
Original Article

How to Design and Implement Social Business Models for Base-of-the-Pyramid (BoP) Markets?

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Abstract This article studies for-profit social enterprises, which bundle entrepreneurial attitude with the passion to design and implement inclusive business models targeting the basic needs at the Base-of-the-Pyramid (BoP). The research objective involves understanding the challenges and strategic choices required for inclusive business models at the BoP. A qualitative multi-case-based research methodology is used for data collection and analysis. The experience of four social enterprises studied helps to gauge the ‘provisioning-for-all’ discourse, and resolve the theoretical tension as to why ‘self-sustaining’ should mean ‘profit driven’, as self-sustaining can signify ‘not-for-profit’ as well. The BoP market challenges include market imperfections; ethical dilemmas; missed identity; scarce resources; identifying real needs; quantifying socio-economic impact. The corresponding strategic choices are identified and mapped to the challenges, to enable social entrepreneurs to implement better informed decisions and social interventions at the BoP.

Cet article s’intéresse aux entreprises sociales à but lucratif, qui combinent à la fois l’attitude entrepreneuriale et la passion de créer et de mettre en œuvre des modèles d’entreprise inclusifs qui ciblent les besoins primaires, ceux à la base de la pyramide. L’objectif de l’étude est de comprendre les défis et les choix stratégiques nécessaires aux modèles d’entreprise inclusifs pour la base de la pyramide. Pour la collecte et l’analyse des données, nous utilisons une méthodologie de recherche qualitative, basée sur plusieurs études de cas. L’expérience de quatre entreprises sociales étudiées ici nous aide à juger de la façon dont les besoins de tous sont pris en compte, et à résoudre la tension théorique à propos de l’amalgame entre l’autosuffisance d’une entreprise et la recherche du profit, alors qu’une entreprise autosuffisante peut également avoir un but non lucratif. Les défis du marché à la base de la pyramide comprennent les imperfections du marché ; un dilemme éthique ; une identité manquée ; des ressources limitées ; l’identification du vrai besoin et la quantification de l’impact socio-économique. Les choix stratégiques sont identifiés et mis en relation avec les défis correspondants afin de permettre aux entrepreneurs sociaux d’appliquer de meilleures décisions et de mettre en œuvre des interventions sociales à la base de la pyramide.

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Introduction

The low-income population also known as the Base-of-the-Pyramid (BoP) segment, or informal market economy or underserved segment, is a collective reference to approximately 4 billion people, or around 65 per cent of the global population (Hammond *et al*, 2007). This socio-economic group earns less than US\$8 per person per day (2002 PPP) (Prahalad and Hammond, 2002; Hammond *et al*, 2007; Kapoor and Goyal, 2013); lives in the rural regions across developing economies; and lacks access to formal market ecosystems for the fulfilment of their basic needs like food, energy, water, health care, education, sanitation, housing and transportation (Prahalad and Lieberthal, 2003; London and Hart, 2004; Goyal *et al*, 2014).

This segment spends the majority of its income on consumption-based items, and lacks the awareness and means to redistribute its spending on capacity-building alternatives like health care, education, sanitation, clean water, energy and so on (Kalam and Singh, 2011). This implies that the majority of the BoP segment continues to remain poor and dependent on an informal market ecosystem. This lack of focus on capacity-building measures, and continual dependence on the informal economy for the fulfilment of basic needs, results from several issues surrounding its non-inclusive ecosystem.

The first issue is the failure of governments in planning and implementation of policies and regulations enabling the BoP segment access to the fulfilment of the basic needs, and encouraging entrepreneurs and entrepreneurship at the grass-roots level. The second issue is the failure of non-governmental organizations (NGOs) in creating a scalable market-based ecosystem. The third issue is the limited impact of corporate social responsibility (CSR) initiatives by commercial enterprises, mainly because CSR activities are non-core activities of commercial enterprises and therefore lack the desired levels of market orientation, commitment and impact evaluation.

The limitations of government institutions, NGOs and CSR-based initiatives have led to the emergence of 'Social Entrepreneurship'. The concept of social entrepreneurship comprises social enterprise as an organizational entity that integrates social and economic value creation, while being driven by a social mission (London and Hart, 2004; Seelos and Mair, 2005; Mair and Marti, 2006). Social enterprises bundle entrepreneurial attitude and passion, non-traditional networks of grass-root partners, social embeddedness, the harnessing of emerging technologies and innovations in designs and implementations used by for-profit business models, with a socio-economic orientation at the BoP.

The existing research on social entrepreneurship is largely phenomenon-driven, relying on anecdotal evidence and unique case-based experiences (Dacanay, 2004; Mair and Marti, 2006; Nielsen and Samia, 2008; Seelos, 2010). This poses a limitation to the desired growth, penetration and impact of social entrepreneurship. Because of this, every social enterprise has to go through a self-learning process in the field to understand environmental dynamics, and to create a business model suited to local context and challenges. This increases the risk of failure, while compounding the investment of time, capital and efforts.

This article conceptualizes the map between BoP challenges and strategic choices, in order to better understand the business model of social enterprises. The focus is on resolving the theoretical tension as to why self-sustaining should mean 'profit-driven', as there can be self-sustaining meaning 'non-profits' too: the experience of four social enterprises studied here tells us about provisioning for all. We need to avoid the 'fallacy of composition' problem: what may be true for the micro case may not be true at the macro-level. After the literature review and a description of the key challenges faced by social enterprises, we describe the research scope, design and methods for this study. This is followed by a discussion of the results from the analysis. The research is concluded by depicting the theory, practice and policy-level implications, as well as recommendations for areas of future research.

