices and knows that these choices serve joint goals. Furthermore, it facilitates communication (Tsai & Ghoshal, 1998) and group thinking (Walsh, 1995) thereby enabling trust building, learning, and transactions (Nahapiet & Ghoshal, 1998). Nevertheless, it should also be noted that too low a diversity in orientation or cognitions also reduces flexibility and creativity as explained in Chapter 3 (Abrahamson & Fombrun, 1994; Barr, Stimpert, & Huff, 1992).

Key enablers of a shared understanding and vision are a shared language, codes, values, and narratives (Nahapiet & Ghoshal, 1998). Continuous clear and open communication between the firm and the community is vital. Building a shared understanding and vision also requires a firm to be realistic in its statements and the expectations that it evokes (cf. business model quality 37). Letelier et al. (2003: 91) mention that "it is common practice for disreputable vendors to make statements such as "put your money here and watch it grow faster than you have ever seen before" or "build like this and you will have equity in no time"". Similarly, Karnani (2007b) criticizes the 'Fair & Lovely' whitening cream for airing controversial advertisements, while in fact the product efficacy has not been proven.

42. Localization of value creation

Localization of value creation means that at least part of the value created through a business model is created by actors from the local community who are given a certain level of autonomy to adjust the business model as they deem fit for the local context in which they operate. This contributes to the development of a contextualized, indigenous business model that optimally leverages the local conditions. In fact, utilizing local actors to develop indigenousness enables a firm to manage the vast heterogeneity at the BoP (cf. business model quality 61). Local actors adjust the business model to the local conditions and local needs. Hence, localization of those parts of value creation that call for adjustments to local conditions and needs, reduces the need for the firm to make these adjustments. Furthermore, local actors may have the trust and support of the community and access to knowledge, infrastructure, support systems, and other resources that the firm lacks (WBCSD, 2004). Indeed, the inclusion of community actors into a firm's business model is important as a "company (the principal) is in a weaker position than the community (the agent) when it comes to gaining local information, shaping people's views, and dealing with bad behavior by defaulters" (Beshouri, 2006: 61). Also, localization of value creation facilitates co-development with communities (Simanis et al., 2008; Hart, 2005; cf. business model quality 51).

Activities such as for example marketing, distribution, and content development, could be localized instead of centrally planned. Local people may be in a much better position to effectively and efficiently perform these activities. To localize value creation, firms may decide to source locally or employ local people in management positions. In this way the BoP becomes the provider as well the customer (Hammond et al., 2007: 31). Another way firms at the BoP localize value creation is through business models that rely on micro entrepreneurs and/or develop micro franchisees.

43. Indigenous to the local culture, norms, and traditions

Heterogeneity in culture, norms, and traditions is substantial throughout the BoP (Letelier et al., 2003). This includes "codes of manners, dress, language, religion, rituals, norms of behaviour, and systems of belief" (Jary & Jary, 1991: 101). Yet, it is unlikely that a business model will be adopted if goes against people's culture, religion, or other norms and traditions, as people's orientation on them is strong. Instead, it would be better if firms were to recognize the strengths within these local conditions and build upon existing cultural practices. For example, the use of comic books as part of a firm's marketing strategy might work well in some countries whereas theatre performances might be a more effective strategy in another. Business models that are driven by the local culture leverage a great wealth as economic activity and culture are deeply intermingled (cf. Viswanathan et al., 2007), and they provide opportunities for culturally defined products and services. Firms may even take advantage of the opportunity to advance the local culture through what Letelier et al. (2003) term cultural innovations. These are bridging practices, i.e., practices that bridge the conflict between modern values and traditional values by building upon traditional values. Consequently, cultural innovations change cultural habits and expectations. They enable the BoP to access modern values that they already desired but were unable to obtain without giving up their traditional values. To this end, they help the BoP "to make sense of themselves in both their local communities and the "modern" world" (Letelier et al., 2003: 80). The examples of Cemex and Grameen Bank on page 183 illustrate the idea of cultural innovations.

The strong social orientation at the BoP (Chambers, 1997; Viswanathan et al., 2007), including that of transactions, is one of the more generic expressions of culture and norms that provide firms with opportunities (London & Hart, 2004). The social orientation augments the importance of personal relationships. Consequently, commitment at the BoP is largely based on social, not legal, contracts (de Soto, 2000). One way to leverage this expression of culture is to build commitment to the firm on the basis of social contracts instead of having to rely on formal contracts, law enforcement, and property rights (de Soto, 2000; London & Hart, 2004)—as for example is frequently done by micro finance institutions. This may have far-reaching consequences for a firm's business model as the examples of Cemex and Grameen Bank illustrate. Cemex not only organizes customers into groups that monitor and support each other but also employs people like teachers and church leaders, who have large personal networks and are widely trusted, to promote and monitor their program (Beshouri, 2006). Other ways by which a firm may be able to leverage the social orientation is in its marketing and sales activities and by encouraging word of mouth and employee testimonials (Letelier et al., 2003). Mahajan et al. (2000) propose leveraging global family networks, i.e., to market products amongst relatives that live abroad—such as immigrants and expatriates—and build on the vast remittances market. They give the example of Japanese companies that advertised in India for products that were unavailable in India. Indian natives, consequently, contacted their relatives overseas to bring these products on their next visit.

To build a business model that is not only culturally accessible but also leverages and develops a local culture requires a deep understanding of the local culture, norms, and traditions. It requires trust from the BoP and an opportunity to educate them about the value proposition. As part of such education, choosing the right theme to describe the proposition—i.e., one that "articulate[s] the goal suitable to all the conflicting values" and unifies the customers of the value proposition as they are likely to have feelings of self-doubt and fear (cf. business model quality 9)—is of importance (Letelier et al., 2003: 88).

44. Indigenous to the local institutional framework

Institutions are the "humanly devised constraints that structure political, economic and social interaction" (North, 1990: 97). The institutional framework takes the form of governments, support groups, religious organizations, financial and other market institutions, educational institutions, family, healthcare, housing, public and community transport, and cultural and recreational organizations. Institutions at the BoP are generally developed differently and are of different importance to those at the top-of-the-pyramid. An example of this is that generally social institutions (Sharp, Agnitsch, Ryan, & Flora, 2002) are more important at the BoP (London & Hart, 2004), yet, regulatory institutions are weaker (Globerman & Shapiro, 2003; North, 1990) and informal institutions are stronger (de Soto, 2000). Firms, therefore, need to pay careful attention to the local institutional context.

London and Hart (2004) argue that firms at the BoP need to recognize the value of existing local institutions instead of viewing the environment in terms of the institutions that are missing. The local institutional framework may enclose a great source of value for firms to leverage. However, this requires a different mindset than one based on Western-style institutions. Indeed, relying on traditional institutions may work counterproductive because these are often not set up to act in the interest of the poor and frequently impose western perspectives of what is right and what works onto the BoP (Easterly, 2006; Stiglitz, 2002). Non-traditional institutional partners—such as nonprofit organizations, community groups, civil society groups, and actors from the informal economy—on the other hand, may have the local knowledge, embeddedness, infrastructure, and network that firms seek (e.g., Chesbrough et al., 2006).

Institutional entrepreneurship is an area of special interest to this business model quality. Institutional entrepreneurs are entrepreneurs who leverage existing institutions and resources ("bricolage", cf. Mair & Martí, 2008) to modify existing institutional structures or create new ones (DiMaggio, 1988; Fligstein, 1997; Seo & Creed, 2002). Thereby, they fill institutional voids of weak or absent institutions. Mair and Martí (2006: 40) argue that "social entrepreneurs' ability to change norms[31] (e.g., money cannot be loaned without collateral, much less to the poor) may turn out to be even more significant than the initial problems that they set out to address". Partnering can again be an important strategy that

[31] This example illustrates the interdependence between business model qualities 43 and 44: the institutional organizations, which business model quality 44 focuses upon, enclose norms, which business model quality 43 focuses upon.

can be used to become more indigenous with regard to the local institutional framework (Mair & Martí, 2008).

45. Bridges the formal and informal economies

The health of an economy is made up of the formal and informal economy, and includes producer cooperatives, communal enterprises, not-for-profit organizations, barter exchanges, self-provisioning, the love economy—which consists of work performed without pay for the family by the extended family—and even nature (Gibson-Graham, 2006; Hart, 2005; Henderson, 1999). Economic activity occurs within each of these spheres, and at the BoP it is spread differently than at the higher tiers of the pyramid. Instead of a capitalist market-based system with price setting through supply and demand, exchanges at the BoP are regularly based on reciprocity and redistribution. This emphasis on the informal economy is not without its disadvantages. These can include a lack of well-defined property rights, the considerable costs and complications necessary to move from the informal into the formal economy (de Soto, 2000), poor market access, small scale operations, less specialization and lower productivity (Banerjee & Duflo, 2007; Karnani, 2007a), and a poverty penalty in the form of price premiums and lower quality products and services for low-income groups (Hammond et al., 2007).

Nonetheless, exchanges outside the formal money economy are considerable. Schneider (2006) estimates the informal economy in developing countries at 39 percent of official GDP in the year 2002/2003 and 40 percent in transition economies. This percentage is probably much higher at the BoP in these countries. Narayan et al. (2000a: 143) write: “Recent surveys show that the informal sector comprises 50 percent of GDP in Latin America, 40–60 percent of GDP in Asia, and 75 percent of GDP in Africa”. Moreover, the informal economy encloses not only weaknesses buts also strengths, such as distribution access to the poor, an entrepreneurial drive and motivation (Chambers, 1997; Prahalad, 2005), hidden assets that may be made productive (de Soto, 2000), knowledge about the poor as a market, and institutions respected by low-income people while them may not observe institutions from the formal economy. Yet, in spite of the informal economy’s potential strengths, size, and omnipresence, managers with a western mindset frequently view the economy solely from the perspective of the *formal* private sector.

Although the considerable size of the informal economy does not entirely exist by choice, people do not seem to desire an economy that depends solely on formal, money-based transactions (Friedman, 2000). They also seek to satisfy the social need, reinforced by internal solidarity (Viswanathan et al., 2007), of supporting each other and being organized into social networks (Narayan & Pritchett, 2000; Udry, 1990). Similarly, the substantivism paradigm from anthropology argues that economic actions result from actors’ interaction with their social and natural environment (Polanyi, 1944). Polanyi

(1944) reasoned that "disembedding" the economy from its social and natural context produces widespread cultural alienation among people and leaves society and the environment without protection. The formal economy may have strengths but it also has disadvantages and an increasing dependence on a money economy may even exacerbate poverty. The Ladakh story by Norberg-Hodge (1991), which is also mentioned by Hart (2005), provides a vivid illustration of the harm that can be done if an increasing dependence on a money economy breaks down a culture.

In sum, business models that ignore either the formal or informal economy are more likely to fail (London & Hart, 2004). The two are complementary; while people at the BoP are often stuck in the informal economy, the private sector is often unable to see beyond the formal economy. Boundaries and rules set by the informal economy need to be respected. Both formal and informal economy need to be incorporated into a firm's business model. This may include producer cooperatives, communal enterprises, not-for-profit organizations, barter exchanges, self-provisioning, and the love economy. Leveraging the strengths of both economies will contribute to a firm's indigenousness. Nike, for example, developed a shoe for the BoP in China but marketed them solely through its traditional channels, building only on the formal economy (McDonald, London, & Hart, 2002). As a result, they failed to bridge the formal and informal economies, which resulted in commercial failure. They could have bridged the two economies through partnerships with counterfeiters, thereby building on counterfeiters' strength to market to the poor (Hart, 2005: 205).

46. Fly under the radar

As we argued previously, it could be counterproductive for a business model to rely on traditional institutions, irrespective of whether these are from developed countries or developing countries. These could be institutions such as national governments, corrupt regimes, global financial institutions, and central infrastructure planners. Potential problems with these institutions are their top-down approach, protectionism of developed markets and the status quo, bureaucracy, and corruption (de Soto, 2000; Easterly, 2006; Stiglitz, 2002). Furthermore, they may be subject to economic and political instability (Hoskisson et al., 2000; Jenkins & Thomas, 2002) and frequently changing regulations (Arnold & Quelch, 1998), which could cause uncertainty and make it difficult for firms to rely on these institutions. Although these problems call for institutional change, the examples of China, India and the, on the whole, somewhat less successful development of African nations teach us that institutional change is generally only accomplished if there is sufficient bottom up pressure for change. One way to stimulate bottom-up pressure is by developing businesses that are targeted at the BoP (e.g., see business model quality 8). Until sufficient institutional reform in favor of a pro-poor perspective has occurred, it might be best to avoid depending on governmental bodies and global financial institutions in these countries where possible.

To avoid such dependence, Hart (2005) suggests that firms "fly under the radar"—i.e., if confronted with an unsympathetic political or institutional system, firms should limit their dependence on them as much as possible and not attract attention to themselves. Hart (2005) illustrates it with an example of a water company that signed large agreements with central governments. "The highly visible nature of the agreements makes the scale and scope of the agreement—and the potential profit for World Water [name of the firm]—readily apparent to a broad range of bureaucrats, government officials, and others who might benefit from either derailing the project or currying favor before it is allowed to move forward" (Hart, 2005: 200). Hart contrasts this firm to another firm in the water business, which developed a business model that delivered directly to the user and thereby avoided dependence on a central government.

The above demonstrates that firms can avert attention and fly under the radar through forming small-scale initiatives instead of relying on central coordination in which central institutions need to be included. For, a single large-scale initiative may attract a lot of attention and might therefore not work. As we will also see in paragraph 5.3.5, the suggestion that firms limit their dependence on and collaboration with traditional institutions, which global institutions generally are (cf. business model quality 57), restricts their scalability. This illustrates how the existing global institutional framework limits large-scale impact by businesses targeted at low-income people (cf. Stiglitz, 2002).

47. Indigenous to local entrepreneurship and local skills

Low-income people are not usually self-employed by choice. They are frequently forced into it by the considerable costs and complications needed to become part of the formal economy (de Soto, 2000). In addition to this, many only have few skills and little capital, making it easier to become a small-scale entrepreneur than finding a job (Banerjee & Duflo, 2007). Nevertheless, the informal economy[32] is "an immense and fast-growing economic system that includes a thriving community of small enterprises, barter exchanges, sustainable livelihoods activities, subsistence farming, and unregistered assets (Chambers, 1997)" (London & Hart, 2004: 353). In fact, Prahalad (2005) argues that there is evidence of a latent entrepreneurial drive and motivation at the BoP. In the informal sector this can be seen by the large number of micro entrepreneurs and the resourcefulness shown by low-income people in creating survival strategies (Chambers, 1997). Not

[32] This business model quality has a strong link with business model quality 45: "Bridges the formal and informal economies".

surprisingly, therefore, Narayan et al. (2000b) report self-employment or entrepreneurship to be one of the most frequent paths out of poverty for low-income people.

Hence, local entrepreneurship has a strong presence at the BoP and will affect firms whether they like it or not. Therefore, firms cannot ignore it. A good example of this is when a local entrepreneur markets counterfeit versions of firms' products (Arnold & Quelch, 1998). Moreover, local entrepreneurship at the BoP contains great strengths and if firms leverage local entrepreneurial drive to their advantage it can present great opportunities for both firms and entrepreneurs. For, while firms may be able to contribute to the capacity of local entrepreneurs—e.g., in the form of market access and business skills (see the business model qualities with regard to producer capacity)—local entrepreneurs can be valuable to firms as they have access to and can market to low-income people. They can localize value creation and serve as a source of local knowledge. Firms should therefore build on these entrepreneurial skills and develop them further. One challenge they will have to face is to find the right local entrepreneurs to fit their business model and to subsequently train them. In fact, Karnani (2007a: 104) argues that a true entrepreneur "is a person of vision and creativity who converts a new idea into a successful innovation, into a new business model" and that such true entrepreneurs are scarce amongst the BoP.

In many countries, women at the BoP in particular, are considered to have an entrepreneurial orientation and a willingness and sense of responsibility to be initiators of change (Gammage, Diamond, & Packman, 2005; Prahalad, 2005: 108; United Nations, 2006). They are making their voices heard and are displaying initiative in the economic, cultural, and social lives of their communities through their informal networks. It is, therefore not uncommon for firms at the BoP to undertake initiatives directed towards empowering and organizing women with the aim of developing and building on their entrepreneurial capacity. Prahalad (2005) mentions the examples of Grameen Bank, Grameen Phone, ICICI Bank, and Project Shakti of Hindustan Lever Limited.

In addition to developing local entrepreneurial skills, firms can also leverage and develop other existing skills in local communities. This requires firms to identify the skills in which a community excels. In contrast to leveraging local skills, firms can also be disruptive to these skills. For example, a firm may teach a community new skills and divert people from their local expertise, which in the past had enabled them to survive (e.g., a community's ability to catch fish). If the new skills are very specific to the firm and if, after some generations, the firm leaves the community, the people will have learned skills that no longer have any value and they may have lost expertise, which had enabled them to survive in the past. Being indigenous, instead of disruptive, with regard to local skills may also involve deskilling work (cf. business model quality 54) and a product design that reflects the local skill level (cf. business model quality 4).

48. Indigenous to the assets in place at the BoP

Low-income groups at the BoP, have more than just their entrepreneurial drive, their culture, and an institutional framework, they also have other formal or informal assets. These could be their self-constructed mud houses, a radio, a well or easy access to water. They could own a piece of land, which is often the case in rural areas (Banerjee & Duflo, 2007), although they may not hold the formal property rights (de Soto, 2000). Their assets also include the comparative advantages of the local natural environment in which they live.

As with the previous business model qualities, leveraging the assets in place can augment the effectiveness of a firm's business model. For example, if people have access to a radio but not to a television, it would not be sensible to try to communicate to them through television commercials. A community is more likely to absorb an offering if it builds upon an existing asset base, as it would probably feel familiar to them. The offering would therefore cause less stress (cf. business model quality 9).

Although a value proposition where the benefits outweigh the costs will interest the BoP, the costs will probably be perceived as too high if it were to render their current possessions obsolete. As the poor do not have many possessions (Banerjee & Duflo, 2007) they may not be inclined to drop a previous investment. In fact, "[p]oor people rarely speak of income but focus instead on managing assets—physical, human, social, and environmental—as a way to cope with their vulnerability" (Narayan et al., 2000a: 7). Productive assets are what the poor lack and need to survive and escape poverty. These include "physical assets, particularly land and housing; human assets, such as health and entrepreneurial skills; and social assets or social networks" (Narayan et al., 2000a: 218). De Soto (2000) demonstrates that it is not that the poor do not own assets but more that they are unable to make these assets productive (cf. business model quality 17). Hence, they would rather invest in an offering that helps them get more out of the assets they already own; or in other words, they rather invest in an offering that leverages their existing asset base. Although some products, particularly those linked to their status, might persuade those at the BoP to drop a previous investment and invest in a superior asset. As a community develops and its asset base develops with it, there will be ever more assets for firms to build upon.

5.3.4 Learning through native capability

Business model development necessitates an understanding of the needs at the BoP, how people use the products/services available to them, how they spend their time and money, what production challenges they face, where and when people buy/sell, what access to markets and information they have and what access they miss, the conditions under which products/services are used and the functionalities relevant in that context, desirable interfaces, values associated with products/services, and so on. But it also requires an understanding of the deeper questions that underlie the development of an appropriate business model, including how low-income people manage to survive, what they value in life, and what cultural, religious, political, and social influences they experience in their daily lives. Without knowledge and an understanding of the answers to these kinds of questions it will be difficult for firms to develop a business model and value proposition that will be successful at the BoP. The people holding the relevant knowledge and perspectives about the BoP are the poor themselves. Hence, learning depends on marginalized groups and communities; the poor, weak, isolated, disinterested with respect to the local firm, non-legitimate, displaced, and even non-human (Hart & Sharma, 2004: 8). For firms to engage with the marginalized "fringe", they need to develop what is referred to as native capability. This notion was developed in Hart and Sharma (2004) and Hart (2005). Native capability is the dynamic capability to "systematically identify, explore, and integrate the views of stakeholders on the "fringe"" (Hart & Sharma, 2004: 7) and to co-discover and co-create new business opportunities and business models with marginalized groups and communities (Hart & Sharma, 2004; Hart, 2005; Hart & London, 2005; Simanis et al., 2008).

Learning by firms at the BoP depends on the extent to which their business model incorporates the three dimensions of native capability (Hart, 2005; Hart & Sharma, 2004; cf. Crossan, Lane, & White, 1999). First, firms "fan out"—i.e., firms "put the last first" (Chambers, 1997) and explore the perspectives of those living at the BoP. During this stage the firm explores opportunities for new business models and products and services. Next, firms "fan in"—i.e., they integrate or absorb the new perspectives into the firm, adjust their mindsets, and develop ideas for new solutions. Hence, they formulate practical solutions for the opportunities and potential problems identified during fanning out. Fanning out and fanning in are similar to idea generation (divergence) and idea evaluation (convergence). Lastly, the firm experiments and co-develops new solutions with the people from income-poor communities and other relevant, non-traditional, stakeholders. The focus during this stage is on implementation. The three steps reinforce each other and occur simultaneously and in a holistic manner.