What is Social Entrepreneurship?

The research literature highlights the two broad conceptions regarding the understanding of social entrepreneurship.

The first conception of social entrepreneurship refers to the 'social change' perspective, where a business venture implements the governance structure, business processes and key performance indicators to reflect the positive social change. The primary consideration is the fulfilment of the

social objective, irrespective of the underlying organizational set-up, structure and processes. In this perspective, social enterprises are focused on mobilizing the scarce resources and reconfiguring the processes to fulfil the social mission; the success is measured on the basis of the social outcomes (Dees, 2001; Austin *et al*, 2006; Chell, 2007; Tracey and Phillips, 2007). These enterprises attract human and social capital with community-spirited motives, and rely on the subsidies and grants from government and philanthropic institutions to fund their social mission.

The second conception of social entrepreneurship refers to the ‘socio-economic change’ perspective, where the business venture implements governance structures, business processes and key performance indicators to reflect commercial viability along with positive social change (Dees and Anderson, 2003; Hart and Milstein, 2003; London and Hart, 2004; Austin *et al*, 2006; Peredo and McLean, 2006; Ridley-Duff, 2006; Chell, 2007; Tracey and Phillips, 2007; London, 2008). In this perspective, social enterprises are focused on design and implementation of innovative market-based business models, where success is measured on the basis of the socio-economic outcomes including revenue generation, social impact and outreach levels.

The common thread across these two conceptions of social entrepreneurship is that the primary focus lies in bringing out positive social change at the BoP rather than generating the economic gains. The legal form and structure of an organization does not influence the classification of social enterprise. Instead, the legal form and structure is determined on the basis of the market context and ease of mobilizing the resources (human and social capital) required for achieving the social mission. Dees (2001) argues that the key characteristics of social enterprise involve (i) focus on the social mission; (ii) identifying the new opportunities to serve the mission; (iii) focus on the continuous innovation, adaptation and learning; (iv) managing resource constraints; (v) and holding accountability for the social outcomes and impact on the target segment.

This article focuses on the second conception of social enterprises, which are characterized by socio-economic objectives, a hybrid or for-profit organizational set-up, and a market-based business logic for the fulfilment of the social mission. The next section focuses on the challenges faced by social enterprises.

Social Enterprises – Challenges

Social enterprises face similar challenges to commercial enterprises during the initiation, establishment and institutionalization of their business ventures. However, these challenges require unique solutions, considering the focus on social mission, and the socio-economic profile of the BoP segment (Austin *et al*, 2006; Sharir and Lerner, 2006; Chell, 2007; Tracey and Phillips, 2007).

The first challenge facing social enterprises relates to the environmental dynamics at the BoP. The environmental challenges faced by social enterprises are related to the three types of market imperfections: customer type, infrastructure availability and market set-up (Cohen and Winn, 2007; IFMR, 2011). The socio-economic profile of the customer poses a challenge in terms of low income levels, irregular cash flows, lack of savings pattern, low literacy levels, diversity of languages, limited mobility patterns and purchase decisions influenced by social beliefs. The infrastructure challenge covers the absence of basic services required by a business like electricity, water, roads, technology and a transportation network across rural and semi-urban areas. The market-oriented challenge covers low population density, lack of government support, non-reliable data sets (information and statistical inputs) and informal market dominance.

The second challenge facing social enterprises is the management of the double bottom-line, creating a balance between social and commercial objectives. The dual focus on social relevance and commercial viability is impacted by environmental dynamics; leads to the ethical dilemma; and determines the organizational set-up, culture, governance and control mechanisms (Tracey and Phillips, 2007; Harris *et al*, 2009; Zahra *et al*, 2009).

The third challenge facing social enterprises is regarding the lack of awareness, belief and acceptance at the BoP of the market-based ecosystem (Pralhalad, 2004; Tracey and Phillips, 2007). Addressing this challenge requires actions and processes to create a positive identity among the key stakeholders including the BoP segment, non-traditional partners and local government institutions.

The fourth challenge facing social enterprises is linked to the need for mobilization of scarce capital and skilled manpower resources. Social enterprises are constrained by low profit margins, high operating costs due to infrastructure challenges, additional overhead cost in creating market awareness and limited options for raising capital (Sharir and Lerner, 2006; Tracey and Phillips, 2007; Certo and Miller, 2008). Furthermore, social enterprises are constrained by the scarcity of skilled resources willing to align with the social mission, and work in peri-urban areas and villages.

The fifth challenge facing social enterprises regards the complexity of understanding the real needs, design and delivery of offerings at the BoP (Pralhalad, 2004; Ward, 2004).

The sixth challenge facing social enterprises lies in quantifying the social performance and impact of the social enterprise itself (Mair and Marti, 2006; Sharir and Lerner, 2006; Certo and Miller, 2008). Social performance metrics lack standardization and objectivity in terms of impact assessment. Instead, social performance is measured mainly in terms of the number of BoP customers and outreach levels.

Research Design

Research Scope

This article focuses on social enterprises enabling access to health care and energy solutions for the BoP segment in India. India is an important BoP market and therefore there is validity in looking at the Indian cases. As per the World Economic Forum (2009), India and China account for 60 per cent of the global BoP population. The World Bank estimates that 68.7 per cent of the approximate 1.2 billion population in India lives on less than \$2 (2005 PPP) per day. Rural India comprises over 600 000 villages and accounts for 70 per cent of the country's total population. The BoP segment spends more than 80 per cent of its MPCE (Monthly Per Capita Expenditure) on consumption-based items including food, kerosene and intoxicants (NSSO, 2009). There is very little awareness, and there are very few means to redistribute the spending on capacity-building alternatives like clean energy, preventive health care and education. This has resulted in the *status-quo* of the socio-economic lifestyle of the poor (Kalam and Singh, 2011).

Our choice of social enterprises focusing on energy and health-care needs is driven by the three assumptions. First, these social needs are linked to the Millennium Development Goals (MDGs) and therefore receive global focus and attention. The MDGs are defined by the UN in a resolution passed by the General Assembly in 2000 and comprise eight specific goals aimed at social development and poverty eradication across the globe by 2015. The goals include specific actionable measures targeting gaps pertaining to human rights, income levels, health, education, energy, information and environmental issues (Seelos and Mair, 2005). Second, energy and health-care needs account for the majority of the non-food spending (15 per cent) by BoP

households (Kalam and Singh, 2011). The majority of this spending is done in informal markets buying kerosene and getting health treatment by unqualified local health-care providers. This has a negative impact on the quality of life of BoP households (Kalam and Singh, 2011). Third, ineffective government policy frameworks and insufficient infrastructure cannot bridge the demand–supply gap for these basic needs of the poor.

Research Methodology

The research objective is to conceptualize the map between the BoP challenges and strategic choices, to enable social enterprises to better understand their business model. This research involves social enterprises as an organizational entity, business model as a conceptual framework and BoP as a target segment. The fulfilment of this objective requires interaction with multiple stakeholders and an analysis of their complex and inter-disciplinary relationships, which cannot be made evident from the survey-based statistical analysis (Eisenhardt, 1989; Esposito *et al*, 2012). Hence, this research has been conducted within the realms of the constructivist/interpretive paradigm, making use of the multiple case study method (Arbner and Bjerke, 1996; Dubois and Gadde, 2002; Ponterotto, 2005). The multiple case study approach is relevant due to the fact that BoP market is a complex phenomenon, linked to a multi-disciplinary form of knowledge. The complexity lies in terms of the customer profile, operating environment and stakeholders involved, resulting in multiple levels of actions, interactions and consequences. The use of multi-organization case-study-based design allows for in-depth analysis, thereby enabling a better understanding of the ‘How’ and the ‘Why’ occurrence of outcomes (Eisenhardt, 1989; Miles and Huberman, 1994). The tentative explanations found during the within-case analysis are being matched across the other cases, thereby enhancing the reliability and validity of the drawn conclusions (Yin, 2009). This exploratory mode of research is particularly suitable for understanding the business models and strategies in emerging economies (Hoskisson *et al*, 2000).

This article adopts a mix of deductive–inductive research logic for problem formulation, data collection and data analysis. The deductive logic is aimed at identifying the key challenges evident in the research literature. These challenges act as a broad framework for the inductive stage. This ensures that the researcher is able to focus, sort and structure data in an informative manner during qualitative research (Miles, 1979).

Case Study Protocol, Sampling and Data Collection

The data collection phase is a crucial link between the research objective and findings. The key aspects of the case-study-based research design involve the dependence on the multiple data sources and data collection techniques (Yin, 2009). The data collection is preceded by the design of case study protocol and sampling criterion.

The case study protocol is important as a tool to highlight the key aspects of the data collection phase, and maintain the reliability of the research design (Yin, 2009). The case study protocol lists the details of the data collection instruments, in order to question and discover the ‘How’ and ‘Why’ aspects of the strategic actions undertaken by social enterprises at the BoP. This involves understanding the context, needs, competition, challenges and drivers, followed by the key focus areas and strategic choices undertaken by the social enterprises.

The sampling involved the iterative selection of positive cases of for-profit social enterprises targeting the energy and health-care needs of the BoP segment. The access to failed social enterprises was not available, considering the nature of their private set-up and limited availability of information in the public domain. However, the choice of the type and number of

cases was made in accordance with the logic of theoretical sampling and saturation (Glaser and Strauss, 1967). Cases were chosen in parallel at the data collection stage to replicate the previous cases; extend the emergent theory; and map the within and cross-case findings (Eisenhardt, 1989).

The sampling criteria involved the choice of social enterprises having the following attributes:

- Legal set-up in India as a private limited company
- Offering end-to-end solutions for health-care and energy needs
- Focusing primarily on low-income populations living in semi-urban and rural areas and earning less than \$2 (2005 PPP levels) per day. Considering the average household (family) size of five members, the average daily family income amounts to \$10. This is equivalent to INR 450 (Year 2005 Rates: \$1=INR 45) per day or INR 13 500 per month
- Mission having a social orientation

The sampling details are shown in Table 1. The Appendix provides a brief overview of these enterprises.

There is an iterative linkage and overlap between the stages of data collection, familiarization and analysis (Corbin and Strauss, 1990; Miles and Huberman, 1994; Charmaz, 2011).

The *data collection stage* involved collecting the data from secondary and primary sources. Secondary sources of data included company websites, and information available in the public domain. This was followed by primary data collection from multiple stakeholders including the social enterprises' senior management team, operations team (sales team, nurses), customers (village households, patients) and field partners (regional rural banks (RRBs), suppliers). The sources of primary data collection included field interviews, focus groups and field observations.

The *data familiarization stage* involved (i) transcribing the field inputs; (ii) writing the case reports; (iii) getting the review inputs from the respective enterprises; (iv) and finalizing the case reports.

The *analytical stage* involved undertaking with-in case analysis, cross-case analysis and comparison with extant literature. The data in the case reports was conceptualized via the coding process. This process involved first-level reduction of the data analytically by comparing the events/actions/interactions against each other for similarities and differences, thereby leading to conceptual labelling (Corbin and Strauss, 1990). Conceptually similar ones were grouped together to develop categories and sub-categories. The coded data was compared and contrasted in an exploratory manner using the partially ordered data display technique for data analysis and reduction (Miles and Huberman, 1994). The findings were continually updated and refined during the iterative inputs emerging from the continuing field studies, and ongoing comparison of the findings with the extant literature. The results of the analysis are explained in the next section.