These steps are taken "for the express purpose of managing disruptive change and building imagination about future competitive business models" (Hart & Sharma, 2004: 7). Learning through native capability is a continuous process at a local level, which not only enables managers to overcome existing mindsets but can also assist firms in dealing with local differences between regions. Indeed, it generates decentralized innovation, which produces solutions at a local level thereby ensuring alignment of the business model with local conditions and desires (cf. Ellerman, 2005). Hence, native capability enables a business model and firm to become truly embedded. In fact, native capability and embeddedness are strongly related in that embeddedness facilitates learning through native capability, while native capability generates embeddedness.

The heterogeneity and uncertainty of conditions and people at the BoP (e.g., Arnold & Quelch, 1998; Dawar & Chattopadhyay, 2002; Hoskisson et al., 2000) make responsiveness to local conditions a valuable capability. Given these BoP characteristics, continuous learning and monitoring are crucial—e.g., because of changing conditions or if entering new regions or markets. Therefore, the idea is to make learning—and thus fanning-put, fanning-in, and co-development—an intrinsic part of daily business instead of an activity disconnected from the daily business transactions and production process. This ensures that doing business automatically leads to new knowledge from poor communities thereby ensuring a continuous flow of information that keeps a firm in touch with changes and concerns in the community. The development of a sense of community (cf. paragraph 5.3.3) requires such a strong connection to community concerns. In addition, it stimulates innovation and continuous refinement of the business model.

Assessment of learning through native capability involves assessment of the level of incorporation of the three dimensions on which native capability rests in firms' business models. It includes the structures, systems, human abilities, and activities in place to fan out, fan in, and co-develop. A fourth dimension of learning is added, which suggests that as firms learn and change, they need to maintain a fit between their products/services and the business model.

Learning through native capability

49. Fanning out: Systemic identification and exploration of the perspectives of poor communities (competitive imagination)
50. Fanning in: Systemic integration of the diverse and disconfirming perspectives of poor communities
51. Co- development of solutions
52. Dynamic fit between products/services and business model

49. Fanning out: Systemic identification and exploration of the perspectives of poor communities (competitive imagination)

Accurate knowledge about the BoP is generally not readily available (cf. Grosh & Glewwe, 1995). Poor, marginalized groups and communities hold the "knowledge and perspectives that are key both to anticipating potential problems and to identifying innovative opportunities and business models" (Hart, 2005: 171). They hold contextual knowledge and perspectives vital in the firm's pursuit to develop business ideas that sustainably serve the community's needs. However, there is a lot of distrust amongst people at the BoP (Banerjee & Duflo, 2007) and to come up with suitable business ideas firms often have to overcome their existing mindsets. Therefore, to spark the imagination and produce the ideas of disruptive innovation necessary to develop businesses targeted at the poor, firms engage in deep listening and mutual dialogue with poor communities (Simanis et al., 2008).

To this end, firms have to identify the right stakeholders. The majority of these stakeholders, themselves, come from the poor communities themselves. Self-organized groups, local organizations, local NGOs, social entrepreneurs, and other individuals can all be stakeholders with valuable perspectives. In fact, a firm may want to proactively search for the most marginalized stakeholders. Next, firms have to access these stakeholders, ask them the right questions, truly listen to them, and engage into mutual dialogue. It requires a two-way information flow thereby learning *with* the community rather than about the community (Simanis et al., 2008). Employees need to keep an open mind, and, during this period of fanning out, should be "[f]reed of the burden of the short-term commercial agenda, *thereby enabling managers* to win the trust of the local people, which ultimately *may lead* to new and unanticipated insights into how the company might better serve their needs" (Hart, 2005: 190). Fanning out thus calls for strong ties with a community (business model quality 39). If successful, fanning out is a mechanism to involve key stakeholders in an ongoing dialogue. It facilitates the co-generation and co-evaluation of ideas with the poor and other relevant stakeholders. Furthermore, fanning out stimulates competitive imagination—i.e., imagination about the community that might be, and about the firm within the community that might be.

To take advantage of these benefits, firms incorporate mechanisms in their business models that systematically enable fanning out. This will most likely include having employees go into the communities. For example, the BoP Protocol (Simanis et al., 2008) suggests that firms develop a base camp within communities where information is documented and co-owned by the community and the firm. Hart (2005) gives the example of a firm that—after having employees trained on cultural sensitivity and techniques to engage with the BoP— it sends its employees to live amongst the people at the BoP and live the same way as they do, thereby enabling systematic fanning out. Hart & Sharma (2004: 15) make a similar suggestion when they write that firms may enter in "close interaction with fringe stakeholders within remote contexts to generate new product ideas and business innovations, and to transfer tacit knowledge". The BoP Protocol (Simanis et al., 2008) suggests several "operating guidelines" for fanning out, including the willingness to admit ignorance, the importance of humility, to embrace ambiguity, and to put the last first. Participatory rural appraisal techniques are also highly relevant in this matter (Chambers, 1997). Moreover, a consortium of firms from different industries may carry out engagement with the BoP as such can stimulate a cross-fertilization of ideas, which can help firms overcome their existing mindsets (Hart, 2005).

50. Fanning in: Systemic integration of the diverse and disconfirming perspectives of poor communities

Fanning in refers to the integration of the understanding and imagination that result from fanning out into the firm's own perspectives and translating them into new business ideas and practical strategies. During fanning out the focus is less business-specific and is on "building relationships with local people and to gain an appreciation for how people in the community live their lives" (Simanis et al., 2008: 20). During fanning in the focus changes to the relevance to the firm. Fanning in, therefore, "focuses on the articulation and implementation of practical solutions to the problems and opportunities identified in the "fan-out" stage" (Hart & Sharma, 2004: 16). In the terminology of Crossan et al. (1999), while fanning out entails intuiting and interpreting, fanning in continues with interpreting and follows up with integrating and institutionalizing.

Because the perspectives of poor communities can be diverse and disconfirm the firm's own perspectives, it is necessary to reconcile these perspectives with the existing mental maps or dominant logic within the firm. Indeed, "practical strategies emerge only after the apparent contradictions between knowledge from fringe stakeholders and the current business model have been reconciled" (Hart, 2005: 176). However, the potentially significant differences in cognitions make it difficult to obtain a deep understanding of the views of the BoP and make reconciliation with the firm's own cognitions difficult. Interaction thus needs to be intense before one can truly understand and absorb the tacit knowledge residing in people and their traditions. Large group meetings or formal negotiations may not be the appropriate setting for such intense interaction (Hart, 2005). In addition to intense interaction, obtaining a deep understanding requires managers to respect and empathize with differences in perspectives (Simanis et al., 2008).

We can distinguish between three phases of fanning in. First, firms evaluate the consequences of the knowledge and perspectives that they learned through fanning out. In particular they look into the consequences for the validity of their assumptions and where opportunities exist. Second, firms integrate these new perspectives and knowledge into their mental maps. To this end, they reconcile these new perspectives and knowledge with their existing perspectives thereby developing new mental maps. This requires absorptive capacity (Cohen & Levinthal, 1990) and dynamic capabilities in resolving paradoxes and re-evaluating a firm's existing dominant logic. The result is new knowledge, a new perspective throughout the firm, and an understanding of the opportunities for the firm at the BoP. Optimal utilization of this knowledge calls for knowledge management within firms (e.g., exchange of knowledge between different BoP projects). Third, the firm formulates and initiates new business ideas and practical strategies by making use of the integrated knowledge, perspectives, and understanding that result from the second phase.

The same mechanisms that are used for fanning out also contribute to fanning in. For example, by sending employees into poor communities, these employees learn new perspectives thereby making these perspectives part of a firm's perspectives. Nevertheless, this may remain limited to the employees directly involved. For new perspectives to be absorbed throughout the entire firm, additional knowledge diffusion and integration mechanisms are to be put in place (Crossan et al., 1999). For example, a firm can set-up a corporate venture department that stimulates knowledge exchange between BoP initiatives. Firms can also stimulate integration of knowledge and perspectives from poor communities by employing people from these communities. Another way is to strive to reconcile conflicting perspectives by having brainstorm sessions with the BoP (Hart & Sharma, 2004; Letelier et al., 2003). Again, participatory rural appraisal techniques are highly relevant in this matter (Chambers, 1997) and applied techniques should fit the BoP context (Viswanathan et al., 2008). Also (corporate) incentive and monitoring systems can be used to stimulate all employees to absorb perspectives gained at the BoP.

51. Co-development of solutions

Fanning out and fanning in produce a deep local understanding as well as co-generation of ideas and co-discovery of new business opportunities and business models that are relevant to the firm. The subsequent notion of co-development refers to the actual implementation[33] and development of these ideas, i.e., the actual development of the enterprise in a mutual business partnership with poor communities and other relevant stakeholders. Hence, it means turning the generated ideas into successful business enterprises (Neale & Corkindale, 1998). Co-development surpasses the idea of local responsiveness—it is developing the business model and product/service through active, participatory engagement with a complete set of actors from the local ecosystem (Hart, 2005; London & Hart, 2004). The launch and creation of the business thus take place in concert with a network of actors from outside the firm (cf. Brown & Hagel, 2006), most importantly people from the BoP.

The poor thereby have an important say in the firm's design process. They may, for example, take part in the project team, have a say in design decisions, and co-develop

[33] Hart & Sharma (2004) and Hart (2005) consider implementation a part of fanning in. We distinguish between fanning out and fanning in on the one hand and co-development on the other hand as fanning out and fanning in here solely refer to idea generation, evaluation, and integration, while co-development also includes the execution of the ideas, something in which the BoP and other stakeholders are given an active role; not only as actors who evaluate ideas and generate new ideas but also as actors who actually implement/execute.

impact measures to monitor the enterprise's progress. This way, co-development stimulates the BoP to take ownership as well as empowering them (cf. business model quality 8). In addition to this, it builds local capacity and stimulates a firm's embeddedness in the community. In fact, "[b]y integrating the concerns of diverse and distant stakeholder groups, *learning through native capability* holds the potential to improve relationships and build a fund of goodwill with diverse stakeholders, thereby avoiding the wrath of the smart mob. Such goodwill not only enhances the firm's legitimacy in its current business but also, more importantly, enables it to access knowledge from adversarial or marginal stakeholders at the fringe" (Hart & Sharma, 2004: 10). As a result of its decentralized nature, co-development facilitates the creation of a firm that fits the local needs, desires, concerns, and abilities of the people at the BoP instead of a firm that is solely created by outsiders who, possibly from a western perspective, decide what is best for the BoP (Chambers, 1997; Ellerman, 2005). Also, co-development requires and ensures that not only is the growth in business wealth measured and monitored but also the firm's impact on the BoP and other stakeholders (Letelier et al., 2003). In addition to inclusion of people from the BoP, co-development and learning more generally, may require the inclusion of non-traditional partners—such as nonprofit organizations, community groups, civil society groups, and actors from the informal economy—who are embedded in the local context and are more likely to provide intelligence on the BoP than large national players.

Co-development demands that a firm allows relevant stakeholders to influence business design decisions and to make modifications to the business model and to its products and services. For example, London & Hart (2004) suggest firms allow for user innovation and modification. Similarly, local entrepreneurs could localize part of the value created (cf. business model quality 42). Nevertheless, co-development also suggests intense interaction between the actors involved. In fact, to enable co-development and to test and refine ideas, fanning out and fanning in continue during the implementation phase, ensuring the involvement of key stakeholders in an on-going dialogue and reflecting the continuous character of learning. Co-management of a business with relevant stakeholders is one way to achieve co-development. Hart (2005) mentions many small low-cost experiments as a strategy to develop native capability within the implementation phase. In fact, Hitt et al. (2005) and Mahajan et al. (2000) suggest focusing on using BoP markets as laboratories for business model innovation and product innovation. Hart (2005) stresses using a real-options approach as a way to evaluate these experiments.

52. Dynamic fit between products/services and business model

London and Hart (2004) identify co-evolution of the product and the business model as a determinant of success at the BoP. Co-evolution refers to simultaneous and mutual causal adaptations between, in this case, the product and the business model (Lewin & Volberda, 1999; McKelvey, 1999). Worded differently, London and Hart find that the business model and the product (or service) cannot be developed independently from each other. Instead, they should be developed in concert and thereby adapted to each other.

Those firms that did not develop the product and business model in concert "tended to view the value proposition in terms of the product itself, and often completed the development process at a centralized and geographically distant location (for example, at corporate R&D centers) prior to designing the business model" (London & Hart, 2004: 363). However, developing a product—perhaps even with a top-down approach such as a skinned version of a top-of-the-pyramid product—and subsequently "dumping" the product on BoP markets without a well-crafted business model generally produces poor performance. Indeed, the value proposition comprises more than the product alone. The benefits and functionalities for users, i.e., the value proposition, are not only derived from the product but also from other aspects of the business model.

The business model is an invaluable unit of analysis when developing businesses at the BoP and warrants significant attention (e.g., Arnold & Quelch, 1998; Chesbrough et al., 2006; Dawar & Chattopadhyay, 2002; London & Hart, 2004; Seelos & Mair, 2007). Reasons for this are discussed in more detail in Chapters 1, 2, and 4. Because some business challenges are specific to the BoP context (e.g., Banerjee & Duflo, 2007; Hammond et al., 2007; cf. Chapter 2), success requires innovative business approaches—not only innovative products—from firms of which the logic may significantly differ from that at other tiers of the pyramid (cf. Chapters 1 and 4). Success at the BoP requires disruptive innovation of *multiple* aspects of the ways firms do business, such as in value chain management, workflows, organization, human resources management, market research, risk assessment, and scaling up businesses. Thus "it seems highly unlikely that a single theoretical perspective may be able to explain strategic decisions" in the BoP and "an integrated approach that brings together various theories may be more fruitful" (Wright et al., 2005: 11). The business model concept takes this holistic, multi-theoretical approach (cf. Chapter 3), which is necessary for firms to reevaluate the full logic of how they do business at the BoP.

Product development and business model development are mutually dependent. Different business models are appropriate for different products and services. For example, a product's capacity influences the possibilities for the business model—take the energy sector, in which some products develop the central electricity grid and service an entire village or city from a single source, while other products, with a smaller capacity, target individual households. This difference in product capacity may affect the distribution strategy such as the distribution channels, partnerships such as whether or not to use local entrepreneurs, the manufacturing strategy, and the strategy on how to deal with the government. Product complexity, usable lifetime, risk of theft, ease of storage and transport, importance of complementary services, etc. are all product characteristics that may fit different business models. Hence, different product characteristics generate different business model requirements and therefore fit different business models. Similarly, desires with regard to the business model, such as any of the business model qualities discussed in this chapter, affect the possibilities with regard to the product. Consequently, a change in product needs to be taken into account in the development of the business model and vice versa. Such contributes to a dynamic fit between the two and for improvements to be effective.

To facilitate co-evolution between product and business model, those involved in the development of either of the two should be engaged in the development of both. That is, the development of either of the two should not be detached from the development of the other.

5.3.5 Scalability

Patient and flexible capital is important for firms at the BoP as it may take some time to find the right business model and product (or service) design in this relatively unfamiliar environment (Alvarez & Barney, 2007). Nevertheless, once the right business model and product design have been found, the capacity to expand becomes key. The growth potential may be significant given the size of the BoP and the fact that competition may consist of non-consumption—meaning that people don't first need to unlearn nor are they locked into a current consumption pattern. This significantly eases the adoption and diffusion process. Indeed, existing markets are not well served by incumbent firms; unmet needs are considerable as is the poverty penalty (Hammond et al., 2007). Prahalad (2005: 50-51) argues that the window of opportunity to scale up, however, is generally short because "[m]any of the drivers of change and market growth—deregulation, involvement of the private sector in BoP markets, digitization, ubiquitous connectivity and the attendant change in the aspirations of people, favorable demographics (a young population), and access to credit—are simultaneously present in BoP markets". To be able to seize the growth potential while having such a short window of opportunity requires scalability from the business model.

Scalability is made all the more important by the slim margins at the BoP, which make volume a key driver of success (Prahalad, 2005). Through scalability—in terms of geographic scope as well as the sales within that geographic scope—firms can seize economies of scale and scope and lower costs, thereby better serving more people at the BoP. Hence, scalability enables firms to capitalize on the BoP's full potential and enables a larger financial, social, and/or environmental impact (Uvin et al., 2000). Scalability can therefore justify the large upfront investments that experimentation, the development of the extended value chain, and local capacity building—which may be necessary at the BoP—may generate.

Scalability refers to the capacity to expand quickly, effectively, and efficiently. This includes serving more people with the same product within the same region, as well as extending into new markets, horizontally and vertically (cf. Hancock, Proctor, & Csaki, 2003; Uvin et al., 2000). Therefore, a business model is built to scale if, without changing its shape, it can handle demand of an arbitrary size and nature (geographic location and product group). This entails not only the capacity to almost instantaneously service more demand (expand quickly), but also the capacity to expand without a loss in performance of the business model (expand effectively) and against low costs and effort (expand efficiently). This usually necessitates raising a firm's managerial capacity. Moreover, it may require a significant effort to develop certain business model qualities, such as embeddedness and local capacity, which may thus restrain a business model's scalability. In short, the scalability of a business model has two facets: the quantity and availability of the necessary inputs (including managerial capacity (Barringer & Jones, 2004)), and the ambition and applicability of the business model.

Scalability

Necessary inputs

53. Return on capital employed (ROCE)
54. Deskilled work
55. Access to (material) assets
56. Span of effort: Resources, including time, and managerial capacity necessary to expand and to develop into a financially sustainable business
57. Partnered with scaled organizations at the BoP

Ambition and Applicability

58. Growth ambition and drive
59. Applicability at the middle- of- the- pyramid and the top- of- the- pyramid
60. Potential to scale out
61. Flexibility and/or robustness

The actual scaling up calls for the identification and articulation of the preconditions for success (Prahalad, 2005: 74). What is required from the business model and the context to make it work, and why? Indeed, scalability is only a potential. To actually realize this potential requires a firm "to articulate … both its view of why its program [i.e., its business] works and its understanding of the activities required to produce successful outcomes" (Bradach, 2003: 20). Subsequently, these are the preconditions that need to be replicated as the firm scales up, and these are the preconditions based on which choices are made with regard to where and in which markets to expand. Without articulation of the preconditions for success "replication becomes extremely difficult, because it is impossible to determine what is working and why" (Bradach, 2003: 21).

53. Return on capital employed (ROCE)

Serving low-income people imposes great cost restrains upon firms to achieve a price–performance ratio that would enable the BoP to do business with them. A high price–performance ratio likely also necessitates slim profit margins. Profitability at the BoP therefore depends on volume. Yet capital is scarce and expensive, and many resources too, are scarce and tend to be concentrated in the hands of a few large organizations (Arnold & Quelch, 1998; Khanna & Palepu, 1997). Also, it can be difficult to import certain resources. As a result, capital intensity generates high costs and hampers growth and thus profitability. In other words, to keep costs low and to create scalability, firms need to maintain a low cost of capital. It is the efficiency of capital use rather than profit margins that determines profitability at the BoP (Prahalad, 2005). Capital efficiency depends not only on a low capital intensity but also on a short payback period, as a swift recovery of investment costs frees up money for reinvestment.

Revenue management, logistics and distribution—such as management of inventory and planning, and coordination throughout the supply chain—and other forms of cost control that optimize the utilization of a firm's capital are important to enhance the return on capital employed (Prahalad, 2005). Furthermore, firms may decide to partner with other organizations to obtain access to resources (London & Hart, 2004). Building on other organizations' assets—e.g., through partnerships or outsourcing—diminishes the need to own the assets required to expand and thereby reduces the capital requirements on the firm (Hagel, 2002). One disadvantage of this strategy could be that this dependence on other actors might hinder scalability (cf. business model quality 57).

54. Deskilled work

Human resources at the BoP pose an opportunity as well as a problem. On the one hand human resources are widely available against low costs, whereas on the other hand the levels of skill and education are low and illiteracy is common (Banerjee & Duflo, 2007; Narayan et al., 2000a,b). By reducing the skills necessary to do a specific job, i.e., by deskilling work (Grint, 1998: 179-186), firms can take advantage of the labor opportunity while mitigating the associated problem (Prahalad, 2005). This idea is similar to the idea that division of labor stimulates economic growth (Landrum, 2007; Smith, 1976).

Deskilling work creates opportunities for more tasks to be performed by low-income people thus making it possible to include them more as producers. This increases their purchasing power—thereby producing externalities from which the firm may also benefit—and furthers firms' involvement at the local level. Because of the relatively low costs of low-income laborers, deskilling work may reduce firms' costs, thereby augmenting firms' access to low-income consumers. Moreover, by allowing more of the work to be completed by low-income people, whose low-cost labor is widely available, labor employment becomes highly scalable. Indeed, due to the wide availability of labor, firms can quickly access the pool of low-income laborers and do so effectively (deskilling work reduces the need for training of employees) and efficiently (because of the low costs of low-income laborers).

Technology is an important enabler of deskilling work. Furthermore, deskilling work often entails division of labor (Grint, 1998). Potential negative effects of deskilling work that merit attention and could negatively affect other business model qualities, are a reduction in discretion and judgment on the job, a narrowing of the range of tasks performed, and a decline in autonomy from supervision (Littler, 1982).