Table 1: Sampling (list of social enterprises)

<i>Ref</i>	<i>Company</i>	<i>Need addressed</i>	<i>Year of inception</i>	<i>Offerings</i>
SE#1	Selco	Lighting and cooking	1995	Clean energy solutions with door-step support and financing
SE#2	Boond		2010	
SE#3	Narayana Hrudayalaya	Health care	2001	Tertiary care
SE#4	E Health Point		2009	Primary care+drinking water

Discussions and Findings

The findings of this study are presented in two stages. The first stage involves presenting the narrative incorporating the emergent themes and strategic choices on the basis of in-depth case study interviews. Themes include segmentation, customer relationship, value offerings, organizational set-up, partnerships, social embeddedness, socio-economic returns, experimentation and innovation, and scalability. The strategic choices derived under these themes are identified and presented. The second stage involves conceptualizing the mapping between these strategic choices and the key challenges faced by social entrepreneurs.

Thematic Analysis and Strategic Choices

Segmenting the BoP

Needs and spending patterns vary on the basis of the socio-economic profile of the target segment at the BoP. Because of this, the BoP is considered as a non-homogeneous segment, requiring differentiated product/service offerings and value-creation strategies for different sub-segments within the BoP. Moreover, market challenges require social enterprises to adopt a focused segmentation approach based on socio-economic profile and choice of locations. The decision regarding the inclusion of the extreme poor depends on the mission type. The majority of the social enterprises target low-income households living across rural and semi-urban locations. The choice of locations is made on the basis of the demand–supply gap, comfort level of the founders and availability of minimal support infrastructure. Few of these social enterprises target the extreme poor subject to the (lack of) availability of funds from the philanthropic sources.

The discussion with SE#1 indicated the following:

... main focus has been on the rural segment ... which is ... un-electrified ... all type of consumers irrespective of income level. Focus on low income segment ... primarily rural households ... mainly in Karnataka ... having a well-established banking model, with reach in rural areas as well.

SE#2 echoed the similar approach for segmentation:

... targets people earning between \$4–\$10/day ... rural, low income segment in un-electrified villages, including the micro-enterprises and extreme poor households.

The health-care social enterprises (SE#3 and SE#4) adopted the similar segmentation approach while targeting the BoP segment. The discussion with top management of SE#3 indicated the following approach for segmentation.

... have created five tiers of the community based upon affordability ... acceptable to all segments from very poor to the rich ... but this is built for the poor people ... started with cardiac care and now provide all other specialty offerings ...

SE#4 focused on the low-income segment across the rural and peri-urban locations while excluding the extreme poor.

targets the rural and peri-urban communities living in villages and small towns ... location selection on the basis of three factors – ... our familiarity ... prevailing socio-economic situation and need of the community there ... targets land owners, farmers and local merchants ...

Proposition 1: *Social enterprises strive to make positive socio-economic impact by segmenting the BoP market on the basis of income and location.*

Delivery and support channels

Market challenges require social enterprises to set up last-mile channels by leveraging technology, having brick-n-mortar set-up, and through local engagement. There is a need for distribution and delivery set-up, which guarantees the physical and emotional proximity, thereby creating awareness and acceptance at the BoP. Furthermore, the purchase decision of the poor population is largely driven by the urgency of the need. This requires a distribution set-up that is adaptive, accessible and available as per the working and mobility patterns of the individuals at the BoP.

The social enterprises studied here created last-mile channels for delivery and support by integrating technology-based accessibility and availability with their physical network. These social enterprises trained and engaged the local people to creating awareness, acceptance and reach across remote locations.

The energy entrepreneurs (SE#1 and SE#2) highlighted the theme of last-mile delivery channels in the following comments:

... decided to do away with dealership/franchise model and adopted the brick-n-mortar model via direct branches ... also have business agents model comprising local individuals acting as solo between the branches.

Similarly, health-care entrepreneurs (SE#3 and SE#4) reflected the following approach regarding last-mile channels:

... setup telemedicine centres in rural sectors, linked to our hospitals ... use of mobile health vans for rural outreach ... adopted a cluster based approach.

Proposition 2: *Social enterprises strive to achieve positive socio-economic impact by focusing on technology, brick-n-mortar, and local engagement-based delivery and support channels.*

Design of value offerings

Social enterprises design customized, need-based, end-to-end solutions, and focus on bringing on systemic behaviour change leading to social acceptance at the BoP. The focus on improving access to products and services for low-income people, and reducing the poverty penalty, contributes significantly to business success at the BoP. Enterprises need to focus on building community awareness, as well as offering end-to-end solutions that are affordable (high performance versus price ratio), available (minimum wait time), acceptable (social acceptance) and accessible (delivery network) to the target BoP segment.

The social enterprises studied here adopted a solution-based approach, and set up a grass-roots network of local people and community-based organizations (CBOs) to achieve a change in behaviour.

The energy entrepreneurs (SE#1 and SE#2) focused on enabling access to doorstep financing and after-sales support, as well as practical demonstrations in public congregation places, as a part of their value offerings.

... offer to the customers includes access to energy with installation of a complete solar setup customized to their requirement and paying capacity; access to door-step service, access to door-step finance and customization ... demonstrations in local institutions ... like church, mosque, temple, school, hospital ... because the people ... feel more confident ... if something works in a bigger setup ... it will definitely work in their homes

The health-care entrepreneurs (SE#3 and SE#4) focused on delivering a complete health-care package (consulting, diagnostics and medicines) as well as conducting rural health camps demonstrating the benefits of preventive and curative health care.

... offers curative as well as preventive healthcare ... includes primary healthcare supported by pharmacy, diagnostics and clean drinking water ... also started introducing referral tie-ups. Engage chain of health coordinators ... who help to educate the local population on the benefits of clean drinking water and healthcare setup ... promoted offerings at ... places like religious setups, educational institutes etc setup free health camps.

Proposition 3: *Social enterprises strive to achieve positive socio-economic impact by offering need-based, end-to-end solutions, rather than stand-alone products or services.*

Proposition 4: *Social enterprises strive to achieve positive socio-economic impact by making resource investments in market-building and social acceptance, via a systemic behaviour-change orientation programme.*

Deciding upon the organizational set-up and culture

The challenges facing social enterprises relating to their identity (awareness and acceptance) and the scarcity of resources (financial and manpower) require social enterprises to focus on hybrid set-ups, comprising a for-profit entity for undertaking market-based transactions, and a non-profit foundation generating funds and investing resources into market-building activities.

The social enterprises studied here focused on a hybrid organizational set-up to separate the market-based transactions from the philanthropic and market-building initiatives.

The energy and health-care entrepreneurs (SE#1, SE#2, SE#3, SE#4) opted for the combination of a for-profit set-up and a non-profit foundation. The objective of a hybrid set-up was to maintain a clear distinction among the market-based transactions, market-building initiatives and funding towards inclusion of the extreme poor. The for-profit entity was responsible for the self-sustainable business transactions with the paying customers. The non-profit entity focused on generating revenues from grants to deliver solutions to the extreme poor, as well as undertaking market-building initiatives like conducting camps, demonstrations, and trainings for local skill development.

... follow the hybrid approach, which is basically a setup comprising for-profit arm and a non-profit entity. The entire setup builds upon equity investments and grants. The non-profit arm works in three areas – one is creating awareness, other is training and third one is social impact measurement.

Proposition 5: *Social enterprises strive to achieve a positive socio-economic impact by having a hybrid organizational set-up.*

Building non-traditional partnerships

Social enterprises opt for non-traditional partnerships, focusing on cooperative (rather than competitive) paradigms. There is a realization that serving the BoP requires focus on non-traditional partnerships with technology institutions, academic NGOs, CBOs, informal market competitors and government bodies. These non-traditional partnerships enable social enterprises to overcome barriers of affordability, accessibility, availability, awareness and acceptance.

For energy enterprises (SE#1 and SE#2), collaboration with technology and academic institutions enabled them to access global technologies and engineering skills required for the design, development and dissemination of value offerings suited to the real energy needs of the rural

population. The collaboration with government institutions like MNRE (Ministry of New and Renewable Energy) and RRBs helped to create social acceptance, as well as making available subsidy benefits for rural customers. The collaboration with NGOs, CBOs and local micro-entrepreneurs led to last-mile connectivity, as well as the launch of local skill-building and awareness programmes.

... global academic, technology and development institutions ... align with government to contribute in policy making ... engage energy entrepreneurs ... partnerships with regional rural banks for financing and awareness building ... collaborations with NGOs for last-mile awareness, reach and trainings of the local population.

For health-care enterprises (SE#3 and SE#4), collaboration with technology and academic institutions enabled them to access global technologies as well as clinical and non-clinical standards to deliver high-quality health care. The collaboration with the government led to the availability and social acceptance of government-sponsored health insurance schemes for the poor. The collaboration with NGOs and CBOs led to last-mile connectivity and reach in the form of health camps and mobile health clinics.

... with technology and academic institutions to optimize costs like use of digital X-ray ... collaborated with ISRO and government health centres to launch telemedicine services ... launched healthcare scheme along with government ... local NGOs and charitable associations to conduct health camps in remote villages.

Proposition 6: *Social enterprises strive to achieve positive socio-economic impact by forming non-traditional partnerships with the academic institutions, technology institutions, government institutions, NGOs, CBOs and informal market competitors.*

Social embeddedness

There is a need for social embeddedness to gain insights into the real needs of the BoP segment, to leverage the grass-roots network and generate trust and transparency at the BoP. The main strategic choices involve local capacity-building, by engaging local individuals and institutions, as well as by developing a localized learning mechanism to generating field-level inputs and to understand the local context. These choices involve making a shift in market orientation, from a transaction-based approach to a relationship-based approach. The relationship-based approach puts emphasis on indigenous actions, which are synchronized with local customs and conditions.

Energy enterprises (SE#1 and SE#2) focused on local capacity-building by conducting skill-building and awareness-oriented trainings for stakeholders, as well as engaging local people for business operations at the BoP. These enterprises designed an embedded learning-oriented culture by ensuring the continuous on-field presence of their employees.

... being on the field, we get lot of queries ... spending time with the poor communities helps in understanding their real needs ... conduct trainings for regional rural banks because business model requires banks to be aware about the ... benefits ... solar installation ... holding demonstrations at public places as well as at homes ... adopt business agents model ... brick-n-mortar setup having local population trained as technicians ... train the technicians for management roles ...

Health-care enterprises (SE#3 and SE#4) focused on local capacity-building, by training local girls and women as nurses and para-medical staff, as well as conducting health awareness campaigns across target locations. To learn from the market, these enterprises created multiple checkpoints for receiving feedback from customers during their stay.