55. Access to (material) assets

Another determinant of scalability is access to the material assets that a business model needs, such as the raw materials, technology, and tools. Many assets may not always be readily available at the BoP or they may only be available in a quality that is unsatisfactory or against very high costs. As we already mentioned, many resources are scarce and tend to be concentrated in the hands of a few large organizations (Arnold & Quelch, 1998; Khanna & Palepu, 1997). Yet, importing assets may be time-consuming and expensive due to rampant corruption, and bureaucracy, frequently and unpredictably changing regulations, and inefficient logistical chains (Arnold & Quelch, 1998; de Soto, 2000; Robertson & Watson, 2004; Rodriguez et al., 2005; Svaleryd & Vlachos, 2002; Uhlenbruck et al., 2006; World Bank, 2004). Against this backdrop, scalability calls for quick, efficient, and effective access to the assets that a firm's business model relies on and enable that business model to prosper.

To ensure access to assets, Bradach (2003) underlines the importance of taking asset availability into account when choosing locations to expand to. Hagel (2002), furthermore, points out that it is not always necessary to own the assets as long as a firm has access to the assets through partners. The need to own assets, therefore, also determines a firm's access to assets. In addition, it suggests that access to assets may profit from good partnership strategies, which, of course, also come with costs such as possibly loss of control. Similarly, value chain management may help if assets are of low quality or their costs are too high. For example, assisting suppliers in their production can help if assets are available but are not of the desired quality (cf. business model quality 16). Some firms also choose to produce the necessary assets themselves to ensure their availability.

One form of assets that is particularly widely available at the BoP is dead capital (de Soto, 2000; see also business model quality 17). Therefore, business models whose asset needs mainly take the form of dead capital might be highly scalable, i.e., if these business models indeed have quick, efficient, and effective access to dead capital and are able to turn dead capital into productive assets. In this matter, scalability can benefit from access to dead capital that doesn't depend on legislation, since the legislation to acquire legal title to assets differs considerably between regions and the process is typically resource intensive (de Soto, 2000).

56. Span of effort: Resources, including time, and managerial capacity necessary to expand and to develop into a financially sustainable business

The span of the effort to scale up consists of the resources, including time, and managerial capacity that are necessary to expand and to develop into a financially sustainable business. This entails establishing the business model that is able to manage a larger capacity as well as developing the business model qualities to a level at which the business model is sustainable while serving more people, a new region, and/or an extended product portfolio.

First, the span of effort to establish a business model that is able to operate at a larger scale, either by expanding to new locations, extending the product portfolio, or expanding the capacity of the existing business. If a business model were to be perfectly scalable, it could handle any capacity without additional effort. This, however, is only a theoretical level of scalability. To expand the capacity, capabilities may need to be developed, resources acquired, a knowledge base built up, personnel hired, management systems implemented, a culture cultivated, etc. This not only applies to scaling up to new regions but also to an extension of the product portfolio and to expansion without broadening a firm's scope. In fact, in Chapter 2 we demonstrated that as firms expand and move through the organizational life cycle they are confronted with new business challenges, with which they will have to become familiar.

If essential knowledge is tacit, it will be more difficult to replicate than if it is made explicit. The effort to replicate a business model at new locations depends, therefore, on a firm's ability to articulate and standardize its "key activities and the key components [and linkages] of its operating model [business model]" (Bradach, 2003: 21; cf. Chapter 3). One of the factors on which the ability to standardize depends while operating in the heterogeneous business environment of the BoP (e.g., Dawar & Chattopadhyay, 2002; Hoskisson et al., 2000; Letelier et al., 2003) are the business model's robustness and flexibility (cf. business model quality 61). Nevertheless, a business model that can be easily replicated by a firm itself may also be easy to replicate for competitors, and therefore reduce a firm's competitive advantage.

Second, in addition to the establishment of the business and its business model, the span of effort entails the development of the new business—including the business model qualities—to a level at which it is financially sustainable. For example, if a firm first has to build the infrastructure, organize and develop a market-based ecosystem, obtain difficult to obtain licenses, and educate potential customers, this takes a larger effort than if a well-developed infrastructure is already in place, a thriving ecosystem exists, licenses can be easily obtained, and potential customers are already aware of a firm's benefits. It is not improbable that the local capacity at the BoP will be insufficient initially if a firm scales up to a new region (e.g., Mahajan et al., 2000). Basic infrastructure may be lacking (Narayan et al., 2000a) and distribution systems and communication channels may be poorly developed (Arnold & Quelch, 1998). Furthermore, if a firm's business model depends on a market-based ecosystem based on transparent transaction governance this will probably have to be developed. Similarly, it takes time and resources to becoming embedded in local communities as does establishing learning mechanisms within communities. Hence, scaling up to new regions may involve more effort and costs than scaling up into a new product line or without changing the business scope. It may thus be more profitable to first fully develop a specific region before scaling up to others. Nevertheless, this may not always be the case and some firms will choose to first scale up to new regions before venturing into new product lines. This allows the exploitation of economies of scale and learning effects, and enables them to build a 'highway' to which new products and services can be added. Other organizations may subsequently want to leverage this highway to market their products. Furthermore, developing the business model towards financially sustainability is often complicated and enlarged by path dependence. Certain developments may simply need to occur before other steps can be taken, and small—difficult, if not impossible to predict—events may have a disproportionate effect on the development of the business model.

Part of the effort of scaling up depends on a firm's managerial capacity and the ability to scale up that managerial capacity. A greater managerial capacity would entail fewer costs and less effort to administer a firm's operations and growth.[34] The idea of managerial capacity was first articulated by Penrose (1959). It refers to a firm's ability to administer its operations and thus captures the scale of operations that a firm is able to administer. Therefore, when a firm has the opportunity to expand, its managerial capacity has to scale up as well to administer and accommodate the expansion. Barringer and Jones

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[34] Hence, managerial capacity is the effectiveness and efficiency with which a firm administers its operations. Increasing a firm's managerial capacity may not only be necessary to administer the firm's growth but may also enable a firm to serve more people with the same product within the same region, thereby scaling up the business without a change in business scope. In fact, in the non-profit sphere scalability is typically considered an increase in impact (Uvin et al., 2000).

(2004: 74-75) argue that as a firm has to scale up its managerial capacity, a managerial capacity problem may present itself in four dimensions: (a) "it takes time for new managers to be socialized, acquire firm-specific skills and knowledge, and work with other firm members long enough to establish trusting relationships"; (b) managers may have a lack of motivation to grow (cf. business model quality 58); (c) adverse selection: the faster a firm grows and the more employees a firm needs, the more difficult is becomes "to find the right employees, place them in appropriate positions, and provide adequate supervision"; and (d) moral hazard: "new-hires typically do not have the same ownership incentive as the original founders". Also, as a firm scales up, decision makers within that firm may become disconnected from the realities on the ground. Establishing a business model that is able to operate at a larger scale, therefore, includes reducing the cost and effort of administration. That is, if the managerial capacity is insufficient, the span of effort includes scaling up the managerial capacity, which requires a firm to deal with the managerial capacity problem.

One way for firms to narrow the span of effort is through partnerships. This may include localizing parts of the effort (Uvin et al., 2000), for example through micro franchising (Bradach, 2003). In this way a firm can spread the effort across multiple actors who may already have aspects of the effort in place (e.g., the distribution network, infrastructure, trust within communities, access to information) and/or can execute parts of the effort more effectively and efficiently. However, establishing partnerships like this also takes a great amount of effort (cf. business model quality 57). Furthermore, performing well on the other business model qualities regarding scalability and the necessary inputs reduces the span of effort. Barringer and Jones (2004) and Barringer, Jones, and Lewis (1998) offer an overview of strategies dealing with the managerial capacity problem, such as the use of mission statements, training, stock options, and several other strategies.

57. Partnered with scaled organizations at the BoP

The value of partnerships at the BoP has been illustrated in several of the previous business model qualities. Research on the BoP has emphasized their potential value as well (e.g., Brugmann & Prahalad, 2007; Chesbrough et al., 2006; London & Rondinelli, 2003; WBCSD, 2004). Not traditional partners—such as national governments and large local companies—but non-traditional partners—such as NGOs, social institutional players, community groups, local entrepreneurs, and extralegal actors—are the most likely actors with propositions most valuable to firms at the BoP (Hart, 2005; London & Hart, 2004; Prahalad, 2005). They are the most likely to possess the local understanding, embeddedness, infrastructure, and relationships that provide access to resources that firms seek. Therefore, they can reduce the span of effort for a firm (cf. business model quality 56). In addition, they are more likely than traditional partners to possess the social orientation needed at the BoP. Therefore, they make valuable partners for firms for co-development, development of embeddedness, and to "outsource" parts of the business model to. Indeed, they present beneficial learning opportunities. For example, non-traditional partners can enable firms to better "understand and leverage existing social strengths in these business environments" and help understand which societal concerns are myths and which are realities (London & Hart, 2004: 362). Also, because of "a shift from a product delivery system to a total solution delivery system, … alliances are critical in low-income markets because they make it possible to … develop an integral offering to satisfy the basic needs of the poor" (Sánchez, Rodríguez, & Ricart, 2007: 87-88).

Hence, partnering with non-traditional partners is a potentially advantageous strategy at the BoP. Simultaneously, these potential partners can gain from working with the private sector as the private sector can help them achieve their social objectives (cf. Chapter 1). Chesbrough et al. (2006), for example, illustrate how NGOs take some of the initial investments and experimentation upon them (cf. business model quality 29). Subsequently, once the project does well, the NGO may choose to exit and leave it to the private sector to further develop it as a sustainable commercial solution.

Partnerships generally also create dependence and take significant effort to develop and turn into success (cf. Beamish, 1987; Hitt, Dacin, Levitas, Arregle, & Borza, 2000; London & Rondinelli, 2003). If a firm has to find new local partners each time it expands (enters a new region, expands it product portfolio, or expands its capacity in existing markets), this limits its scalability. Therefore, a business model is generally more scalable if it partners with actors that already operate at a large scale. These partners can serve as a quick, efficient, and effective springboard to new markets. This does not mean that a business model's scalability cannot benefit from small-scale partners, particularly when compared to a business model with no partners at all. Indeed, the contribution made by these small-scale partners may more than balance the effort it takes to create them each time the firm scales up. This doesn't alter the fact that if a firm could obtain these same benefits by partnering with large-scale organizations, this business model would generally[35] be more scalable than one that has to deal with the costs and deceleration of building new partnerships each time it expands.

Unfortunately, large-scale organizations seldom serve the poor themselves and thus do not have the local presence and understanding that generate the benefits that firms often seek in their partners (Stiglitz, 2002). In other words, these partnerships may be less effective and reduce the performance on other business model qualities. On the other hand, large-scale organizations may have a local reach through associations with actors that do

[35] That is, if the costs of partnering with a large-scale organization are not exorbitant.

operate at a local level. Such large-scale organizations can therefore still reduce the necessary effort that firms have to undertake to build partnerships with local actors.

58. Growth ambition and drive

Earlier we argued that the growth potential of the BoP can be significant. Such potential may be a source of inspiration and spark a firm's ambition and drive to grow. Consequently, the growth ambition and drive augment the business model's scalability, as firms with higher growth aspirations do generally also display greater growth (Gundry & Welsch, 2001; Wiklund & Shepherd, 2003). Indeed, growth requires the willingness to grow. Nevertheless, "while most theories of company growth take the willingness to pursue growth for granted (often because profit-maximizing behavior is assumed), empirical works more often stress a widespread reluctance to grow" (Davidsson, 1989: 212).

The ambition to grow is initially often determined by the need for achievement or inner drive of the founder or initiator of the business (Davidsson, 1989; Gundry & Welsch, 2001; McClelland, 1961). However, he or she may not aspire growth, for example because of fear of reduced employee well-being or loss of supervisory control (Davidsson, 1989, Wiklund, Davidsson, & Delmar, 2003). As the firm expands, the managerial capacity problem takes effect (Barringer & Jones, 2004; Penrose, 1959; cf. business model quality 56). Bureaucracy and centralized control make it difficult to maintain the drive of the founder; "implementing someone else's dream tends not to be nearly as satisfying as building one's own" (Bradach, 2003: 19). Consequently, maintaining the ambition and drive to grow becomes part of the business model. Scalability then depends on business model mechanisms that manage and generate this ambition amongst employees and other stakeholders.

One way to inspire growth aspiration is to ensure that all stakeholders see the firm's impact on low-income people's lives first-hand. Effects such as empowerment, augmented aspirational value, increased market opportunities, and enhanced local capacity can turn the BoP into thriving communities, thereby arousing the drive and motivation of employees and other stakeholders. Hence, the business context is a potential source of inspiration, which firms can leverage through their human resources strategy. This illustrates the interdependence of growth ambition and drive with a firm's sense of community, the latter of which can thus stimulate the former. A deeply shared and challenging mission with shared norms and values can also contribute to the drive and aspirations of people, while also reducing the need for supervision. Furthermore, having employees actually operate and create value at a local community level (cf. business model quality 42) may add to a firm's growth ambition and drive. In fact, if a firm localizes value creation by building on local entrepreneurs, it may leverage the entrepreneurial drive and motivation at the BoP (cf. business model quality 47). To this end, a micro franchising strategy may be beneficial as franchising facilitates different locations to maintain a certain level of autonomy and thus can preserve the entrepreneurial drive of ownership (Bradach, 2003). For this to work, it is "crucial to find local champions, who will exert the necessary energy and garner essential resources" (Bradach, 2003: 24). The energy of local entrepreneurs may again spark the growth ambition of others within the firm. This demonstrates the benefit of ambition and drive throughout all actors involved in the business model, including corporate headquarters, partner organizations, top-management, and other employees. Finally, Barringer and Jones (2004) and Barringer et al. (1998) also discuss several ways to manage the growth ambition of a firm, including recruitment and selection, the use of cash incentives, stock options, employee empowerment practices, and the use of a mission statement. Gundry and Welsch (2001) add that high-growth firms use a more organic, team-based form of organizational design, which may stimulate growth ambition as it exhibits a relative low level of centralization.

59. Applicability at the middle-of-the-pyramid and the top-of-the-pyramid

Innovations in business models, technology, and products and services, are often necessary for success at the BoP. These innovations may find their way to the middle-of-the-pyramid and the top-of-the-pyramid (Brown, 2005; Hagel & Brown, 2006; Hitt, Li, & Worthington IV, 2005; Mahajan et al., 2000; Prahalad, 2005). Hence, a truly global potential exists for BoP businesses. For example, higher-income people in developed countries now also make use of micro credit. Similarly, Prahalad (2006b) suggests that Western medical equipment manufacturers will soon face severe competition from Indian manufacturers as the latter have started to develop medical instruments of similar or better quality, yet against considerably lower costs. Aravind, for example, "produces its own intraocular lenses (used in cataract surgery) for $3 each, instead of importing them for $60 to $100 each. The quality is so good that Aravind now exports 50 percent of its production to the United States and other countries" (Prahalad, 2006b).

The likelihood that a BoP business finds application at other, higher, tiers of the pyramid, depends on the extent to which the business and its innovation also solve issues and meet needs at the middle and the top-of-the-pyramid. This is not unlikely since the BoP lends itself well for disruptive innovation, while the business issues at the BoP at an abstract level are strongly linked to the business issues in high-income markets (cf. Chapter 2). Through disruptive innovations, the BoP enables businesses to break existing paradigms and generate significant upturns in performance/price ratios in industries also relevant to the higher tiers of the pyramid. In other words, competitive advantage in high-income markets may depend on lessons learned in BoP markets.

The BoP lends itself well for disruptive innovation for several reasons. First, requirements and needs may be "extreme" at the BoP (e.g., Arnold & Quelch, 1998; Chesbrough et al., 2006; Dawar & Chattopadhyay, 2002; London & Hart, 2004). The same disruptive innovations would be difficult to achieve at the top-of-the-pyramid, where the existing mental maps of managers and entrepreneurs are much less challenged. Second, unlearning and sunk investments apply very differently to low-income people (Christensen & Raynor, 2003). They are often not locked into consumption patterns. This eases the adoption and diffusion process as well as enables businesses to move in directions that are closed in more developed markets. Once a business has made progress in a certain direction this might result in a significant leap forward, which could make it relevant to the higher tiers of the pyramid, even though in these markets such a move would not have seemed possible initially. Furthermore, although low-income people may need to unlearn certain practices, once the first hurdle of psychological commitment has been taken (cf. Banerjee & Duflo, 2007) they may be more keen to unlearn and to adopt ways to get ahead than wealthier people (Prahalad, 2005). Third, success at the BoP calls for holistic innovation, i.e., integrated innovation of multiple aspects of the way a firm does business, including value chain management, workflows, organization, human resources management, market research, risk assessment, and scaling up businesses. Fourth, business models, products and services, and technology are often co-developed with people, including people from the BoP, and organizations with significantly different mental maps (cf. business model quality 51).

60. Potential to scale out

Once a firm has developed a business model for one product-market combination, it can exploit that business model further by including additional products and services. This we refer to as scaling out. More specifically, scaling out refers to an extension of a firm's product line by incorporating new, and possibly related and complementary, products and services into a firm's business model. The potential for scaling out depends on the extent to which a business model forms an overall architecture or platform in which new products, services, and features can be easily incorporated (cf. Iansiti & Levien, 2004; Jones, 2003; Laurie, Doz, & Sheer, 2006; Prahalad, 2005; Ulrich, 1995; Ulrich & Eppinger, 2000). A firm contemplates how it can leverage its existing business model(s) to market new products or services that meet underserved customer needs within the boundaries of this platform (Laurie et al., 2006). Having a business model that functions as a platform makes it possible to extend it with a wide range of additional products and services against incremental costs relative to the development of the initial platform / business model (Meyer, Tertzakian, & Utterback, 1997). The costs can be merely incremental as the platform enables extension of the product line with minimal adjustments to the business model. The same processes, assets, capabilities, distribution channels, partners, technologies, etc. can be employed for the products and services with which the business model is extended. Moreover, the newly introduced products and services can leverage already built business model qualities.

The development of a platform to scale out from has substantial potential at the BoP. First, value creation in terms of the different dimensions of business models qualities—i.e., local capacity, embeddedness, native capability, and value proposition—is fairly generic, instead of product-specific, at the BoP. Second, the holistic nature of poverty suggests potential synergy between different products and services at the BoP, therefore stimulating the development of a platform of products and services. We elaborate below on both drivers of a platform, after which we discuss some limitations to scaling out.

Building a sustainable business model at the BoP often requires substantial upfront investments. Institutional voids, for example, call on companies to "take responsibility for a wide range of functions in order to do business effectively" (Khanna & Palepu, 1997: 41). Scaling out and the associated economies of scope can justify these great costs. By diversifying and taking on new activities, a firm can further capitalize on the local capacity, embeddedness, native capability, and value proposition that it built, and spread investment costs over multiple product lines. In fact, all this is quite possible at the BoP since these values usually generate externalities that are generic in nature and go beyond a specific product line or specific community issue. For example, a diversified firm can leverage the brand name and reputation[36], management and human capital development programs (e.g., schools and hospitals), internal labor market, and relationships with government officials that it has built, in multiple product lines and take advantage of these in areas such as the product market, capital market, contract enforcement, labor market, and government regulations (Khanna & Palepu, 1997).

Escaping from poverty is not a one-dimensional challenge, it requires a whole set of holistic measures. Scaling out is therefore a way to augment a firm's impact (Uvin et al., 2000). People at the BoP can benefit from additional products and services, which together can address more causes of poverty and tackle them in a more holistic manner. Hence, there is potential synergy between different products and services. By building upon the same business model and business model qualities, a firm can develop a more holistic set of reinforcing products and services, which have a greater potential of helping people climb out of poverty. The subsequent externalities will exceed individual products and services. In sum, the holistic nature of poverty enhances the potential synergetic value between different products and services. In addition to the holistic nature of poverty, the

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[36] "The business media in India, for example, abound with advertisements that promote group identity rather than emphasize the products or services of individual companies within a group" (Khanna & Palepu, 1997: 42).

potential synergy between different products and services depends on the number of products and services that are related to a firm's existing product line, i.e., this also depends on the breadth of a product family and the potential for derivative and complementary products and services (Meyer et al., 1997).

Although the development of a platform to scale out from has substantial potential at the BoP, there will remain industry differences in the potential breadth of the product family. Moreover, a focus on those activities in which the firm excels, remains important (cf. Uvin et al., 2000). In fact, specialization can be important as innovation at the BoP often occurs in narrow fields of specialization and it enables firms to become true experts in their field (Prahalad, 2006a,b). Furthermore, building a BoP business is generally a demanding endeavor—e.g., because of the potential need to experiment with multiple business models (Chesbrough et al., 2006; Hart, 2005). Therefore, a firm with a lack of focus risks spreading its resources too thin (Seelos & Mair, 2007).

61. Flexibility and/or robustness

Characteristic for the BoP are its diversity in consumers, producers, and infrastructure (Dawar & Chattopadhyay, 2002), the high changeability of market conditions (Hoskisson et al., 2000; Jenkins & Thomas, 2002), the large differences between rural and urban areas, and the uncertainties from regularly changing business regulations, limited law enforcement, scarcity of market data, and opaque power and loyalty structures (Arnold & Quelch, 1998; Globerman & Shapiro, 2003). Differences within the business environment from one context to another and from one moment in time to another may challenge firms' business models and possibly change their appropriateness from one context/moment to another (Uhlenbruck et al., 2003; Wright et al., 2005). For example, a firm's marketing approach or employee recruitment strategy, while appropriate in one culture, may be inappropriate in another. Therefore, scalability requires a business model to be able to function in many different settings and conditions. This is possible if the business model is either robust, flexible, or a combination of the two. More specifically, for a business model to be able to deal with the environmental uncertainty and heterogeneity at the BoP it must be flexible—i.e., be able to adapt to contextual and temporal differences—and/or be robust—i.e., be resistant to contextual and temporal differences by means of an intrinsically stable systemic whole (cf. Zajac, Kraatz, & Bresser, 2000). Chapters 3 and 4 provide a more elaborate discussion of the notions of flexibility and robustness (see for example paragraph 4.2.3).

A lack of robustness and flexibility would make it difficult to scale up a business model to other geographic areas, and for a firm to produce and market its products and services in dissimilar circumstances. A business model like this would be limited to a single homogeneous group of people and a specific geographic area. It would be prone to contextual change over time. By creating a robust or flexible business model, a firm ensures that it can operate in many settings and circumstances. To this end, the firm will have to find ways to deal with the fact that products and services are often used very differently in different cultures.

One strategy at the local level to parry the uncertainty and diversity at the BoP is to employ local entrepreneurs to adjust the business model to the local level (cf. business model quality 42). In this way, local entrepreneurs can shelter the firm from environmental heterogeneity and change. Although the firm itself would maintain the same business model independent of the specific context, different local entrepreneurs could adopt different business models. This kind of business model would thus combine local differentiation with global standards, scale, technology, and learning (Bartlett & Ghoshal, 1989; Doz, 1980).

In Chapters 3 and 4 we discuss in more detail the benefits of flexibility and robustness. In addition, in Chapter 3 we conceptually discuss how flexible and robust business models are created. This chapter also discusses the fact that a business model can become too flexible or too robust as well.

5.4 Analysis of validity: Case reviews

To explore the validity of the management support model that we developed in this study, we collected 42 case studies[37] of firms at the BoP. An overview of these case studies is given in Table 5.3. Most of them were written at business schools and were published in books or by respected organizations. Given the 'why' question and to a lesser extent the 'how' question in this study, the case study approach chosen here was appropriate (Yin, 2003).

A research assistant[38] and I, independently from each other, employed the support model on each case study. There where the assessment of the research assistant and myself differed, we discussed our reasons and experienced no problems reaching consensus. The

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[37] The majority of the case studies came from the following sources:

- The "Growing Inclusive Markets" initiative of UNDP: http://www.growinginclusivemarkets.org.
- World Resources Institute: http://www.nextbillion.net/resources/casestudies
- Prahalad (2005) / The William Davidson Institute at the University of Michigan: http://www.bus.umich.edu/BottomOfThePyramid/xMAP2003.htm
- World Business Council for Sustainable Development: http://www.wbcsd.org/includes/getTarget.asp?type=p&id=ODY&doOpen=1&ClickMenu=RightMenu

[38] The research assistant had a B.Sc. degree in international management and a M.Sc. degree in international development studies.

case reviews were entered into a computer database to facilitate an organized and structured analysis.

We reviewed the following aspects for each case study. First, some general information about the case study was entered into the computer database (see Table 5.3). Subsequently, the 22 business questions (Table 5.1) were answered using the framework of Chapter 3 (Figure 3.2). Next, the case study was evaluated on the business model qualities of paragraph 5.3 on 5-point Likert scales. To this end, a review protocol was established, which is available with the author upon request. Lastly, we conducted three tests for each case study to examine the validity of support model.

First, we examined if a business used strategies that do explain its performance but are not part of the way the business dealt with any of the 22 business questions. If this were the case and the additional explanation was indeed part of the firm's business model (and not the business environment's effect on performance), then the business questions of paragraph 5.2.1 were probably incomplete. Second, we examined if there were additional business model qualities that explained the business model's performance, in addition to the qualities discussed in paragraph 5.3. Third, we examined if there were explanations for the business's performance that contradicted that scoring high on one of the business model qualities produced a well performing business model at the BoP.

These analyses provided a rough test of the validity of the support model and allowed us to examine whether there was a need to expand the support model with additional business questions or with additional business model qualities. Furthermore, the case reviews allowed us to employ the support model and see it "in action", so that we could experience if its logic of answering business questions, using the framework of Chapter 3 to formulate the answers, and evaluating the business model using the business model qualities would indeed work.

We concluded that the case reviews did not call for an expansion of the business questions nor of the business model qualities. Neither did we find evidence for explanations of performance that contradicted the proposed support model. Moreover, we found the support model's methodological logic to be well applicable to the BoP case studies. In conclusion, these results support the validity of the support model as presented in this study.

Table 5.3: Case studies included in the validity test (number of cases = 42)

Case Study	Industry	Activities	Role of the BoP	Organization Type	Profitability	Origin	Location	Source	Year
ViaSebrae	ICT	Provides a platform for formal and informal small businesses to conduct e-commerce activities, including functionality for B2C, B2B, and intranet applications	Customer (as entrepreneurs)	Commercial joint venture between a private company and an NGO	After 2 years, still losing money each month. Lack of capital hampers the necessary exploitation of economies of scale.	Local	Brazil	WRI	2001
Cemex Patrimonio Hoy	Cement manufacturing	Provides building materials (including cement) and services (including financial credit and technical advice) for building and upgrading one's house	Consumer and employee (promoters in communities)	Program in Mexico of an MNC	"[T]oo early to use financial profits as a measure of success"	Local	Mexico	Prahalad (2005)	2003
Sekem	Agriculture	Provides national and international markets with value-added agriculture-based manufacturing in three fields: natural medicines (phyto-pharmaceuticals), organic foodstuffs, and naturally grown fabric products. Combines this with a holistic approach to employee and community development through social, cultural and environmental initiatives.	Employee and supplier	Large national holding company, including 7 companies (revenues of US$19 million in 2005) and a developmental orientated foundation	Profitable	Local	Egypt	UNDP	2007
NutriDelight / NutriStar	Food & Beverage / Health	Sells a powdered drink mix containing all the vital micronutrients to combat "hidden hunger"	Consumer, distributor, and producer. However, particularly to the middle class.	Part of a large MNC (Procter & Gamble)	NutriDelight in Philippines failed. Exited Venezuela with NutriStar. NutriStar fully national in Nicaragua.	Western	Philippines, Venezuela, and Nicaragua	WBCSD	2004

Case Study	Industry	Activities	Role of the BoP	Organization Type	Profitability	Origin	Location	Source	Year
Casas Bahia	Retail	Sells furniture, consumer electronics, and home appliances, mainly in favelas. Provides financial credit to customers.	Consumer and employee. However, one could argue that the majority is too wealthy to be considered part of the BoP.	Large company	Profitable. All stores average 25% to 30% gross margins.	Local	Brazil	Prahalad (2005)	2003
Thandi	Agriculture	Pooled together government land grants (South African land reform process) of black farm workers to establish high value fruit orchards and vineyards (also leases land). Farm workers put in their labor and become co-owners (receive wages, dividends, and the fair trade 'social premium'). Mainly exports the fruit and wine and has fair trade accreditation.	Employee / co-owner	Small private company	Thandi wine is referred to as "sustainable and a success", while Thandi fruit's performance is referred to as "more mixed"	Local	South Africa	Regoverning markets.org	2006
Amanz' abantu	Water services and sanitation	Provides water supply and sanitation services for peri-urban and rural populations through a community based approach while serving as contractor and/or project consultant	Consumer and producer (community base approach)	Small private company	Profitable	Local	South Africa (Eastern Cape)	UNDP	2006
Mogalakwena HP i-community	ICT	Provides ICT access to the poor and develops content targeted at local capacity building	User and employee	Part of MNC. Consists of ecosystem of partnerships of governmental bodies, private sector, NGOs, and civil society.	N/A	Western	South Africa (Limpopo Province)	WBCSD	2005

Case Study	Industry	Activities	Role of the BoP	Organization Type	Profitability	Origin	Location	Source	Year
Asociación Infocentros	ICT	Provides Internet and computer access through a franchise chain of infocenters, emphasizing locally-relevant content development and computer training services	Customer and perhaps franchisee	Not-for-profit	Start-up phase, "but it appears to be meeting or exceeding its targets" (self-sustainability)	Local	El Salvador	WRI	2001
District Telephone Cooperative (DTC) Tyczyn	Telecommu-nications	Provides telephone services (and Internet access) in rural areas using a community based approach	User and entrepreneur / owner	Small private company as umbrella organization for village-based cooperatives	N/A	Local	Poland	UNDP	2007
Money Express	Finance	Provides money transfer services, in particular for remittances from the informal sector	Customer and employee	Unit of an international company (Chaka Group)	N/A	Local	Senegal, all West African Monetary and Economic Union countries, as well as Ghana and South Africa	UNDP	2007
Afrique initiatives: Pésinet	Healthcare	Provides preventive healthcare services for children up to five years of age using local trained community members, an Intranet, and private doctors	Consumer and producer (community base approach)	Not-for-profit	Unprofitable by design, depends on subsidies	Western	Senegal (Saint Louis)	WRI	2003
Afrique initiatives: Saint Louis Net	Services / ICT	Provides services via a franchise network of telecenters, including job search services, safety-related weather forecasts and marine information for the fishing community, and e-government services	Customer	Small private company	Start-up phase	Western	Senegal (Saint Louis)	WRI	2003

Case Study	Industry	Activities	Role of the BoP	Organization Type	Profitability	Origin	Location	Source	Year
ITC e-Choupal	Agriculture	Procures soybeans. Assists suppliers with information centers (e-Choupals) that are linked to the Internet and offer farmers access to markets and market information.	Supplier and operator of the e-Choupals	Division of a large company	N/A	Local	India	Prahalad (2005)	2003
BMVSS / Jaipur Foot	Foot prosthetics	Provides hand-made artificial foot and lower limb prosthesis designed for developing country life style	Customer and employee	Not-for-profit	Only self-sustaining through cross-subsidization	Local	Mainly India but also various countries in Asia, Africa, and South America	Prahalad (2005)	2003
Rural Energy Services Companies (RESCOs)	Energy	Provides rural areas with access to low-cost electricity based on solar home systems and small low-voltage village micro-networks supplied by diesel generators. Sets up energy companies with local partners in rural areas that eventually will be owned and run by local actors, who are supported through training, development of appropriate equipment, and management support.	Customer and employee / entrepreneur	Small private enterprises set up by an MNC (EDF) in partnership with other MNC's and a western government agency	Unprofitable; expects to be profitable in 2008 but remains dependent on subsidies	Western	Mali (also in Morocco and South Africa but these are not discussed in the case study)	UNDP	2007
BRAC	Various	Organizes people in support groups and provides access to microcredit, an educational infrastructure, healthcare services, and markets. Has set up companies in several industries to provide employment opportunities.	Differs per activity. All possible roles included.	Not-for-profit	Some programs are self-financing while others are not	Local	Bangladesh	IESE / EABIS	2006

Case Study	Industry	Activities	Role of the BoP	Organization Type	Profitability	Origin	Location	Source	Year
Ma's Tropical Food Company	Agriculture	Purchases spices from farmers through a centralized procurement system. Provides training and technical assistance to farmers and ensures their supply of raw materials. Markets the spices mainly as a certified supplier, both internationally and locally to large enterprises.	Supplier and perhaps employee	Small family-owned private enterprise (annual sales were around €1 million in 2005). One of the leading spice processing enterprises in Sri Lanka.	Profitable	Local	Sri Lanka	Regoverning markets.org	2006
Grameen Telecom	Mobile telephony	Provides shared-access telephone services in rural areas, using local entrepreneurs	Customer and distributor (franchisee)	Not-for-profit	Profitable but with cross-subsidization	Local	Bangladesh	WRI	2001
ASAFE	Business development services	Provides women entrepreneurs with microfinance, hands-on business education, counseling, and e-commerce support to become self-sufficient and bring prosperity to their communities	Customer (as entrepreneurs), although not all can be considered BoP	NGO	Self-financing but initial investments were covered by subsidies	Local	Cameroon, with members and sister institutions throughout Africa	Schwab foundation for social entrepreneur-ship	2003
TARAhaat	ICT	Provides Internet and computer access through a network of franchised village Internet centers to rural and peri-urban regions. Emphasizes locally-relevant content development.	Customer and perhaps franchisee	Commercial enterprise founded by an NGO	N/A In pilot stage.	Local	India	WRI	2001
PuR	Drinking water	Provides access to clean drinking water through water treatment directly in people's homes	Consumer	Multinational (Procter & Gamble) partnering with NGO's	Start phase. Heavy upfront investments. Not yet profitable everywhere but self-sustaining in some countries.	Western	Various countries, including Pakistan, Kenya, Uganda, Haiti, and the Dominican Republic	WBCSD	2006

Case Study	Industry	Activities	Role of the BoP	Organization Type	Profitability	Origin	Location	Source	Year
Initiative of Rabobank International	Finance / Agriculture	Provides commodity price risk insurances to farmers	Customer	Part of a division of a multinational cooperative (Rabobank International, Commodity Price Risk Management unit)	Start phase. Not yet profitable.	Western	Uganda, Tanzania, and Nicaragua	WBCSD	2004
E+Co	Energy / Finance	Provides seed capital coupled with training and support services to local entrepreneurs in the energy sector operating in rural and peri-urban areas with off-grid, sustainable, energy technologies	End-customer and local entrepreneur who runs the energy company	Not-for-profit	Profitable, earning between 5% and 8% gross returns. However, not self-sustaining as this excludes management fees and operating expenses, which have been funded through grants and contract fees.	Western	More than 20 countries on multiple continents	Prahalad (2005)	2003
Grameen Bank	Finance	Provides microcredit	Borrower (the very poor, including beggars) and employee	Large company, co-owned by the poor (94%) and the government	Profitable. In 2006, a profit of US$20 million (14,7% of revenues).	Local	Bangladesh	Stanford	2003
Honey Care Africa	Agriculture	Purchases honey from small rural farmers (who they train and provide with microcredit and tools). Markets it through retailers and other outlets in urban areas. Also exports as a fair trade product.	Supplier and end-consumer	Small private company	Profitable but also benefits from funding from international institutions and donors. Leading provider of honey to the Kenyan market.	Local	Kenya (and a 50 percent shareholder in Honey Care Tanzania)	Ivey	2007

Case Study	Industry	Activities	Role of the BoP	Organization Type	Profitability	Origin	Location	Source	Year
First Mile Solutions (FMS)	ICT	Provides telecommunication equipment and consulting services to other organizations that provide asynchronous Internet connectivity to rural and remote populations	End-user and possibly distributor	Small private company	Profitable	Western	India, Cambodia, Costa Rica, and Rwanda	WRI	2005
Aravind Eye Care System	Healthcare	Provides high-quality, low-cost eye care and eye surgery enabled by a deeply understood and standardized process. Consists of a chain of 5 hospitals and organizes community outreach programs such as eye camps.	Patient and employee	Not-for-profit	Profitable. More affluent customers cross-subsidize the poor patients. Surplus in 2001-2002 of 210.5 Rs. Million.	Local	India (State of Tamil Nadu)	Prahalad (2005)	2003
Aguas de Amazonas	Water services and sanitation	Provides water supply and sanitation services to the mega-city of Manaus, including its "informal settlements"	Consumer and producer (community base approach)	Subsidiary of a large MNC (Suez)	Pilot phase. "Very positive first results: 80% adhesion; 80% bill collection rate (compared to 54% average for the rest of Manaus)."	Western	Brazil (Manaus)	WBCSD	2003
Sulabh International	Sanitation	Installs household toilets in urban (slum) areas and maintains public pay-per-use toilets combined with value-added services such as bathing, laundry, and even education. Uses low-cost techniques that make the degrading cleaning practices of 'dry' latrines unnecessary, for which support toward alternate employment is offered. Trains masons to build low-cost toilets using locally available material.	Customer / user, employee, and distributor (masons)	Large national not-for-profit (revenues of US$32 million in 2005)	Profitable (15% surplus in 2005, i.e., US$5 million)	Local	India	UNDP	2007

Case Study	Industry	Activities	Role of the BoP	Organization Type	Profitability	Origin	Location	Source	Year
Veolia Water	Water services and sanitation	Provides water and sanitation services to "the illegal, outlying, underprivileged and unhealthy northern Moroccan suburbs"	Consumer	Part of a division of an MNC	N/A	Western	Morocco	WBCSD	2004
Coca Cola's Entrepreneurs Development Program	Soft drink	Helps new (micro) entrepreneurs enter the supply chain as distributors and helps them develop and grow their business through training and equipment provision	Distributor and consumer	Initiative by the Southern Africa subsidiary of a large MNC	Profitable	Western / Local	South Africa	WBCSD	2003
Express Taxi	Transport	Runs a franchise-based taxi business in urban areas. Provides the poor with access to financing to purchase a car. Trains them in customer service skills and attitude.	Franchise taxi driver	Large (second largest taxi operator in Indonesia) subsidiary of a large national private company (Rajawali Group)	Profitable	Local	Indonesia	UNDP	2007
Farmacias Similares	Healthcare	Sells generic medicines to the poor in urban areas through a retail chain (partly franchised), combined (for all but the smallest pharmacies) with a family doctor's office for primary healthcare consultations	Customer (increasingly not only BoP but also from the middle class)	Large international company (estimated revenues of $600 million in 2005). Partnership with a foundation as a foundation runs the family doctor's offices.	Profitable; estimated net income as % of revenue in 2005: 16,5%	Local	Largest drugstore chain in Mexico and expanded to 10 other Latin American countries	ECCH / Harvard Business Publishing	2007
Tsinghua Tongfang's Changfeng agricultural computer	ICT	Provides an affordable multi-functional computer to farmers with customized software applications pre-installed (agricultural programs, long distance education, and skill training programs)	Customer	Program of a large national publicly traded company	N/A	Local	China	UNDP	2007

Case Study	Industry	Activities	Role of the BoP	Organization Type	Profitability	Origin	Location	Source	Year
Thamel.com (TDC)	IT / Marketing & Development	Markets and develops IT solutions that facilitate transactions. To this end, it combines e-commerce, remittance, and business development services.	Customer (diaspora, small local businesses, and local consumers)	Small private company (revenues of 1.3 million US dollars)	Profitable	Local	Nepal	WRI	2005
NTADCL	Water services and sanitation	Provides water supply, sewerage system, and sanitation services to rural and urban households, including slum areas, and to the large local textile industry	Customer (households) and employee of customers (textile businesses)	Public – private partnership (small private company) between a financier of infrastructure projects, local government, and an exporters association	Start phase. Target is a 20 percent ROI.	Local	India (Tirupur municipal area)	UNDP	2007
HP Kuppam i-community	ICT	Provides ICT access and develops content targeted at local capacity building	User and employee	Part of MNC. Consists of ecosystem of partnerships of governmental bodies, private sector, NGOs, and civil society.	N/A	Western	India (Kuppam)	WBCSD	2005
OPCION/Aj Ticonel	Agriculture	OPCION provides existing formal and mainly informal organizations or groups of small farmers of non-traditional vegetable products with support (e.g., financial credit, training, technology transfer, production planning, and product development). Aj Ticonel markets and distributes their produce at both national and particularly international level.	Supplier	Alliance between an NGO and a private company-training school	N/A	Local	Guatemala	Regoverning markets.org	2006

Case Study	Industry	Activities	Role of the BoP	Organization Type	Profitability	Origin	Location	Source	Year
Project Shakti by Hindustan Lever Ltd.	Fast moving consumer goods	Assists rural, female self-help groups with training and access microcredit to purchase the company's products, which they then sell in their villages	Consumer and distributor	Project of a subsidiary of a large MNC (Unilever)	N/A	Western / Local	India	IMD / CasePlace	2006
HealthStore Foundation	Healthcare	Provides the poor with health care products and conducts diagnostic services	Customer	Not-for-profit with for-profit franchisees	Profitable franchisees but headquarters depends on donors and procurement depends on not-for-profit status of headquarters	Local	Kenya	WRI	2005
Celtel	Mobile telephony	Provides access to mobile telephone services based on shared-access, prepaid cards, and local distribution. Developed a mobile banking system (Celpay).	Customer, employee, and distributor	Congolese subsidiary of an MNC (Celtel)	Profitable	Western	Democratic Republic of the Congo (Celtel has subsidiaries in many African countries)	UNDP	2007

5.4.1 Limitations

Several limitations of the management support model merit attention and call for future research. First, the unit of analysis is limited to a relatively autonomous business model that is directly involved at the BoP. If a firm has multiple lines of business and each has its own business model, analysis should take place at the level of each individual line of business. The support model and the business model qualities in particular, focus primarily on that part of the business model that is directed at the BoP. Therefore, the support model is unsuitable for businesses that are only indirectly involved with the BoP.