... involving the local community, in whatever ways, we can ... conducting rural health camps and social marketing campaigns ... encourage girls from poor households to get trained as nurses ... engage local population ... to communicate effectively with the local people ... mentor our staff that this hospital is for

the poor people ... train the semi-skilled staff to perform the non-core nursing activities and train the high performance nurses to take up ... critical care responsibilities.

Proposition 7: *Social enterprises strive to achieve positive socio-economic impact by conducting skill-building programmes for local people, as well as engaging them across the value chain for value creation and delivery.*

Proposition 8: *Social enterprises strive to achieve positive socio-economic impact by setting up a bottom-up, grass-roots learning ecosystem.*

Managing socio-economic returns

There is a need for social enterprises to take measures aimed at maximizing the cost-efficiency, multiplying revenue streams, attracting social investors, raising funds from philanthropic sources and quantifying social performance. Social indicators cover those measures linked to the direct and indirect benefits for the target segment, coverage and outreach (in terms of people and locations). Few social enterprises also include indicators like trainings conducted, employment generated at the grass-root level, employee retention levels and complementary benefits like carbon emissions saved.

However, assessing social performance and impact still remains one of the key challenges for social entrepreneurs. The real problem lies in quantifying the statistics and measurements into performance impact at the grass-root level.

The energy and health-care enterprises (SE#1, SE#2, SE#3 and SE#4) focused on maximizing cost-efficiency by undertaking measures like engaging local people, volunteers and interns; undertaking process innovation; offering multiple products and services; going for a no-frills set-up in the rural areas; and integrating high-touch technologies to substitute scarce resources. Revenue maximization measures involved scaling the operations in terms of offerings and reach, and aligning with social investors and philanthropic organizations to raise capital. Social performance measures involved impact assessment (impact volumes and outreach levels).

Regarding SE#1 and SE#2,

... local engagement and interns to minimize costs, brick-n-mortar setups; revenues from selling energy solutions and after sales support ... philanthropic funds for market building and targeting the extreme poor ... government subsidies ... social impact in terms of trainings conducted, villages covered, households impacted and energy centers setup ...

Regarding SE#3 and SE#4,

... focus on the process innovations and technology to enhance productivity and bring down the costs thereby making the services more affordable ... asset-light setups ... revenues from end to end services including consulting, diagnostics, medicines ... grants and philanthropic funds ... impact in terms of patient volumes and outreach levels ...

Proposition 9: *Social enterprises strive to achieve positive socio-economic impact by undertaking measures related to cost minimization and revenue maximization.*

Proposition 10: *Social enterprises strive to achieve positive socio-economic impact by quantifying the assessment of social impact.*

Experimentation and innovation

The ability to undertake field pilots and use low-cost probes minimizes the risks of failure while maximizing the rate of learning, thereby pushing the ability to design solutions as per the needs

and challenges of the local context. Enterprises targeting the BoP segment need to undertake product, process and business model innovations to minimize the impact of BoP challenges. The access to the grass-root learning ecosystem plays an important role in developing experimentation and innovation capacity. The structural innovations (comprising standardization of operating procedures, optimization of processes and adoption of technology-oriented solutions) play a significant role at the BoP.

Energy enterprises (SE#1 and SE#2) focused on experimentation and innovation to identify new value offerings linked to the different energy needs of the BoP segment, streamlining the processes for value creation and delivery. The new offerings ranged from complementary solutions (financial accessibility, support set-up) to value-added solutions.

We are very field driven ... do the pilot ... at those places, understand the customization needs ... and price points and then launch the same ... engagement at the field level, helps us in learning about their real needs and willingness for different products.

For health-care enterprises (SE#3 and SE#4), the experimentation and innovation approach involved identifying different health-care offerings, optimizing processes and forming new partnerships. The offering-based innovations included provision for hybrid pricing, fixed price delivery, health-care insurance and preventive health care. The process-based innovations included cluster set-ups; designing clinical and non-clinical protocols; preparing standard operating procedures; increasing productive capacity and utilization of resources; minimizing customer waiting times; and improving the customer feedback process. The technology-based innovations included the use of digital X-rays; setting up a telephone booking process; and a tele-medicine set-up for connecting patients in remote locations.

... optimize costs by tweaking processes, driving hard bargains and negotiating creative partnership deals
... health care industry needs more process innovation than product innovation ... standardization of processes for high level of capacity utilization and staff productivity ...

Proposition 11: *Social enterprises strive to achieve positive socio-economic impact by conducting field pilots; by using low-cost probes; and through product and process innovations.*

Scalability

To maximize the socio-economic impact while remaining economically viable, social enterprises focus on a low margin and high volumes scalability approach. Scalability refers to the capacity to expand quickly, effectively and efficiently. The major dilemmas faced by the enterprises involve the timing and choice of strategy for the scaling of offerings. Considering that the BoP market offers low margins, and requires a long time to build market acceptance, the vertical growth scalability model is a risky proposition. There have been instances of social enterprises operating at the BoP that failed, despite having a strong business model, due to their vertical growth strategy. Social enterprises prefer the ‘S-curve’ growth model. This involves starting small, focusing on market-building and fine-tuning the business operations, before scaling the business operations in terms of offerings and geographies.

The energy enterprises studied (SE#1 and SE#2) started their operations in a few locations and achieved self-sustainable revenues and social acceptance before replicating the same across new locations.

... have to be clear on objective of scaling. Is it better turnover? No. Our objective here to reach more people and ensure our energy services benefits more people ... requires market penetration and incubation

approach ... believe in S-curve growth model. You need to spend considerable time at the BoP before planning for vertical expansion

The health-care enterprises studied (SE#3 and SE#4) adopted a similar iterative expansion approach in terms of offerings and locations. These enterprises started at a few locations with limited specialty offerings, and subsequently expanded their reach and offerings, after achieving self-sustainability and social acceptance.