Second, the support model was developed as a qualitative tool. To use the support model as a quantitative instrument requires additional choices. Future research would have to pay more attention to how to make objective assessments on the different business model qualities and how to harness the opinions from different stakeholders in making such assessments. It is necessary to make a clear delineation of what constitutes a community in which a business operates before making an assessment of several of the business model qualities. Moreover, several of the business model qualities are multidimensional. Therefore, if one wanted to use them in a survey, one could consider splitting them up in multiple items.

Third, the business model qualities focus primarily on doing financially well and socially good than on doing environmentally good. In Chapter 4 we found that environmental performance at the BoP does not contribute to financial performance at present. Nevertheless, we could imagine that future research might want to expand the support model with more business model qualities in this direction.

5.5 Discussion

In this study we addressed the question why, from a business model point of view, some businesses are successful at the BoP whilst others fail. We argued that performance differences can be explained by how businesses create value, appropriate value, and ensure their future viability through dealing with certain business questions, and in particular the extent to which businesses develop certain qualities in these responses to the business questions. These ideas resulted in a management support model that offers managers and entrepreneurs a basis from which to develop profitable pro-poor business models at the BoP.

Theoretical contribution. This study extends BoP literature with a comprehensive understanding of why, from a strategic business model perspective, some firms succeed at the BoP whilst others fail. This understanding includes interplay between the business challenges with which firms at the BoP are confronted and how firms deal with them. In fact, we demonstrated that this stimulus–response model is mediated by the notion of business model qualities, i.e., certain qualities firms should look for in how they deal with their business challenges. By adding the notion of business model qualities, we augmented the model's explanatory and predictive power in comparison to a stimulus–response model. In this way we added to our understanding of performance at the BoP. Another, yet related, contribution of this study is that we integrated and advanced existing theory on performance at the BoP. We integrated existing theory by demonstrating the interplay between different explanations of firm success at the BoP (cf. Figure 5.4). In addition, we advanced existing theory that explains success at the BoP as we advanced the previously underdeveloped notions of embeddedness, scalability, and the market-based ecosystem. Similarly, we worked out the qualities of the value proposition, including an extension and elaboration of Prahalad's ideas on producer capacity. We borrowed from other literature, including network theory, corporate social responsibility, social capital, learning theory, anthropology, and development economics, to advance existing theory on performance at the BoP.

A way of brainstorming and a shift in mental maps. What the support model does *not* do is turn success into a recipe or prescribe how firms should act at the BoP. Rather, the support model serves as a basis for business model innovation and presents a systemic way to brainstorm about the "best" business model. It provides the questions to ask (paragraph 5.2.1), although a business may reformulate these more concretely for their own specific situation, and gives the framework to use when answering these questions (Chapter 3). It also suggests the qualities (paragraph 5.3) to search for in the answers to the questions. The support model was developed as a qualitative tool, which shifts people's mental maps towards belief systems, core assumptions, and frames of reference that better fit the BoP context. It remains the task of the assessors/managers/entrepreneurs to make their own judgments and to develop the business model they believe would be most appropriate for them and would generate the business model qualities that they consider most relevant for their specific business. In fact, not all business model qualities may be relevant for a business and moderators may be at work. Future research may want to examine best practices in terms of the strategies or business models that work best and perform best on the different business model qualities. The costs of different practices, and whether their benefits outweigh their costs, ought also to be taken into consideration. Furthermore, the process through which firms can search for the business model that works best for them merits attention. An example of research in this area is the BoP Protocol (Simanis et al., 2008).

Visualization. An additional aid in the application of the support model would be to generate a visualization of the analyses. In Chapter 3 we mentioned the use of system dynamics to visualize a business model. One could also visualize assessments on the business model qualities using Appendix 5.II. Or one could construct a "heat map" with the business questions on the horizontal axis and the business model qualities on the vertical. The color of each cell would represent the assessment on a business model quality with regard to the way in which the business deals with the business question in that column. Such a heat map would enable the identification of the strengths and weaknesses of the business model.

Interdependence between business model qualities. Not only is reinforcement between business model components important (cf. Chapter 3) but business model qualities can also reinforce each other, generating opportunities for businesses to incorporate self-reinforcing mechanisms in their business model. Application of the support model calls for consideration of the interdependence between business model qualities. Interaction and interdependence can be seen throughout the framework of business model qualities (Figure 5.5). Examples of this have been discussed throughout the text. These include the argument that integrating social, intellectual, and spiritual issues into a business model—i.e., embeddedness / sense of community—requires knowledge of the social, intellectual, and spiritual issues that play a role within the communities and this knowledge depends on continuous learning through native capability. We have seen that business model qualities may overlap, reinforce, but also obstruct each other, e.g. producer capacity (as part of the value proposition dimension) and local capacity building may overlap. Similarly, strategies targeted at learning may be more worthwhile if strategies targeted at fostering embeddedness are also in place. Furthermore, as one business model design decision may affect multiple business model qualities, changing the performance on one business model quality may be impossible without affecting others. Consequently, it may be necessary to reduce the performance on one business model quality in order to enhance another. An example of this would be if a firm were to choose to partner an organization that, on the one hand, enhances its embeddedness, whereas on the other, the partner organization only operates at a very limited scale, thus reducing the business model's scalability. Similarly, a firm may augment both the opportunities and the capabilities of the people at the BoP. However, if the capabilities do not enable people to take advantage of the increased opportunities, there would be a misfit between the two.

Limits of the business model qualities. It is important to note that at a certain point further progression on a business model quality may not always result in additional performance improvement. The limits of the business model qualities should therefore be considered when applying the support model. Future research may want to examine these limits. For example, it might, at some point, no longer be profitable for a business to enhance the local capacity if it results in such an increase in local wealth that people would outgrow the business. Businesses may take this into account and include laddering options in their business model to ensure they remain attractive (Letelier et al., 2003). Another example of this, which we previously discussed, is overembeddedness.

Several other areas may be fruitful for future research as well. Future research is to examine differences in the importance of the business questions and business model qualities. Also, several of the business questions could be split up into multiple business questions and some could be combined. Future research might want to examine whether it would be constructive to do so. However, we maintained a strong link with the classification of business challenges from Chapter 2, something that may be worthwhile as it ensures a strong link with the conceptualizations and vocabulary of practitioners. Furthermore, we need to acknowledge that as there are only a limited number of examples of flourishing businesses at the BoP, it might be fitting to place some reservations on the claims made in this study. Therefore, the section on business model qualities should be read as a set of recommendations based on limited qualitative evidence. Future research is to validate these recommendations further, develop them in more detail, and examine them with regard to the extent to which these recommendations are contextual.

In conclusion, this study contributes to the understanding of competitive advantage of firms at the BoP. We used this knowledge to propose a management support model that facilitates the development of profitable pro-poor business models at the BoP. We hope that future research will further validate this model by, for example, employing it in practice. Doing so will help deepen our understanding of business models that not only do financially well but also lift people out of poverty.

Appendix 5.I: From business challenges to business questions

The exercise in which we reformulate the elicited business challenges of Chapter 2 into basic business questions is presented in this Appendix. The business challenges were elicited in Chapter 2 using an open question in a survey. As a result, they capture a wide range of business challenges, impose western cognitive maps on managers as less as possible, and tap into executives' natural language (Cowan, 1990).

The left column provides an overview of the elicited business challenges. In the column in the middle, we reformulate the business challenge into business questions. This resulted in 22 basic business questions as presented in Table 5.1. The numbers in the column on the right refer to the numbers of the business questions in Table 5.1.

Business challenges	Business questions	Number in Table 5.1
Market position development & Competition		
Develop market position (marketing & sales)	How do we ensure that there is demand for our product/service?	15
	How do we scale up or replicate?	17
Develop a strategic plan to beat competition	How do we differentiate ourselves from competitors and create competitive advantage?	18
Enhance the proposition with value that meets customers needs	Do we have the right product/service to offer given the needs?	14
	How do we find improvement opportunities for our business model?	6
Obtain market intelligence	Do we understand the real needs of the markets?	14
	How do we measure success?	7
	How do we monitor social and environmental impact?	7/8
BoP as a strategic challenge		
Deal with the limited purchasing power of customers	How do we ensure that our customers can afford our product/service? [including price model]	16
Educate consumers/customers	How do we ensure customers know the benefits of our product/service?	15
	How do we ensure customers know how to best use our product/service?	15
Change and overcome current mindsets	How do we shift mindsets?	20
Collect revenues	How are revenues collected throughout the value chain?	11

Business challenges	Business questions	Number in Table 5.1
Deal with continuously changing circumstances	How do we deal with diverse and changing circumstances?	21
Internal organization/management		
Develop/educate personnel	How do we ensure we have the desired resources and capabilities?	2/4
Attract and retain personnel	How do we ensure we have the desired resources and capabilities?	2/4
	- How do we attract and retain personnel?	2
	- How do we build and retain the desired capabilities?	2
Develop internal organization	How do we organize our internal organization? [i.e., governance structure: coordination mechanisms, monitoring mechanisms, and culture]	5
Improve business acumen	How do we ensure the desired management skills internally?	3
BoP and profitability		
Get costs as low as possible	How do we get the costs as low as possible?	16
Operate financially sustainable	How do we ensure financial sustainability?	18
Maximize profitability	How do we appropriate rents?	11[39]
Obtain financial resources		
Obtain financial resources	How do we finance the investment?	1
Building BoP ecosystem		
Develop the appropriate distribution/sales network of product/service delivery	How do we reach our customers and the customers further downstream? [i.e., the physical delivery of products/services]	10
Improve functioning of all chains in the value chain	How can we stimulate related economic activities downstream?	12
	How do we organize and coordinate the value chain?	9
	How do we ensure social and environmental responsibility throughout the entire value chain?	8

[39] Nonetheless, value appropriation is part of each business question since for each question one analyses how the answer to that question contributes to value creation, value appropriation, and future viability.

Business challenges	Business questions	Number in Table 5.1
Build private - private partnerships	How do we select and build the desired partnerships?	19
Develop the network of reliable suppliers	How do we obtain the desired inputs? [i.e., resources, capabilities, competences, and knowledge; excluding human resources]	4
	How do we improve the activities upstream?	13
Build public - private partnerships	How do we select and build the desired partnerships?	19
Production		
Produce in the desired quantities and with the desired quality	How do we scale up or replicate?	17
	How do we ensure we have the desired resources and capabilities?	2/4
	How do we obtain the desired inputs? [i.e., resources, capabilities, competences, and knowledge; excluding human resources]	4
Obtain inputs against a good price	How do we obtain the desired inputs? [i.e., resources, capabilities, competences, and knowledge; excluding human resources]	4
Obtain production equipment	How do we obtain the desired inputs? [i.e., resources, capabilities, competences, and knowledge; excluding human resources]	4
Business domain expansion		
Innovate new products and technologies	How do we find improvement opportunities for our business model?	6
Diversify into new product-market segments	How do we scale up or replicate?	17
Expand to new regions	How do we scale up or replicate?	17
External corporate governance		
Comply with and navigate through regulations and certification	How do we deal with the government, regulations, and certification issues?	22
Operate environmentally sustainable	How do we ensure a positive environmental impact?	8

Appendix 5.II: Making an assessment of the business model qualities

Value proposition

Needs fulfillment	none	extensive
	Inaccessible for consumers	**Accessible for consumers**
Affordability	unaffordable	affordable
Financial accessibility	inaccessible	accessible
Usability (skills)	difficult/complex	easy/simple
Usability (hostile environment)	difficult	easy
Physical accessibility	inaccessible	accessible
	Negative social contribution	**Positive social contribution**
Contribution to living conditions	deterioration	improvement
Aspirational capacity	reduction	increase
Social comfortability	uncomfortable	comfortable
	Deterioration of producer capacity	**Improvement of producer capacity**
Sales market access	deterioration	improvement
Procurement market access	deterioration	improvement
Market power	deterioration	improvement
Distribution backbone access	deterioration	improvement
Vibrant market-based ecosystem access	deterioration	improvement
Information access	deterioration	improvement
Products/services quality	deterioration	improvement
Productivity asset employment	deterioration	improvement
Business skills	deterioration	improvement

LOCAL CAPACITY BUILDING

	Deterioration of human resources	Improvement of human resources
Community skills	deterioration	improvement
Structural social capital	deterioration	improvement
Cognitive social capital	deterioration	improvement
Community motivation	deterioration	improvement

	More impeding environment	More enabling environment
Infrastructure	deterioration	improvement
Business climate	deterioration	improvement
Legal framework	deterioration	improvement
Fiscal framework	deterioration	improvement
(Geo)Political system	deterioration	improvement
Physical geography	deterioration	improvement

	Deterioration of market-based ecosystem	Improvement of market-based ecosystem
Inclusive participation	decrease	increase
Symbiosis	decrease	increase
Transparency of transactions	decrease	increase
Contractual commitment	decrease	increase
Shared set of values and trust	decrease	increase
Shared standards	decrease	increase

EMBEDDEDNESS

	Weak sense of community	Strong sense of community
Holism of value creation	none	extensive
Reciprocity: Mutually beneficial	none	extensive
Reciprocity: Transaction equality	none	extensive
Trust	distrust	trust
Tie strength with community	nonexistent/weak	strong
Centrality	disconnected	orchestrator

Understanding of the firm's role in firm and community	different	same

	Alien actor in the community	Indigenousness actor in the community
Localization of value creation	none	extensive
Indigenousness to local culture, norms, and traditions	disruptive	indigenous
Indigenousness to local institutional framework	disruptive	indigenous
Inclusion of informal economy	none	extensive
Fly under the radar	none	extensive
Indigenousness to local entrepreneurship and skills	disruptive	indigenous
Indigenousness to assets in place	disruptive	indigenous

LEARNING THROUGH NATIVE CAPABILITY

	No learning	Extensive learning
Fanning out	none	extensive
Fanning in	none	extensive
Co-development	none	extensive
Dynamic fit between business model and products/services	none	extensive

SCALABILITY

	Minimal necessary inputs	Extensive amount of necessary inputs
Return on capital employed	low	high
Deskilled work	little	extensive
Assets (material) access	scarce	abundant
Span of effort	narrow	wide
Partnered with scaled organizations	none	extensive

	No ambition and applicability	Extensive ambition and applicability
Growth ambition and drive	none	extensive
Applicability at MoP and ToP	none	extensive
Potential to scale out	none	extensive
Flexibility and/or robustness	rigid/fragile	flexible/robust

CHAPTER 6: Conclusion

6.1 Introduction

In this dissertation we focused on some critical questions in Base-of-the-Pyramid (BoP) research, as formulated in Chapter 1. This research fitted in well with the increasing attention for private sector involvement in poverty alleviation and in solving world's social problems more generally. The focus was on the business models of for-profit firms that are built around the poor as producer (employer, supplier, distributor) and/or as consumer thereby creating more inclusive markets. The overall objective was to advance the existing scientific understanding of competitive advantage at the BoP and build an understanding of the business models through which for-profit firms can include those living in poverty (as producers as well as consumers) and in this way seize new business opportunities and advance the standard of living of the poor at the same time.

Each chapter focused on a different topic. In Chapter 4 we conceptually advanced the central postulate underlying BoP literature and empirically tested its validity. This chapter contributed to the validity of the BoP research stream and encouraged us to continue within this line of research. In Chapter 2 we examined the business challenges of firms at the BoP. In this dissertation we were particularly concerned with the business models that work for for-profit firms operating at the BoP. Therefore, in Chapter 3 we conceptualized the strategic business model concept and discussed what makes it a valuable unit of analysis. In Chapter 5 we examined why some business models at the BoP fail whilst others succeed. We built a management support model that enables analysis of business models of BoP firms and provides a basis for developing profitable pro-poor business models. Below we present the main conclusions and implications, and end with future research suggestions.

6.2 Conclusions and implications

6.2.1 Challenges ahead

Private sector businesses targeted at low-income people deal with it in the same way as when organizations like the World Bank and the IMF hand out development aid. A top-down approach, in which the firm or organization as an outsider, possibly from a developed country, projects its views on low-income markets is a recipe for failure. Successful business at the BoP calls for a shift in managers' and entrepreneurs' mental maps. Their belief systems, core assumptions, and frames of reference need to be revisited. This, in fact, is what we attempted to accomplish with this study, i.e., we sought to reduce the gap in mental maps and contribute to the development of belief systems, core assumptions, and frames of reference that better fit the BoP context, even though this context is highly heterogeneous.

As we addressed the shift in mental maps, we observed several tensions. Although often these tensions took the form of a trade-off off and a zero-sum game, we also noticed that managers and entrepreneurs were able to convert these apparent trade-offs into trade-ons, i.e., into a mutually reinforcing relationship instead of a relationship of obstruction. We would like to touch upon a few of these tensions here.

BoP as consumer ánd as producer. We observed tensions between different levels of analysis, some of which Figure 6.1 portrays. Each of these levels can be found in this dissertation, making it a multilevel study. BoP literature has been criticized for overemphasizing the BoP as consumer at the cost of insufficient attention to the BoP as producer. Such an approach may even take on a new form of imperialism if it means that products and services are pushed onto the poor (Hart, 2005).

Clearly, consumption and production are two sides of the same coin, as economic activity consists of a blend of the two. In fact, if a firm at the BoP is to address one side of economic activity it usually also needs to address the other. One reason is that the capacity to consume depends on people's capacity to produce. Similarly, if a firm's employees, distributors, and/or suppliers cannot purchase certain products and services or they face a poverty penalty (having to pay higher prices and/or receiving lower quality than high-income groups do), such problems on the consumption side of the economy will most likely also negatively affect their performance as producers. Producers' productivity may benefit from the consumption of certain products and services, and many products and services are simultaneously used for consumption and production. Indeed, selling productivity enhancing value propositions holds substantial value and potential for the BoP. Hence, the consumer side as well as the producer side of economic activity generates externalities for the other so that neither can do without the other. Therefore, given that the production side and the consumption side of the economy are often underdeveloped at the BoP and both depend on each other, firms would generally do best by addressing both the BoP as consumer and as producer.

Community, firm, ánd individuals. Chapter 5 demonstrated another tension, namely that between consideration for the firm (e.g., management of internal stakeholders, internal challenges, and firm performance), for individuals (e.g., the development of a value proposition that is valuable to individuals (and families)), and for the community as a whole. The latter is of particular importance in local capacity building, the development of embeddedness, and in learning, all of which occur within the context of a community. As each level requires consideration, a firm has to balance how much account it takes of its own interests, those of the community, and of individuals. More importantly, we have seen how these three levels can reinforce each other. Developing trade-ons between value creation at the level of the community, the individual, and the firm itself, is something that companies like Philips and Ford (with model T) were well known for in the first half of the 20^{th} century (particularly between the firm and the community). However, by now they may have forgotten how to develop these trade-ons. Nowadays firms like Tata are well known for their role in helping to build a better community in a way that also contributes to the firm's success.

Throughout the dissertation, and particularly in Chapter 5, there are various examples of the interplay and potential reinforcement between value creation at the level of the community, the individual, and the firm, leading to augmented value appropriation and future viability at each level. We saw that a firm's presence in a community enables it to build one-to-one relationships with individuals, which is very important at the BoP where personal relationships are dominant over formal contracts and trust is the "lingua franca" (Hart, 2005). We found that the positive social impact a firm had on individuals and the community augmented their performance (cf. Chapter 4). Furthermore, a firm's embeddedness benefits from being in touch with the non-economic issues that are important to a community. This facilitates learning about the real problems in the community and thus contributes to the development of propositions that better fit individuals' needs. Indeed, a firm's performance benefits from care for the community. For example, if a member of the (extended) family of an employee has problems, these problems may also affect the employee and his or her performance. Lastly, consideration for the firm and how it is managed helps improve the way the firm functions (including an improvement in the development of business model qualities) and thus creates value for communities and individuals as it enables the firm to effectively and efficiently serve more people at the BoP.

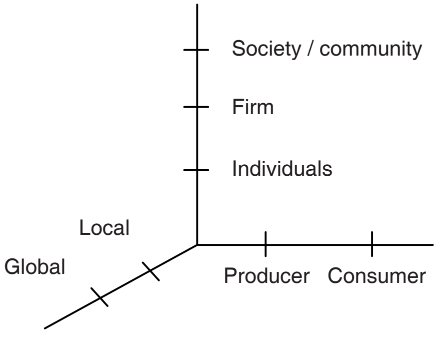


Figure 6.1: A multilevel approach: a necessity at the BoP

Local differentiation ánd global coordination. Communities at the BoP are extremely diverse and reflect many regional and cultural differences. If a company is to have a strong local presence in a community it has to be able to incorporate this diversity in its approach to the community. The BoP is characterized by its wide variety of needs, cultures, customs, market trends, infrastructure, regulations, technological development, competition, and so on. These differences necessitate local differentiation[40] of firms' business models and strategies. In fact, we demonstrated the need for local differentiation in Chapter 5 through the importance of local embeddedness, i.e., the development of a business model that is indigenous and leverages the local customs and conditions instead of enforcing a way of doing business that goes against local customs and circumstances. We also expressed the significance of learning through native capability, i.e., learning in concert with local actors. Similarly, local capacity building calls for local differentiation.

At the same time, efficiency calls for global coordination, which enables firms to optimally exploit economies of scale and scope. In paragraph 5.3.5 we advocated the importance of scale and demonstrated the importance of global coordination. Scale enables firms to be profitable while operating with a slim margin and to achieve the cost levels that would enable low-income people to do business with them. Scale can also justify potentially large investments, like those necessary to develop embeddedness and local capacity building. However, global coordination is necessary in order to be able to seize these benefits of scale.

The tension between local differentiation and global coordination has been extensively discussed by Bartlett and Ghoshal (1989). Although this tension varies

[40] It may also be necessary to differentiate between the stages of firm development (cf. Chapter 2). A firm may be in a different state of development at different locations.

between industries as the benefits of local differentiation and global coordination differ, at first sight, it seems to represent a trade-off as both entail different mindsets and requirements. Nonetheless, converting the tension into a trade-on holds great promise. The role of learning demonstrates the reinforcing relationship between the two. While learning depends on a local presence, as we explained in paragraph 5.3.4, worldwide learning calls on local businesses to share what they have learned so that different locations do not have to continuously reinvent the wheel but can adopt lessons learned elsewhere and adapt them to the local conditions in which they operate. The development of this interdependence in learning accelerates the cumulative effect of learning. This is particularly important at the BoP, as mental maps that fit this context may yet have to be developed and firms may experiment with multiple business models. Furthermore, local operations may benefit from global coordination in that other locations supply other forms of support than learning experiences. Another way that local differentiation and global coordination reinforce each other is from the reduced costs that are associated with global coordination. This may make the proposition more affordable, which would enable a firm to better serve low-income communities at a local level, thereby facilitating growth and advancing the advantages of global coordination.

In sum, the development of a trade-on between the two necessitates interdependence between the local and global level. This requires a strong presence at a local level combined with a robust and/or flexible business model at a global level. Incorporating centralization, formalization, and socialization mechanisms in the business model are key, while the amounts of local differentiation and global coordination may differ per area, function, and product (Bartlett & Ghoshal, 1989).

Costs and benefits. In Chapter 5 we advocated the development of various business model qualities, some of which may initially require substantial investments. Although the development of these qualities can provide firms with a competitive advantage at the BoP, it remains up to managers/entrepreneurs to indeed find profitable ways to develop and leverage these business model qualities. There is, indeed, a tension between costs and benefits. This tension is possibly even larger at the BoP than at the middle or top-of-the-pyramid. After all, affordability is crucial at the BoP, yet finding the right business model may require a lot of experimentation (Hart, 2005) and developing embeddedness and local capacity building can come at great costs as well. Cost management is thus crucial for the profitable exploitation of the business model qualities. One strategy that was suggested was partnering, particularly with non-traditional actors. This may spread costs over multiple actors or it may enable a firm to benefit from the local capacity and embeddedness that other actors have already built.

Formal ánd informal economy. Another tension we found is the one between the formal and the informal economy (e.g., see business model quality 45 in Chapter 5). Firms have to build the reciprocity, trust, and personal relationships that characterize the informal economy as well as leverage the efficiency, market access, and business acumen that characterize the formal economy. Both enclose complementary strengths and opportunities, and firms at the BoP generally need both. For example, dead capital and entrepreneurship provide opportunities arising from the informal economy, and actors from the informal economy hold knowledge relevant for BoP firms and are a "last mile" connection to the poor. The informal economy—including producer cooperatives, communal enterprises, barter exchanges, self-provisioning, and the love economy—is omnipresent at the BoP and therefore too important to ignore. Furthermore, institutions respected by low-income people are often informal. The informal economy, however, also has its disadvantages like as a lack of well-defined property rights, poor market access, inefficiency, and a poverty penalty. The formal economy, on the other hand, facilitates cooperation and enables growth in contrast to fragmented and small-scale enterprises. It sets standards, creates transparency, and reduces market imperfections and transaction costs. In spite of this, the formal economy is usually disconnected from low-income people and their lives.

The former examples demonstrate the complementarity between the strengths of the formal and informal economy. Therefore, firms should seek to leverage the opportunities within each in such a way that the two reinforce each other and negates the weaknesses of the other. In contrast, excluding either the formal or informal economy could make either into a tough competitor. For example, competitors from the informal economy could market counterfeit products and thus thwart the firm, while the efficiency and quality of competitors from the formal economy could be hard to beat.

The traditional ánd the modern. Indigenousness tells us that "new business models must not be disruptive to the cultures and lifestyles of local people" (Hart, 2005: 186) but instead build upon "the wealth of indigenous resources and alternatives" (Hart, 2005: 168). Nevertheless, low-income people may desire and admire certain modern values but be uncomfortable applying them because the ways to attain them are in conflict with traditional values. In Chapter 5 (page 182-183) we suggested that firms' business models should bridge the tensions between modern and traditional values, enabling the BoP to enjoy modern values without giving up on their traditional values (Letelier, Flores, & Spinosa, 2003). In fact, bridging practices build upon traditional values to help the BoP attain modern values that they aspire to but feel uncomfortable with and of which they don't understand how they fit into their lives. In doing so, these business models enable the BoP to access desired modern values while simultaneously strengthening traditional values.

Financial performance, social performance, ánd environmental performance. Although the idea that there is a trade-off between profit maximization, social value creation, and environmental value creation is not uncommon, the central postulate underlying BoP literature suggests that there is a trade-on between social and environmental value creation and firms' financial performance. In support of this, we find in Chapter 4 that creating social value is not adjacent but central to strategy at the BoP as social value creation adds to firms' financial performance. Reasons for this trade-on at the BoP include people's pressing social needs (making value propositions that do socially well highly valued), the importance of personal relationships, the social orientation of potential partners, and the potential of social value creation to increase the productivity of people at the BoP. Firms can benefit from all these. In contrast to social performance, we do not find evidence that firms succeed in augmenting their financial performance through environmental value creation. Nevertheless, we do find that the BoP context does value environmental performance by firms. In paragraph 6.2.4, we further summarize the conclusions we came to about the potential trade-on between the different types of performance.

Robustness and/or flexibility. We mentioned the importance of having a robust and flexible business model. Both enable a firm to deal with the heterogeneous and uncertain business environment of the BoP. To this end, firms search for reinforcement between business model components and develop linkage variety (cf. Chapter 3). In Chapter 3 we argued that there is also a trade-off between robustness and flexibility although we did not find empirical evidence for this in Chapter 4. However, even if there is a trade-off, robustness and flexibility may be complementary, which becomes evident if we differentiate between sub-systems of a firm's business model. For example, while a flexible design may be most appropriate for a firm's marketing approach, a robust design may be more appropriate for its distribution strategy. Similarly, while the operational level may be flexible, robustness and stability may exist at a more strategic level.

Other tensions between business model qualities can been found in Chapter 5. In fact, managing these tensions and developing fit between business model qualities will, to an important extent, determine a firm's performance. Therefore, future research is to examine the interplay between different business model qualities in more detail.

Below we summarize the main conclusions and implications of each chapter.

6.2.2 Business challenges at the BoP (Chapter 2)

The purpose of Chapter 2 was to discern the organizational problems and opportunities—together referred to as business challenges—experienced by firms focused at the BoP and examine how these business challenges differ between different stages of firm development (i.e., the organizational life cycle) and between different investment climates. This chapter contributes to the theory of organizational problems and opportunities by examining the accuracy of existing classifications in a context for which it has been argued that existing classifications are inaccurate. In addition to this, it informs BoP literature on the organizational problems and opportunities that exist for firms operating at the BoP. It thereby extends the theory on organizational problems and opportunities with a new classification for firms operating at the BoP. In cooperation with NGOs, development organizations, and micro finance institutions, we collected a unique dataset of 143 firms operating in BoP markets in a total of 105 countries. The World Bank provided data on the investment climate in different regions. By building on the survey data, text analysis, card sorting exercises with experts, and multidimensional scaling, we were able to develop a classification of business challenges at the BoP.

BoP-specificity of the business challenges. The results demonstrated that firms operating amongst low-income people face problems and opportunities unlike those faced in high-income markets. Business challenges with a large BoP-specific component include “change and overcome current mindsets”, “deal with the limited purchasing power of customers”, “contract enforcement / collect revenues”, and “operate environmentally sustainable”, “educate consumers/customers”, “get costs as low as possible”, “develop/ educate personnel”, and “improve functioning of all chains in the value chain”. Business initiatives at the BoP may therefore require innovative business models to manage these organizational problems and opportunities. Managers and entrepreneurs from the middle and top-of-the-pyramid may need to develop new mental maps, which we contribute to in Chapters 2 and 5.

Yet, at an abstract level, we noticed that there was a strong link between the business challenges facing firms targeting the BoP and the business challenges facing those operating in high-income markets. Hence, innovations made by firms at the BoP may also be relevant at the middle and the top-of-the-pyramid. Firms from the BoP could become the future competitors of incumbent firms at the middle and the top-of-the-pyramid.

Differences of business challenges across the stages of the organizational life cycle. The results suggested that while some business challenges vary across the stages of the organizational life cycle, others do not. “BoP and profitability” and “business domain expansion” were among the business challenges that did vary across the stages. A number of other business challenges varied only between specific stages and not across all stages of the organizational life cycle. Hence, there is a potential for firms to create an organizational learning cycle, as business challenges change in importance and/or as their content changes. In addition, the changes in the importances attached to business challenges may explain why some firms make the transition from one stage of development to another while others fail.

However, not all business challenges varied across the stages of the organizational life cycle, suggesting that stages of the organizational life cycle may be partly fluid rather than well-separated from each other, with business challenges overlapping in adjacent stages. Business challenges that did not vary across stages include “market position development & competition”, “internal organization/management”, and “external corporate governance”.

The results also demonstrated that some business challenges are more prevalent than others during all the stages of the organizational life cycle, suggesting the existence of a hierarchy of business challenges. In particular, “market position development & competition”, “BoP as a strategic challenge”, and “internal organization/management” are high in hierarchy, while “external corporate governance” and “business domain expansion” are low in it. Managers, therefore, need to pay attention not only to the absolute importances of business challenges within a stage of the organizational life cycle but also to how importances differ from one stage to another, as such differences may be more important to identify learning opportunities than business challenges’ absolute importance.

Differences of business challenges across different investment climates. The results suggested that the importances of the business challenges vary between firms that operate in regions that differ in their local infrastructure, financial system, level of rent predation, and openness to international trade. We found that a good infrastructure augments the attention for “market position development & competition” and “external corporate governance”, and reduces the importances of the business challenges “BoP as a strategic challenge”, “obtain financial resources”, and “production”. An improved financial system increases the importance of “production” and reduces the importance of the business challenge “business domain expansion”. Less rent predation is positively related with attention for “BoP as a strategic challenge” and “obtain financial resources”, yet negatively related to the importance of “internal organization/management”. Lastly, we found that fewer barriers to international trade enlarges the importance of the business challenge “internal organization/management”.

Hence, we found support for processes and conditions that produce business challenges at work at more than one level of analysis. We found support not only for internal contextual effects on business challenges’ importances (the organizational life cycle), but also for external contextual effects (the investment climate). Furthermore, these results imply that firms cannot automatically export successful business models from one location to another without taking into account differences in investment climate. This could also mean that firms build their business model around local conditions at the BoP and might therefore hinder investment climate reforms, as these reforms might alter the local circumstances on which firms have build their business models.

Business challenges’ threat/opportunity quotient and feasibility of action. Lastly, the results suggested that managers perceive business challenges as opportunities just as much as threats, and perceive adequate possibilities to manage the business challenges.

Combined with the necessity to develop new mental maps, this finding suggests a certain urgency to enter the BoP thoughtfully rather than to deliberate sensibly but endlessly over such action.

6.2.3 The strategic business model concept (Chapter 3)

The purpose of Chapter 3 was to reconceptualize how we describe and analyze businesses as a whole. Although the strategic business model concept is increasingly used, its theoretical development is not commensurate with its wide use by researchers and practitioners and remains under-conceptualized. In Chapter 3 we clarified and conceptually advanced the strategic business model concept, and established its value for our understanding of sustainable competitive advantage.

Defining the strategic business model. Based on a review of business model literature, (strategic) management theories, and concepts of complexity theory, we defined the strategic business model of a unit (e.g., a firm, business unit, partnership, or network) as the representation of how that unit conducts business so that it can sustain itself—i.e., how it creates value, appropriates value, and ensures its future viability, thereby explaining how the unit, in interaction with its environment, positions itself vis-à-vis competitors and develops a sustainable competitive advantage. The strategic business model of a unit exceeds beyond the boundaries of that unit as it also includes relationships with the external environment. The conceptual framework with its components and linkages that together make up the strategic business model is visualized in Figure 3.2.

Contribution to our understanding of sustainable competitive advantage. By conceptually advancing the strategic business model concept, we contributed to the understanding of sustainable competitive advantage. The conceptual framework integrated multiple schools of thought. We also demonstrated that analysis of a firm's value creation, value appropriation, and future viability may remain incomplete if a single theoretical lens is applied, as competitive advantage, which lies at the heart of strategic management, may depend on the complementarities and interaction between multiple schools of thought. Consequently, the multi-theoretical approach of the strategic business model concept enhanced our understanding of sustainable competitive advantage. We demonstrated this with illustrations and showed how to assess sustainable competitive advantage using the framework. We demonstrated that a business model's robustness depends on the fit between business model components that originate from different management theories. Similarly, we demonstrated that the flexibility of a business model depends on the business model's linkage that has the lowest level of variety, with the different linkages again originating from different management theories.

Strategic business model concept and the BoP. Its holistic, multi-theoretical approach makes the strategic business model the appropriate unit of analysis for businesses at the BoP. The reason for this is that the characteristics of low-income people and the challenging circumstances in which BoP businesses operate, generate business challenges specific to the BoP context (see Chapter 2). In response to this, success at the BoP requires innovative business approaches of which the competitive logic may significantly differ from that at other tiers of the pyramid. In fact, the BoP context may necessitate disruptive innovation of many aspects of firms' dominant competitive logic. Innovation in cost-structures, distribution strategy, value chain management, payment schemes, customer education, and human resources management may all be necessary. As the BoP requires holistic innovation, "it seems highly unlikely that a single theoretical perspective may be able to explain strategic decisions" in the BoP and "an integrated approach that brings together various theories may be more fruitful" (Wright, Filatotchev, Hoskisson, & Peng, 2005: 11). In Chapter 3 we demonstrated that the strategic business model concept brings together various management theories on the creation of competitive advantage, and enables a holistic analysis of a firm's dominant competitive logic.

6.2.4 The central postulate underlying BoP literature: "Doing well by doing good by means of the business model" (Chapter 4)

The purpose of Chapter 4 was to conceptually advance and empirically test the central, yet criticized and previously untested, postulate on which BoP literature rests. This postulate states that for-profit firms operating at the BoP develop business model qualities that not only generate profits but that their profit motive also drives them to create social and environmental value at the BoP, thereby creating sustainable business models. It has also been more popularly phrased as the "doing well by doing good by means of the business model" proposition. We conceptually advanced this proposition by explicating the relationship between "doing well by doing good" and "by means of the business model". More specifically, we argued that in the uncertain and heterogeneous business environment of the BoP, dynamic business model qualities (robustness and flexibility) contribute to maintaining external fit (i.e., fit between the business model and the external environment), which in turn augments financial, social, and environmental performance.

The analysis is based on survey data of 143 firms operating in BoP markets across the globe. Collectively, the results supported the central postulate underlying BoP literature, with the exception of the relationship between environmental performance and financial performance. The study demonstrated the specificity of the BoP context for the interplay between social, environmental, and financial performance. It thereby provided corporate social responsibility literature with information, to enable further theory building, on the role corporate social responsibility plays under different conditions. Furthermore, Chapter 4 contributed to emerging dynamic capabilities literature by empirically testing robustness as a dynamic capability. The results led us to formulate the following four conclusions and implications.

Robust versus flexible business models. The results demonstrated that robustness of a business model has a larger total effect on social performance than flexibility does. This suggests that it may be more effective for firms at the BoP to develop robust business models rather than to rely on flexibility to deal with the uncertain and heterogeneous business environment of the BoP. The fragmented, diverse, and uncertain BoP business environment may not reward high responsiveness to change (i.e., a flexible business model) as it inhibits the realization of economies of scale from such a business model, this in contrast to a business model that is able to buffer external changes (i.e., a robust business model).

What the external environment values in a BoP business. We find that the external fit of a business model—i.e., the fit between the business model and the external business environment—is positively related to a firm's financial, social, as well as environmental performance. This suggests that the BoP business environment values firms that address social and environmental issues and incorporate such value creation in their business model. Moreover, the external fit of the business model bounds economic, social, and environmental value creation together suggesting that the BoP values firms that develop blends of value beyond the economic.

Profit motive to do good socially. The results show that social value creation augments firms' financial performance. In fact, the relationship between social and financial performance is more substantial in the BoP context than the average effect reported in corporate social responsibility literature. Hence, firms' profit motive motivates firms to do well by doing good socially. This suggests that addressing social issues is not adjacent, but central, to strategy at the BoP. Furthermore, it suggests that for-profit private sector involvement at the BoP can contribute to poverty alleviation and inclusive markets—i.e., a private sector that includes the poor as producers and consumers and offers them opportunities of products, services, and entrepreneurship—can be built.

Profit motive to do good environmentally. Although the BoP appears to value environmental performance, firms seem unable to turn this preference into profits as the results suggest that environmental performance is unrelated to financial performance. Hence, there is no (short term) financial incentive for firms at the BoP to operate in an environmentally friendly manner. Therefore, additional incentives and monitoring mechanisms may be necessary. NGOs and governments may have an important role to play in this matter, as could self-regulation by firms.

6.2.5 A management support model for developing profitable pro-poor business models at the BoP (Chapter 5)

In Chapter 5 we built a management support model that offers managers and entrepreneurs a basis for developing profitable pro-poor business models at the BoP. We argued that a business model is a reflection of the way a business deals with its existing and prospective business challenges. More specifically, the business model consisted of those aspects of these responses that enable a firm to create value, appropriate value, and ensure its future viability. The reason for this is that business challenges define the sources of competitive advantage. Building upon this argument, we reformulated the elicited business challenges of Chapter 2 into business questions. Using the framework of Chapter 3 to formulate the answers to these business questions produced a methodology that enables analysis of business models at the BoP. Subsequently, we expanded this methodology with business model qualities that, if incorporated in a business model, drive success at the BoP and therefore provide criteria for the development of profitable pro-poor business models. We found support for the validity of the support model using 42 case studies of businesses at the BoP.

Management support model. Chapter 5 made a key managerial contribution in that it enables the analysis of business models targeted at the BoP and the assessment of their appropriateness within this context. The study offered the business questions to ask (see Table 5.1), the framework to use to answer these questions (see Figure 3.2), and the qualities to search for in the answers to the business questions (see Figure 5.5).

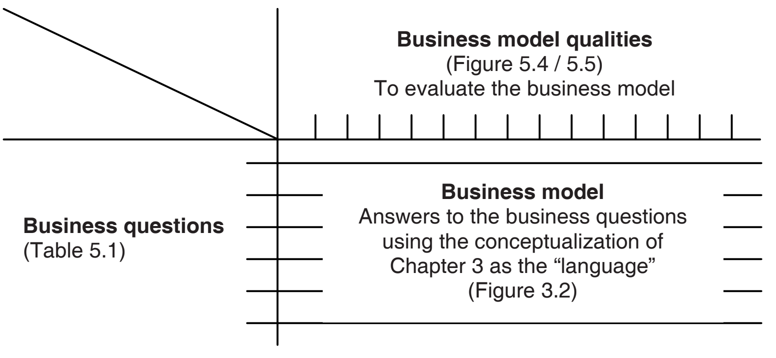


Figure 5.2: The management support model for developing profitable pro-poor business models at the BoP

Competitive advantage at the BoP. Chapter 5 extended our understanding of competitive advantage at the BoP. The study enhanced BoP literature with a comprehensive understanding of why, from a strategic business model perspective, some firms succeed at the BoP whilst others fail. It demonstrated that it is through the way businesses deal with certain business questions, which are grounded in the business challenges at the BoP, that firms create value, appropriate value, and ensure their future viability. Moreover, success at the BoP is particularly dependent on the extent to which businesses develop certain qualities in their responses to these business questions. The above figure demonstrates this logic. By adding the notion of business model qualities, we augmented the model's explanatory and predictive power in comparison to a stimulus–response model (i.e., the business model as a response to the stimuli of business challenges or business questions). We also provided a more elaborate discussion of each business model quality, thereby facilitating the development of new mental maps that better fit the BoP context.