... for us, scale means, how many more people, we can serve ... one is deepening the range of products and services in current service offerings and locations. Second is focusing on new geographical locations that we intend to expand into.

Proposition 12: *Social enterprises strive to achieve positive socio-economic impact by adopting the S-curve growth model to scale their operations.*

Mapping the Challenges with the Strategic Choices

The preceding section focused on embedding the data descriptions into the text in order to identify the major themes and strategic choices required by the social enterprises. This has led to the development of propositions identified during the thematic analysis. Similarly, the review of the research literature has led to the identification of the key challenges faced by the social entrepreneurs in the BoP market.

Dees (2001) argues that social entrepreneurs do not allow the lack of resources to limit their options. However, reality works out differently in the field of social entrepreneurship. The for-profit social entrepreneurs decide upon the market options, and opt for the strategic choices, while keeping market constraints in mind. Managing these challenges, in order to remain socio-economically relevant, requires a strategic and operational orientation.

The findings suggest that the strategic choices need to be aligned with market imperfections and the challenges faced in the BoP markets. Table 2 maps the strategic choices and key challenges faced by social entrepreneurs.

The majority of the strategic choices adopted by social entrepreneurs are aimed at the challenges relating to market imperfections (customer, infrastructure and market set-up); identity build-up (awareness and acceptance); resource scarcity (capital and manpower); and need assessment (affordable, available, accessible). There are limited strategic actions that address those challenges relating to the ethical dilemma on the double bottom-line, and performance assessment in terms of socio-economic impact actions.

Regarding the ethical dilemma, the majority of for-profit social enterprises tend to balance the social mission with increasing economic returns by expanding their offerings and reach at the BoP. However, these enterprises differ with respect to their orientation towards the extreme poor segment. While some social enterprises prefer that the government serve the extreme poor and exclude them from their target segment, others set up a non-profit foundation to generate philanthropic funds to serve the extreme poor themselves. Furthermore, these social enterprises recommend ongoing experimentation and innovation integrating emerging technologies to designing new and better solutions, which will enable the inclusion of the extreme poor.

Another key challenge lacking a matching strategic action is the objective assessment framework for evaluating the socio-economic performance of social enterprises. The real problem is not the measurement *per se*, but how the measures can be used to quantify the performance and impact of social enterprise (Mair and Marti, 2006). Emerson (2003) argues

Table 2: Mapping the challenges and strategic choices

<i>Social entrepreneurship challenges</i>		<i>Market imperfections: customer, infrastructure, market</i>	<i>Ethical dilemma: double bottom-line</i>	<i>Identity: awareness and acceptance</i>	<i>Scarce resources: capital and manpower</i>	<i>Identify need: affordable, available and accessible</i>	<i>Assessment: social performance and impact metrics</i>
<i>Categories</i>	<i>Strategic choices</i>	<i>Cohen and Wimm (2007); IFMR (2011)</i>	<i>Tracey and Phillips (2007); Harris et al (2009); Zahra et al (2009)</i>	<i>Prahalad (2004); Tracey and Phillips (2007)</i>	<i>Sharir and Lerner (2006); Tracey and Phillips (2007); Certo and Miller (2008)</i>	<i>Prahalad (2004); Ward (2004)</i>	<i>Mair and Marti (2006); Sharir and Lerner (2006); Certo and Miller (2008)</i>
Segmentation	<i>P1: Segmenting the BoP (non-homogenous)</i>	X	X	—	X	X	—
Delivery and support network	<i>P2: Setting up last-mile channels – technology, brick-n-mortar, engage the local people</i>	X	—	X	X	X	—
Value offering	<i>P3: Offering need-based end-to-end solutions</i>	X	—	—	—	X	—
Value offering	<i>P4: Implementing behaviour change orientation</i>	—	—	X	—	—	—
Organization set-up	<i>P5: Setting up hybrid organization</i>	—	X	X	X	—	—
Partnerships	<i>P6: Collaborating with non-traditional partners including government, non-profits and local micro-entrepreneurs</i>	X	—	X	X	X	—
Social embeddedness	<i>P7: Conducting trainings, local skill-building and local engagement</i>	—	—	X	X	X	—
Social embeddedness	<i>P8: Setting up grass-root learning ecosystem</i>	—	—	X	—	X	—
Socio-economic returns	<i>P9: Managing cash flows by cost efficiency and revenue maximization measures</i>	—	—	X	X	X	—
Socio-economic returns	<i>P10: Evaluating social impact in terms of beneficiaries, trainings and outreach</i>	—	—	—	—	—	X
Experiment and innovate	<i>P11: Conducting field-pilots; low-cost probes; product and process innovations</i>	X	X	—	X	X	—
Scalability	<i>P12: Adopting S-curve growth model to scale the operations</i>	—	X	X	X	—	—

that the elements of social value lie beyond measurement and quantification. This article also does not identify a unique action being undertaken by the social enterprises in this direction. Social enterprises studied here have measured their social impact on the basis of the number of villages covered, population benefitted and local people trained.

Implications for Theory, Management and Policy

This article has theoretical, practitioner and policy implications.

From the theoretical perspective, the field of social entrepreneurship has started gaining attention from a variety of domains, including strategy, operations, marketing, community development, resource management and entrepreneurship. However, the existing mode of research has been dominated by unique case-based experiences, and thereby lacks focus on the conceptual recognition and convergence of social entrepreneurship. This article attempts to bridge the gap of self-containment, and to push the social entrepreneurship field of research towards the next level, by mapping the key challenges it faces with the strategic choices it makes, by showing which actions are necessary to ensure the socio-economic viability and sustainability of enterprises targeting the social needs of the BoP segment.