Competitive advantage generating business model qualities. The study suggested that business models focused at the BoP should build their business model around qualities within five dimensions (see Figure 5.4: Today, Together, Tomorrow). These dimensions are fundamentally different in form and/or intensity at the BoP. Moreover, when the specifications of the five dimensions are seen together, it becomes obvious that this broad set of distinct and challenging requirements can only be tackled with a comprehensive set of (disruptive) innovations in a firm's competitive logic. This combination of requirements and the fact that they occur simultaneously sets the BoP context apart from higher-income markets and makes the business model the appropriate lens for analyzing businesses at the BoP. First, the firm's *value proposition*, which determines the BoP's *desire* to engage in business with the firm. To be valuable to the BoP, the value proposition needs to fulfill genuine needs and make a social contribution, as such needs are particularly prevalent at the BoP. It needs to augment BoP consumers' access to products and services thereby improving their capacity to consume, and/or enhance BoP producers' production capacity such as their access to markets, productivity, and access to information. Second, *local capacity building* through the firm's business model, which contributes to the BoP's *capacity* to engage in doing business. A supportive local capacity spurs local vibrancy, creates an atmosphere of industriousness, and augments people's ability to engage in economic activities. Local capacity can be built by the business model's contribution to local human resources, an enabling external business environment, and a market-based ecosystem with transparent transaction governance capacity. But desire and capacity alone are insufficient. It is also necessary that a business model is indigenous and builds upon the local customs and conditions instead of enforcing a way of doing business that goes against existing customs and circumstances. The extent to which a firm is truly present as an indigenous actor—instead of perceived as an external "alien" actor that the BoP has nothing to do with—determines whether or not the BoP can identify itself in the firm and feels comfortable doing business with it. Hence, third, the firm's *embeddedness* in local communities, which captures the extent to which the business is an integrated part of the lives of those at the BoP and the BoP perceives doing business with the firm to be an actual *possibility* for them. Fourth, the inclusion of *learning* in the business model, which captures the extent of learning by the firm through native capability and therefore its *capacity to improve* over time. Such learning occurs with the people at the BoP. It requires the ability to "systematically identify, explore, and integrate the views of stakeholders on the "fringe"" (Hart & Sharma, 2004: 7) and to co-discover and co-create new business opportunities and business models with marginalized groups and communities. Fifth and final, the *scalability* of the business model, which determines its *potential scale and scope*. This scalability depends on the quantity and availability of the necessary inputs as well as the ambition and applicability of the business model.

6.3 Directions for future research

This dissertation is only a first step in exploring private sector initiatives amongst the poor and opens up new avenues for future research. Since each chapter already provides directions for further research specific to the various chapters, we would like to restrict the discussion here to some general directions for future research on private sector involvement at the BoP.

First, the studies conducted in this dissertation would benefit from further research that critically examines, tests, and extends the developed propositions, models, and conclusions. Larger datasets so that control variables could be better tested and replication in specific countries and industries, could further improve our understanding of private sector initiatives at the BoP. Also, longitudinal research would allow further analysis of the causal claims made in this dissertation.

This dissertation did not analyze the specific business models that work at the BoP, but rather the characteristics—i.e., business model qualities—of the business models that do. We did not systematically determine best practices of business models that generate these characteristics, although Chapter 5 contains some examples of them. Future research may want to examine these best practices more systematically.

Further research is also called for with regard to the validity of management theories within the BoP context other than the ones discussed in this dissertation. For example, London & Hart (2004: 354) suggest that the transnational model's assumption that "all markets within a country are following a similar pattern of economic development, and that MNCs using the transnational model can effectively leverage capabilities in global efficiency, national responsiveness, and knowledge transfer to maximize economic benefits in all business environments" may be erroneous at the BoP. Other theories such as those on alliances, human resources, learning, and entrepreneurship may also require revision for the BoP context. In addition to this, it would be interesting to study BoP businesses through other lenses than the strategic business model concept as it would benefit our understanding of what makes a successful business at the BoP. For example, future research may study BoP businesses from the perspective of product design, the technologies used, personality characteristics of entrepreneurs, corporate venturing, and the external environment including the role of the government.

Social problems at the middle and the top-of-the-pyramid may benefit from the lessons learned at the BoP. Therefore future research may want to address questions such as how business model innovations at the BoP can be transferred to the middle and the top-of-the-pyramid? What determines the applicability of these innovations at the middle and the top-of-the-pyramid? And what are the potential bottlenecks in this kind of transfer of innovation? Furthermore, future research could examine the role of for-profit businesses for social issues other than that of poverty alleviation. For example, how businesses can be built within war zones, thereby contributing to the reconstruction of countries.

Previous research suggests that NGOs may be particularly valuable partners for the private sector at the BoP. For example, NGOs may already have an infrastructure in place as well as have built trust within communities, something from which firms may be able to benefit. In addition to this, NGOs may be particularly important during the start-up phase after which they can hand the business over to the private sector, exit, and search for the next opportunity (cf. Chesbrough, Ahern, Finn, & Guerraz, 2006). Furthermore, in Chapter 4 we suggested that NGOs may also have a particularly important role to play as actors who monitor private sector practices at the BoP. The trend at the BoP towards convergence of the public and private sphere of activity calls for more research on public-private partnerships, such as how to align interests and how to overcome cultural differences.

Another area for further research would be an assessment of the long-term contribution BoP initiatives make to poverty alleviation and an investigation of how to maximize this contribution. The many complex and indirect effects of private sector initiatives at the BoP add to the difficulty of such research. In fact, there is still little consensus on whether or not micro credit actually contributes to sustainable poverty alleviation (Karnani, 2007b).

As a final area for further research, we ask what world system would we like to develop towards? BoP literature has been criticized for its slant towards Western ideals of success and development, which particularly emphasize the formal money economy. And indeed, there is a strong need, not only to acknowledge the informal sector but also to integrate it into the business models. After all, the health of an economy consists not only of the formal money economy, it also includes the informal money economy, self-provisioning, household production, producer cooperatives, communal enterprises, not-for-profit organizations, barter exchanges, self-provisioning, volunteering, gift-giving, helping neighbors, and the love economy—which consists of work performed without pay for the family by the extended family (Hart, 2005; Henderson, 1999). Future research may want to examine how these different economies could be better combined with the formal money economy. Furthermore, future research may want to examine how the informal love-economy and the formal money economy co-evolve, i.e., how the development of the one influences the other and back.

Although only some aspects of private sector involvement at the base-of-the-pyramid were discussed in this dissertation, we hope that it has contributed to more insight and understanding in this area and has encouraged others to take up research in this interesting and growing research stream. Moreover, we hope to have contributed to the further success of the private sector in alleviating poverty and in solving the world's social problems more generally.

NEDERLANDSE SAMENVATTING (DUTCH SUMMARY)

Introductie

De *base-of-the-pyramid* (afgekort als BoP en ook bekend als *bottom-of-the-pyramid*) verwijst naar een socio-economische groep mensen die de 'onderklasse' van de samenleving vormen en vaak in de marginaliteit leven. De BoP wordt meestal gedefinieerd op basis van koopkrachtpariteit, d.w.z. als alle mensen die leven van een koopkrachtpariteit van $2 per dag of minder. De Wereldbank schat dat ongeveer de helft van de wereldbevolking tot deze groep behoort.

Diverse wetenschappers stellen dat de omvang, unieke eigenschappen en onderontwikkelde economische activiteit van de BoP de private sector kansen bieden voor groei, innovatie en winst (b.v. de Soto, 2000; Hart & Christensen, 2002; Prahalad & Hammond, 2002). We zien inderdaad dat ondernemingen de BoP steeds vaker beschouwen als een zakelijke kans en als een onderdeel van hun internationaliseringsstrategie. Het idee van private sector betrokkenheid bij de BoP heeft eveneens de aandacht gegrepen van toonaangevende internationale organisaties zoals het UNDP (b.v. UN Global Compact) en de Wereldbank (b.v. IFC), denktanks (b.v. WBCSD en NextBillion), NGO's, en eveneens van de politieke agenda, blijkend uit de rol die de private sector word toegeschreven met betrekking tot het behalen van de Millenium Development Goals (Pearce, 2005; Sachs, 2005a). Deze interesse van buiten de private sector kan grotendeels worden toebedeeld aan de opvatting dat fundamentele zakelijke vaardigheden – zoals het doen van marktonderzoek, waardeketenmanagement, risicobeoordeling, en het opschalen van bedrijven – niet alleen essentieel zijn voor zakelijk succes, maar ook voor de economische ontwikkeling van hen die in armoede leven (Prahalad & Hammond, 2002; Rangan, Quelch, Herrero, & Barton, 2007; World Bank, 2005). Rendabele zakelijke initiatieven stimuleren nieuwe investeringen, innovatie gericht op de BoP en opschaling. Zodoende kan de private sector werkgelegenheid creëren, lokale capaciteit opbouwen en de keus voor arme consumenten vergroten met innovatieve producten en diensten. De private sector speelt bijgevolg een aanvullende rol voor andere actoren zoals NGO's en overheidsinstellingen, welke vaak bekritiseerd worden om hun gebrek aan zakelijke vaardigheden en efficiëntie en hun bureaucratie en beperkte duurzaamheid.

Helaas is onderzoek op bedrijfsniveau naar de private sector in de BoP tot nu toe verkennend en grotendeels anekdotisch gebleven. Hoewel de private sector toenemende belangstelling heeft voor het opbouwen van bedrijven in de BoP is er hierdoor weinig kennis om deze plannen in goede banen te leiden. In deze dissertatie dragen we bij aan dergelijke kennis. In het bijzonder is het algemene doel van de dissertatie het inzicht geven in de bedrijfsmodellen waarmee commerciële bedrijven de armen kunnen betrekken (als producenten evenals consumenten) en zo nieuwe zakelijke kansen kunnen benutten en tegelijkertijd de levensstandaard van hen die in armoede leven kunnen verhogen. Met andere woorden, en vanuit perspectief van het strategisch bedrijfsmodel: waarom verschillen commerciële bedrijven in de base-of-the-pyramid in hun prestaties?

Het centrale postulaat dat ten grondslag ligt aan de BoP literatuur: "Doing well by doing good by means of the business model" (Hoofdstuk 4)

In Hoofdstuk 4 werken we het centrale postulaat waarop de BoP literatuur is gebaseerd conceptueel uit en toetsen we deze uitwerking empirisch. Dit postulaat stelt dat commerciële bedrijven in de BoP bedrijfsmodel-eigenschappen ontwikkelen die niet alleen winst genereren, maar dat het winststreven van deze bedrijven hen er tevens toe aanzet sociale en ecologische waarde te creëren in de BoP, en zodoende duurzame bedrijfsmodellen te creëren. Dit laat zien dat er een potentiële win-winsituatie bestaat in de BoP, namelijk dat zowel de armen als de private sector profiteren van een private sector die bedrijven creëert gericht op mensen met een laag inkomen. Dit centrale postulaat is ook populairder onder woorden gebracht als de "doing well by doing good by means of the business model" stelling.

Hoewel dit postulaat in de BoP onderzoeksstroming als geldig lijkt te worden verondersteld, is hij theoretisch slecht gedefinieerd en nog niet empirisch getoetst. Verschillende wetenschappers twijfelen zelfs aan de geldigheid van het centrale postulaat (b.v. Karnani, 2007a,b; Landrum, 2007; Walsh, Kress, & Beyerchen, 2005), en de verwerping van deze geldigheid zou de waarde van de BoP onderzoeksstroming ter discussie stellen. Als reactie hierop werken we een theoretisch raamwerk uit dat de relaties tussen eigenschappen van bedrijfsmodellen en verschillende types van bedrijfsprestaties expliciteert (zie Figuur 4.1). In samenwerking met NGO's, ontwikkelingsorganisaties en microfinancieringsinstellingen hebben we unieke data verzameld, bestaande uit 143 ondernemingen die actief zijn in BoP markten over de hele wereld. We testen het raamwerk met behulp van *structural equation modeling*.

De studie toonde aan hoe specifiek de BoP context is voor de interactie tussen sociale, ecologische en financiële prestaties, en informeerde zodoende de literatuur over maatschappelijk verantwoord ondernemen voor de verdere constructie van theorieën over de rol van maatschappelijk verantwoord ondernemen onder verschillende omstandigheden. Verder droeg Hoofdstuk 4 bij aan de opkomende literatuur betreffende dynamische vaardigheden met de empirische toetsing van robuustheid als een dynamische vaardigheid. Uit de resultaten formuleerden we de volgende conclusies en implicaties.

Robuuste versus flexibele bedrijfsmodellen. We definiëren twee manieren waarop bedrijven om kunnen gaan met het onzekere en heterogene bedrijfsomgeving van de BoP: een flexibel en een robuust bedrijfsmodel. Een flexibel bedrijfsmodel is in staat zich snel aan te passen aan een grote variëteit bedrijfsomgevingen (Grewal & Tansuhaj, 2001; Volberda, 1996). Een robuust bedrijfsmodel is een bedrijfsmodel dat "niet wordt bedreigd door veranderende omstandigheden" (Zajac, Kraatz, & Bresser, 2000: 434). Dit kan het gevolg zijn van het bezit van "bedrijfsmiddelen die een buffer vormen tegen externe druk voor verandering", wat ook is bepleit door Selznick (1957), of "de lokale omgeving [van het bedrijf] kan het beschermen tegen grotere veranderingen in de industrie" (Zajac e.a., 2000: 434). De resultaten laten zien dat de robuustheid van het bedrijfsmodel uiteindelijk een groter totaaleffect heeft op de sociale prestaties dan flexibiliteit. Dit laat zien dat het effectiever kan zijn voor bedrijven in de BoP om robuuste bedrijfsmodellen te ontwikkelen dan te vertrouwen op flexibiliteit om het onzekere en heterogene bedrijfsomgeving van de BoP het hoofd te bieden. Mogelijk beloont het gefragmenteerde, diverse en onzekere bedrijfsomgeving van de BoP een hoog aanpassingsvermogen niet (d.w.z. een flexibel bedrijfsmodel) omdat het bedrijfsmodel hierin geen schaalvoordeel kan realiseren, in tegenstelling tot een bedrijfsmodel dat externe veranderingen kan incasseren (d.w.z. een robuust bedrijfsmodel).

Waar de externe omgeving waarde aan hecht in een BoP onderneming. We zien dat de externe fit van een bedrijfsmodel – ofwel de fit tussen het bedrijfsmodel en de externe bedrijfsomgeving – positief gerelateerd is aan de financiële, sociale en milieuvriendelijke prestaties van een bedrijf. Dit impliceert dat de BoP bedrijfsomgeving bedrijven waardeert die sociale en ecologische kwesties behandelen en die zulke waardecreatie in hun bedrijfsmodel opnemen. Bovendien bundelt de externe fit van het bedrijfsmodel economische, sociale en ecologische waardecreatie, wat suggereert dat de BoP waarde hecht aan bedrijven die een mix van waarde creëren die economische waarde overstijgt.

Winststreven als motief voor sociaal goeddoen. De resultaten laten zien dat sociale waardecreatie de financiële prestaties van een bedrijf vergroot. De relatie tussen sociale en financiële prestaties is substantiëler in de BoP situatie dan het gemiddelde effect dat gemeld wordt in de literatuur op het gebied van maatschappelijk verantwoord ondernemen. Het winststreven van bedrijven motiveert dus om door sociaal goeddoen te presteren. Dit houdt in dat het behandelen van sociale kwesties niet slechts bijkomend is, maar centraal staat in de bedrijfsstrategie in de BoP. Bovendien geeft het weer dat betrokkenheid van de commerciële private sector bij de BoP kan bijdragen aan het tegengaan van armoede en dat *inclusive markets* – dat wil zeggen, een private sector die de armen betrekt als producenten en consumenten en producten, diensten en ondernemerschap bereikbaar voor hen maakt – gecreëerd kunnen worden.

Winststreven als motief voor ecologisch goeddoen. Hoewel de BoP ecologische prestaties lijkt te waarderen schijnen bedrijven niet in staat te zijn deze waardering in winst om te zetten, aangezien de resultaten suggereren dat ecologische prestaties niet gerelateerd zijn aan financiële prestaties. Daarom is er (op de korte termijn) geen financiële stimulans voor bedrijven in de BoP om milieuvriendelijk tewerk te gaan. Hiertoe zijn wellicht aanvullende stimulansen en monitoringmechanismen nodig. NGO's en overheden kunnen een belangrijke rol vervullen in deze kwestie, evenals bedrijven die de verantwoordelijkheid van zelfregulatie op zich nemen.

Als geheel ondersteunen de resultaten het centrale postulaat die ten grondslag ligt aan de BoP literatuur voor zover het sociale prestaties betreft, maar niet met betrekking tot ecologische prestaties. Hoofdstuk 4 bevestigt de geldigheid van de stroming van BoP onderzoek en moedigt ons aan door te gaan met deze lijn van onderzoek.

Het onderscheiden van de organisatieproblemen en kansen in de BoP: een classificatie en een onderzoek naar contextuele relaties (Hoofdstuk 2)

De BoP literatuur bepleit dat bedrijven die in de BoP actief zijn organisatieproblemen en kansen tegenkomen – tezamen bedrijfsuitdagingen genoemd – die anders zijn dan die welke men tegenkomt in economisch sterke markten. Deze zijn het resultaat van de bijzondere karakteristieken van de armen – zoals een sterke sociale oriëntatie, een laag opleidingsniveau, en een aanzienlijke heterogeniteit in mensen – en de complexe bedrijfsomgeving waarin bedrijven in de BoP verkeren – zoals geringe kapitaalmarkten, een gebrek aan duidelijk vastgestelde eigendomsrechten, en een gebrek aan een goede infrastructuur. Hoewel er enig anekdotisch materiaal is over de bedrijfsuitdagingen in de BoP, is een systematisch onderzoek nog niet voorhanden.

In Hoofdstuk 2 ontwikkelen we een empirisch afgeleide classificatie van bedrijfsuitdagingen voor BoP bedrijven en onderzoeken we hoe hun bedrijfsuitdagingen verschillen tussen de verschillende fases van bedrijfsontwikkeling (ook bekend als de organisatielevenscyclus) en tussen verschillende investeringsklimaten. In samenwerking met NGO's, ontwikkelingsorganisaties en microfinancieringsinstellingen hebben we enquêteonderzoek verricht en unieke data verkregen, bestaande uit 143 ondernemingen die actief zijn in base-of-the-pyramid markten over de hele wereld. Verder verschafte de Wereldbank data over het investeringsklimaat in verschillende regio's. Gebaseerd op de onderzoeksdata, tekstanalyse, kaart-sorteerexercities met experts, en meerdimensionele schaling stellen we een classificatie op van bedrijfsuitdagingen in de BoP (zie Tabel 2.5).

Specifiekheid van de BoP bij de bedrijfsuitdagingen. De resultaten geven weer dat bedrijven die actief zijn onder mensen met lage inkomens (minder dan $2 per dag) problemen en kansen tegenkomen die anders zijn dan die welke men tegenkomt in economisch sterke markten. Bedrijfsuitdagingen met een hoog BoP-specifiek component zijn “veranderen en overwinnen van *mindsets*”, “omgaan met de beperkte koopkracht van klanten”, “naleving van contract / inning van betalingen” en “milieuvriendelijk tewerk gaan”. “Onderwijzen van consumenten/klanten”, “kosten minimaliseren”, “ontwikkelen/ onderwijzen van medewerkers” en “verbeteren van het functioneren van alle schales in de waardeketen” zijn andere bedrijfsuitdagingen met een een hoog BoP-specifiek component. Derhalve vereist succesvol functioneren in de BoP mogelijk innovaties in het bedrijfsmodel, en managers en ondernemers uit de middle- en top-of-the-pyramid moeten wellicht nieuwe mentale modellen ontwikkelen om met de bedrijfsuitdagingen om te gaan.

Toch blijft er op een abstract niveau een sterke band tussen de bedrijfsuitdagingen in de BoP en de bedrijfsuitdagingen in economisch sterke markten. Zodoende kunnen innovaties door bedrijven in de BoP ook toepasselijk zijn voor de middle- en top-of-the-pyramid en kunnen bedrijven uit de BoP in de toekomst concurrenten worden van gevestigde bedrijven in de middle- en top-of-the-pyramid.

Verschillen in bedrijfsuitdagingen tussen de fases van de organisatielevenscyclus. De resultaten laten zien dat sommige bedrijfsuitdagingen variëren over de fases van de organisatielevenscyclus, maar andere niet. “BoP en winstgevendheid” en “bedrijfsdomein expansie” waren bedrijfsuitdagingen die varieerden over de fases, naast diverse andere bedrijfsuitdagingen die alleen varieerden tussen specifieke fases en niet over alle fases van de organisatielevenscyclus. Er bestaat dus de mogelijkheid voor bedrijven om een leercyclus binnen het bedrijf te creëren wanneer het belang van bedrijfsuitdagingen verandert en/of wanneer deze inhoudelijk veranderen. Bovendien kunnen veranderingen in het belang van ieder van de bedrijfsuitdagingen verklaren waarom sommige bedrijven de overgang van de ene ontwikkelingsfase naar de andere wel maken terwijl andere hierin falen.

Desalniettemin variëren niet alle bedrijfsuitdagingen tussen de fases van de organisatielevenscyclus, wat suggereert dat deze fases mogelijk gedeeltelijk in elkaar overvloeien in plaats van dat ze strikt gescheiden zijn, waarbij bedrijfsuitdagingen elkaar overlappen in aangrenzende fases. Bedrijfsuitdagingen die niet varieerden zijn “marktpositie ontwikkeling & competitie”, “interne organisatie/management” en “externe ondernemingsbestuur”.

De resultaten geven ook weer dat sommige bedrijfsuitdagingen vaker voorkomen dan andere in alle fases van de organisatielevenscyclus, wat aangeeft dat er een hiërarchie bestaat tussen de bedrijfsuitdagingen. Hoog in deze hiërarchie zijn de bedrijfsuitdagingen “marktpositie ontwikkeling & competitie”, “BoP als strategische uitdaging” en “interne organisatie/management", terwijl "extern ondernemingsbestuur" en "bedrijfsdomein expansie" laag in hiërarchie zijn. Daarom moeten managers niet alleen letten op het absolute belang van de bedrijfsuitdagingen binnen een fase van de organisatielevenscyclus, maar ook op hoe het belang verandert tussen twee fases, aangezien zulke veranderingen belangrijker kunnen zijn om leermogelijkheden te onderscheiden dan het absolute belang van bedrijfsuitdagingen.

Verschillen in bedrijfsuitdagingen tussen verschillende investeringsklimaten. De resultaten geven aan dat het belang van bedrijfsuitdagingen verschilt tussen bedrijven die actief zijn in regio's die verschillen in hun lokale infrastructuur, financiële systeem, mate van beroving van economische meerwaarde (b.v. kosten wegens omkoping, bureaucratie, of inspecties), en openheid ten aanzien van internationale handel. We vonden dat een betere lokale infrastructuur de aandacht vergroot voor "marktpositie ontwikkeling & competitie" en "extern ondernemingsbestuur", terwijl dit het belang reduceert van de bedrijfsuitdagingen "BoP als strategische uitdaging", "verkrijgen van financiering" en "productie". Een beter financieel systeem vergroot het belang van "productie" en reduceert het belang van de bedrijfsuitdaging "bedrijfsdomein expansie". Minder beroving van economische meerwaarde is positief gerelateerd aan aandacht voor "BoP als strategische uitdaging" en "verkrijgen van financiering", maar negatief gerelateerd aan het belang van "interne organisatie/management". Ten slotte vonden we dat minder barrières tot internationale handel het belang vergroot van de bedrijfsuitdaging "interne organisatie/management".

We vinden zo bevestiging voor het bestaan van bedrijfsuitdaging-beïnvloedende processen en omstandigheden op meerdere niveaus van analyse. We vinden niet alleen bewijs voor interne contextuele effecten op het belang van bedrijfsuitdagingen (de organisatielevenscyclus) maar ook voor externe contextuele effecten (het investeringsklimaat). Verder geven deze resultaten aan dat bedrijven niet automatisch succesvolle bedrijfsmodellen kunnen exporteren van de ene locatie naar de andere zonder rekening te houden met verschillen in investeringsklimaat. Dit kan ook betekenen dat bedrijven hun bedrijfsmodel creëren in het licht van de lokale omstandigheden van de BoP en zo tegenstanders worden van hervormingen in het investeringsklimaat, aangezien zulke hervormingen de lokale omstandigheden kunnen veranderen waarop zij hun bedrijfsmodel hebben gebaseerd.

Bedrijfsuitdagingen: bedreiging/kans quotiënt en haalbaarheid van uitvoering. Ten slotte geven de resultaten weer dat managers bedrijfsuitdagingen in gelijke mate als kansen en bedreigingen beschouwen, en afdoende mogelijkheden zien om de bedrijfsuitdagingen te managen. Samen met de noodzaak van het ontwikkelen van nieuwe mentale modellen suggereert deze bevinding een zekere urgentie om de BoP zorgvuldig te betreden in plaats van zinnig maar eindeloos te beraadslagen over de uitvoering ervan.

Het strategisch bedrijfsmodel (Hoofdstuk 3)

Omdat bedrijven die zich richten op de armen bedrijfsuitdagingen tegenkomen die specifiek voor de BoP zijn, “kan de fundamentele uitdaging er een zijn van innovaties in het bedrijfsmodel – loskomen van de gevestigde *mindsets*, systemen en kengetallen die de verbeeldingskracht van gevestigde bedrijven beperken” (Hart & London, 2005: 30). De BoP context kan inderdaad radicale innovatie noodzakelijk maken in vele aspecten van de dominante competitieve logica van bedrijven. Innovaties in kostenstructuren, distributiestrategie, waardeketenmanagement, betalingsregelingen, informatievoorziening voor klanten, en personeelsbeleid zijn mogelijk allemaal noodzakelijk. Aangezien de BoP zulke holistische innovaties vereist “lijkt het hoogst onwaarschijnlijk dat een enkel theoretisch perspectief strategische beslissingen kan verklaren” in de BoP en “een geïntegreerde aanpak die verschillende theorieën samenbrengt is wellicht vruchtbaarder” (Wright, Filatotchev, Hoskisson, & Peng, 2005: 11). Omdat het strategisch bedrijfsmodel concept een dergelijke holistische, multitheoretische aanpak betreft, welke nodig is voor bedrijven die de gehele logica van hoe zij zakendoen revalueren, is het redelijkerwijs de juiste analytische eenheid voor bedrijven in de BoP.

In Hoofdstuk 3 tonen we aan dat het analyseren van de waardecreatie en waardetoe-eigening van bedrijven onvolledig kan blijven wanneer slechts vanuit één lens of leerschool wordt gekeken, aangezien concurrentievoordeel afhankelijk kan zijn van de complementariteit en interactie tussen meerdere leerscholen. Om ons inzicht in concurrentievoordeel te vergroten herconceptualiseren we hoe we bedrijven in hun geheel beschrijven en analyseren door het strategisch bedrijfsmodel concept te verduidelijken en conceptueel uit te werken. Hoofdstuk 3 is conceptueel van aard en is gegrondvest op een bespreking van de literatuur betreffende bedrijfsmodellen, (strategisch) management-theorieën en concepten uit de complexiteitstheorie (met name *multiscale analysis* en het onderscheid tussen componenten en verbindingen).

D*efiniëren van het strategisch bedrijfsmodel.* Het strategisch bedrijfsmodel van een eenheid (b.v. een bedrijf, business unit, partnership of netwerk) is de representatie van hoe die eenheid zakendoet zodat deze zichzelf in stand kan houden, oftewel hoe deze eenheid waarde creëert, waarde toe-eigent en zich van zijn toekomstige levensvatbaarheid verzekerd, waarmee wordt verklaard hoe de eenheid zichzelf, in interactie met zijn omgeving, ten opzichte van concurrenten positioneert en een houdbaar concurrentie-voordeel ontwikkelt. Het strategisch bedrijfsmodel van een eenheid strekt voorbij de grenzen van die eenheid en omvat ook relaties met de externe omgeving. Het conceptuele raamwerk met zijn componenten en verbindingen die samen het strategisch bedrijfsmodel vormen is weergegeven in Figuur 3.2. Het bestaat uit componenten en verbindingen die voortkomen uit verschillende leerscholen betreffende concurrentievoordeel. De architectuur van het model bestaat uit emergente componenten binnen twee schalen, waarvan de niveaus worden onderscheiden op basis van twee hiërarchieën: (1) een tijdschaal waarvan de niveaus de tijdssequentie van *input-process-output* ordenen en (2) een analytische schaal waarvan de niveaus de coördinatie tussen componenten en modelvernieuwing ordenen. Verbindingen koppelen de componenten van het bedrijfsmodel aan elkaar en koppelen ook de architectuur aan diens waardeketen en wijdere omgeving.

Bijdrage aan ons inzicht in houdbaar concurrentievoordeel. Door de vordering in het begrip van het strategisch bedrijfsmodel concept en door deze conceptueel uit te werken draagt Hoofdstuk 3 bij aan het inzicht in houdbaar concurrentievoordeel. Het conceptuele raamwerk integreert meerdere leerscholen. Zo demonstreren we in Hoofdstuk 3 dat de analyse van de waardecreatie, waardetoe-eigening en toekomstige levensvatbaarheid van een bedrijf onvolledig kan blijven wanneer slechts vanuit één lens wordt gekeken omdat concurrentievoordeel, dat tot de kern van strategisch management behoort, afhankelijk kan zijn van de complementariteit en interactie tussen meerdere leerscholen. Hierdoor vergroot de multitheoretische benadering van het strategisch bedrijfsmodel ons inzicht in houdbaar concurrentievoordeel van bedrijven. Dit demonstreren we met behulp van illustraties. Evenzo demonstreren we hoe houdbaar concurrentievoordeel met behulp van het raamwerk kan worden geanalyseerd. We laten zien dat de robuustheid van een bedrijfsmodel afhankelijk is van de onderlinge fit tussen componenten, welke uit verschillende managementtheorieën voortkomen. Ook motiveren we dat de flexibiliteit van een bedrijfsmodel afhankelijk is van diens verbinding met de laagste variëteit, waarbij de verschillende verbindingen wederom voortkomen uit verschillende managementtheorieën. Ten laatste argumenteren we dat een nadruk op slechts één niveau of één theorie binnen de conceptualisatie een onvolledig beeld geeft van concurrentievoordeel omdat meerdere niveaus/theorieën, veelal in interactie met elkaar, aan concurrentievoordeel bijdragen, terwijl de bijdrage van één niveau mogelijk niet afleidbaar is van andere niveaus – onder andere door emergentie en equifinaliteit.

Een management ondersteuningsmodel ter ontwikkeling van winstgevende 'pro-arme' bedrijfsmodellen (Hoofdstuk 5)

Hoewel de private sector toenemende belangstelling heeft voor het opbouwen van bedrijven in de BoP is er weinig kennis om deze plannen van de private sector in goede banen te leiden. Daarom ontwikkelen we in Hoofdstuk 5 een management ondersteuningsmodel dat managers en ondernemers een basis biedt voor het ontwikkelen van winstgevende 'pro-arme' bedrijfsmodellen. Verder behandelt Hoofdstuk 5 de vraag waarom sommige bedrijfsmodellen in de BoP falen terwijl andere slagen. Het ondersteuningsmodel bouwt voort op de kennis van de voorgaande hoofdstukken. We stellen de geldigheid van het ondersteuningsmodel vast aan de hand van 42 casestudy's van BoP bedrijven.

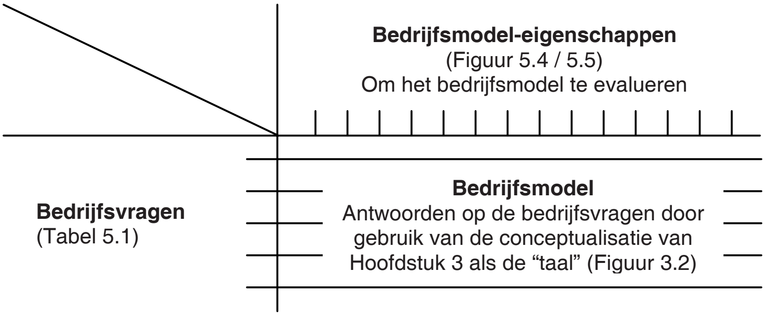
Management ondersteuningsmodel. We redeneren dat een bedrijfsmodel een weerspiegeling is van de manier waarop een bedrijf reageert op bestaande en potentiële bedrijfsuitdagingen. Om precies te zijn bestaat het bedrijfsmodel uit die aspecten van deze reacties die een bedrijf in staat stellen tot waardecreatie, waardetoe-eigening en het garanderen van de toekomstige levensvatbaarheid. De reden hiervoor is dat de bedrijfsuitdagingen de bronnen van concurrentievoordeel bepalen. Verder bouwend op dit argument herformuleren we de onderscheiden bedrijfsuitdagingen van Hoofdstuk 2 tot bedrijfsvragen. In combinatie met het raamwerk van Hoofdstuk 3 (Figuur 3.2) om de antwoorden op deze bedrijfsvragen te formuleren, resulteert dit in een methodologie die analyse van bedrijfsmodellen in de BoP mogelijk maakt. Aangezien het bedrijfsmodel de representatie is van de manier waarop een bedrijf waardecreatie, waardetoe-eigening en het garanderen van de toekomstige levensvatbaarheid verwezenlijkt, moet men iedere bedrijfsvraag beantwoorden in termen van hoe het bedrijf waarde creëert, waarde toe-eigent en zich van zijn toekomstige levensvatbaarheid verzekerd door de manier waarop het omgaat met deze bedrijfsvraag. De bedrijfsvragen bevinden zich in Tabel 5.1. Aangezien de bedrijfsuitdagingen, waarin de bedrijfsvragen gegrondvest zijn, voortkomen uit bedrijven die gericht zijn op de BoP is de methodologie specifiek voor de BoP.

Bedrijfsmodel-eigenschappen die concurrentievoordeel opleveren. We breiden deze methodologie uit met bedrijfsmodel-eigenschappen die succes in de BoP aandrijven wanneer ze onderdeel van het bedrijfsmodel vormen. Deze bedrijfsmodel-eigenschappen reiken dus criteria of ankerpunten aan voor de ontwikkeling van winstgevende 'pro-arme' bedrijfsmodellen. Ten behoeve van de ontwikkeling van deze criteria behandelen we de vraag waarom sommige bedrijfsmodellen in de BoP falen terwijl andere slagen. We zien dat bedrijfsmodellen die gericht zijn op de BoP hun bedrijfsmodel moeten bouwen op eigenschappen binnen vijf dimensies (zie Figuur 5.4). Deze vijf dimensies hebben in de BoP een fundamenteel andere vorm en/of intensiteit dan in economisch sterke markten. Tevens wordt vanuit de specificatie van de vijf dimensies duidelijk dat het voldoen aan de diversiteit aan uitdagende eisen binnen deze dimensies gezamenlijk, enkel kan worden gerealiseerd middels een brede bundel van simultaane (disruptieve) innovaties in de competitieve logica van bedrijven. Dit plaatst de BoP context apart van mensen en markten hogerop in de socio-economische piramide en maakt het bedrijfsmodel de juiste lens voor het analyseren van BoP bedrijven.

De eerste dimensie betreft de *waardepropositie* van het bedrijf, die het *verlangen* van de BoP om zaken te doen met het bedrijf bepaalt. Om waardevol te zijn voor de BoP moet de waardepropositie reële behoeften vervullen, een sociale bijdrage leveren aangezien zulke behoeften de overhand hebben in de BoP, de toegang van consumenten in de BoP tot producten en diensten vergroten waarmee hun capaciteit om te consumeren toeneemt, en/of de capaciteit tot produceren van producenten in de BoP vergroten door betere toegang tot markten, hogere productiviteit en betere toegang tot informatie. Ten tweede, *lokale capaciteitsopbouw* via het bedrijfsmodel, hetgeen bijdraagt aan de *capaciteit* van de BoP om zaken te doen. Een ondersteunende lokale capaciteit geeft een impuls aan de lokale bedrijvigheid, creëert dynamiek, en vergroot het vermogen van de mensen om economisch te participeren. Lokale capaciteitsopbouw bestaat uit de bijdrage van een bedrijf aan de ontwikkeling van lokale human resources, een stimulerende externe bedrijfsomgeving, en een op vrijemarkteconomie gebaseerd ecosysteem met transparant transactiebeheer. Maar verlangen en capaciteit alleen zijn ontoereikend. Het vereist ook een inheems bedrijfsmodel dat voortbouwt op de lokale gewoonten en omstandigheden in plaats van zakendoet op een manier die tegen bestaande gewoonten en omstandigheden in gaat. De mate waarin een bedrijf werkelijk aanwezig is als een inheemse actor – in plaats van gezien wordt als een externe 'buitenstaande' actor waar de BoP niets mee te maken heeft – bepaalt of de BoP zich kan herkennen in het bedrijf en zich comfortabel voelt om met het bedrijf zaken te doen. Ten derde is daarom *inbedding* van het bedrijf in lokale gemeenschappen vereist, hetgeen de mate inhoudt waarin het bedrijf een geïntegreerd onderdeel vormt van de levens van de mensen in de BoP. Inbedding ondervangt zodoende de mate waarin de BoP het zakendoen met het bedrijf als een daadwerkelijke *mogelijkheid* beschouwt. Ten vierde, de mate waarin *leren* onderdeel is van het bedrijfsmodel, hetgeen de mate van leren door het bedrijf door middel van 'native capability' weergeeft en daarmee het *vermogen om te verbeteren* over de tijd. Dit leren verloopt gezamenlijk met de mensen in de BoP. Het vereist de vaardigheid om "systematisch de opvattingen van de stakeholders aan de 'periferie' te identificeren, verkennen en integreren" (Hart & Sharma, 2004: 7) en in samenwerking met gemarginaliseerde groepen en gemeenschappen nieuwe zakelijke kansen en bedrijfsmodellen te ontdekken en te ontwikkelen. Ten vijfde en laatste, de *schaalbaarheid* van het bedrijfsmodel, die de *potentiële schaal en scope* bepaalt. Zulke schaalbaarheid hangt af van de hoeveelheid en verkrijgbaarheid van de benodigde input evenals de ambities en toepasbaarheid van het bedrijfsmodel.

Door het concept van bedrijfsmodel-eigenschappen toe te voegen hebben we de verklarende en voorspellende kracht van het ondersteuningsmodel vergroot in vergelijking met een stimulus-respons model (ofwel het bedrijfsmodel als reactie op de stimuli van bedrijfsuitdagingen of bedrijfsvragen). We verstrekten ook een discussie van elke bedrijfsmodel-eigenschap, waardoor we voorzien in de ontwikkeling van nieuwe mentale modellen die beter bij de BoP context passen.

Samenvattend levert Hoofdstuk 5 een essentiële bijdrage omdat het de analyse van bedrijfsmodellen die gericht zijn op de BoP in staat stelt, evenals een beoordeling van hun geschiktheid binnen deze context. De studie presenteert de te stellen bedrijfsvragen (zie Tabel 5.1), het te gebruiken raamwerk voor het formuleren van antwoorden op deze vragen (zie Figuur 3.2) en de eigenschappen waarnaar gezocht moet worden in de antwoorden op de bedrijfsvragen (zie Figuur 5.5). Verder verbreedt Hoofdstuk 5 ons begrip van concurrentievoordeel in de BoP. Het laat zien dat bedrijven waarde creëren, waarde toe-eigenen en zich van toekomstige levensvatbaarheid verzekeren door de manier waarop zij omgaan met bepaalde bedrijfsvragen, die voortkomen uit de bedrijfsuitdagingen in de BoP. Succes in de BoP hangt in het bijzonder af van hoe bedrijven bepaalde eigenschappen ontwikkelen in hun reactie op deze bedrijfsvragen.



Figuur 5.2: Het management ondersteuningsmodel voor de ontwikkeling van winstgevende ‘pro-arme’ bedrijfsmodellen in de BoP

In deze verhandeling hebben wij getracht een bijdrage te leveren aan het ontwikkelen van herziene mentale modellen. Wij zagen dat diverse onderdelen van deze mentale modellen in gespannen verhouding tot elkaar staan. Hoewel deze vaak de vorm van een trade-off aannamen, zagen we dat er ook mogelijkheden zijn om deze in trade-ons om te zetten waarbij de verschillende onderdelen elkaar juist versterken. Zodoende werd bovendien duidelijk dat een *multi-level* benadering noodzakelijk is. Het ging hier met name om het vinden van zelfversterkende combinaties tussen: de BoP als consument én als producent; de gemeenschap, het bedrijf, én het individu; locale differentiatie én globale coördinatie; de formele én informele economie; het traditionele én het moderne; en financiële, sociale, én ecologische performance.

Hoewel slechts enkele aspecten van private sector betrokkenheid bij de BoP in deze verhandeling ter sprake zijn gekomen hopen we desondanks dat deze heeft bijgedragen aan meer inzicht op dit gebied en anderen heeft aangemoedigd om onderzoek te doen binnen deze interessante en groeiende onderzoeksstroming. Bovendien hopen we te hebben bijgedragen aan verder succes van de private sector in het bestrijden van armoede en in het oplossen van de sociale problemen in de wereld in het algemeen.

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POVERTY ALLEVIATION THROUGH SUSTAINABLE STRATEGIC BUSINESS MODELS

ESSAYS ON POVERTY ALLEVIATION AS A BUSINESS STRATEGY

How can the private sector serve the unmet needs of the world's poor while, at the same time, attracting new business opportunities and advancing the standard of living of those living in poverty? One approach to this, known as the base-of the-pyramid, is for the private sector to develop towards including the poor as both producers and consumers. In this thesis we focus on some critical questions in base-of-the-pyramid research.

In cooperation with NGOs, development organizations and micro finance institutions, we collected a unique dataset of 143 firms operating in base-of-the-pyramid markets in a total of 105 countries. Their focal group of customers, employees, suppliers, and/or distributors have an average daily purchasing power of $2 or less. Building upon this dataset, we develop an empirically derived classification of business challenges for firms at the base-of-the-pyramid, and examine differences with high-income markets. We also extend and test the central postulate that embedding social and environmental value in a firm's business model drives a firm's financial performance at the base-of-the-pyramid. Lastly, we build a management support model, which can be used to develop profitable pro-poor business models. We provide managers and entrepreneurs with the questions to ask, the framework to help formulate answers to these questions, and the qualities to search for in the answers. To this end, we clarify and conceptually advance the strategic business model concept, which provides the multi-theoretical approach necessary for disruptive innovation and augments our understanding of competitive advantage.

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