From the practitioner perspective, this article argues that the performance of social enterprises requires a multi-dimensional constrained optimization strategy while operating at the BoP. The first dimension focuses on the creation of an ecosystem to identify the challenges at the BoP. This implies that the performance at the BoP is influenced by the level of resource commitment made by each social enterprise to better understand the dynamic environmental context. Furthermore, clarity about its mission and socio-economic objectives, followed by appropriate actions and processes, creates the next level of differentiation between the success and failure of social enterprises at the BoP. The second dimension focuses on mapping the responses of the enterprise to the BoP challenges, and implementing the strategic choices aimed at delivering end-to-end solutions at the BoP.

From the policy perspective, this article recommends a shift in government focus, from being seen an implementation body to being perceived as an enabling institution. The dominant logic is that BoP segment can be served only by non-profit enterprises and government initiatives. However, this article amplifies the fact that the concept of for-profit social entrepreneurship is one of the most effective approaches in targeting the social needs of the BoP segment. There is a need for government to shift its focus towards creating an ecosystem that encourages the growth and diffusion of social entrepreneurship across the BoP market.

Conclusion

This study is an original contribution to the field of social entrepreneurship in number of ways. Its first contribution lies in identifying the key challenges and constraints faced by the social enterprises while operating at the BoP. Its second contribution lies in identifying the strategic choices (actions) required by social entrepreneurs to make better informed decisions and social interventions at the BoP. Its third contribution lies in mapping the key challenges faced by social enterprises, and mapping the strategic choices required to manage those challenges. It has been observed that there are certain challenges (for example, managing the ethical dilemma of double bottom-line, and quantifying the social impact), which lack sufficient focus and strategic actions by social enterprises. Regarding ethical dilemma, the

majority of for-profit social enterprises face ambiguity and reluctance in their segmentation approach towards the extreme poor sub-segment. The dominant belief is that there exists no for-profit business model that can target the extreme poor sub-segment within the BoP segment. Rather, this sub-segment requires intervention of the government and non-profit institutions.

Regarding the social impact assessment framework, existing performance measures are not standardized, and are subject to the interpretation of individual enterprises. There is a need for further research in this direction to create a quantifiable assessment framework to evaluate social impact.

References

- Arbner, I. and Bjerke, B. (1996) *Methodology for Creating Business Knowledge*, 3rd edn. London: Sage Publications.
- Austin, J.E., Stevenson, H. and Wei-Skillern, J. (2006) Social and commercial entrepreneurship: Same, different, or both? *Entrepreneurship Theory & Practice* 30(1): 1–22.
- Certo, S.T. and Miller, T. (2008) Social entrepreneurship: Key issues and concepts. *Business Horizons* 51(4): 267–271.
- Charmaz, K. (2011) Constructivist and objectivist grounded theory. In: N.K. Denzin and Y.S. Lincoln (eds.) *Handbook of Qualitative Research*, 4th edn. Thousand Oaks, California: Sage Publications.
- Chell, E. (2007) Social enterprise and entrepreneurship towards a convergent theory of the entrepreneurial process. *International Small Business Journal* 25(1): 5–26.
- Cohen, B. and Winn, M.I. (2007) Market imperfections, opportunity and sustainable entrepreneurship. *Journal of Business Venturing* 22(1): 29–49.
- Corbin, J. and Strauss, A. (1990) Grounded theory research: Procedures, canons, and evaluative criteria. *Qualitative Sociology* 13(1): 3–21.
- Dacanay, M.L.M. (ed.) (2004) *Creating Space in the Market: Social Enterprise Stories in Asia*. Makati, Metro Manila: Asian Institute of Management and Conference of Asian Foundations and Organizations.
- Dees, J.G. (2001) The meaning of ‘social entrepreneurship’. Center for the Advancement of Social Entrepreneurship, The Fuqua School of Business, http://www.caseatduke.org/documents/dees_sedef.pdf, accessed 10 August 2014.
- Dees, J.G. and Anderson, B.B. (2003) For-profit social ventures. Center for the Advancement of Social Entrepreneurship, The Fuqua School of Business, <http://www.caseatduke.org/news/documents/DeesAndersonCASE.pdf>, accessed 10 August 2014.
- Dubois, A. and Gadde, L. (2002) Systematic combining: An abductive approach to case research. *Journal of Business Research* 55(7): 553–560.
- Eisenhardt, K. (1989) Building theories from case study research. *The Academy of Management Review* 14(4): 532–550.
- Emerson, J. (2003) The blended value proposition: Integrating social and financial returns. *California Management Review* 45(4): 35–51.
- Esposito, M., Kapoor, A. and Goyal, S. (2012) Enabling healthcare services for the rural and semi-urban segments in India: When shared value meets the bottom of the pyramid. *Corporate Governance* 12(4): 514–533.
- Glaser, B.G. and Strauss, A.L. (1967) *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago, IL: Aldine Publishing Company.
- Goyal, S., Esposito, M., Kapoor, A., Jaiswal, M.P. and Sergi, B.S. (2014) Linking up: Inclusive business models for access to energy solutions at base of the pyramid in India. *International Journal of Business and Globalisation* 12(4): 413–438.
- Hammond, A.L., Kramer, W.J., Katz, R.S., Tran, J.T. and Walker, C. (2007) The next 4 billion: Market size and business strategy at the base of the pyramid, <http://www.wri.org/publication/the-next-4-billion>, accessed 10 August 2014.
- Harris, J.D., Sapienza, H.J. and Bowie, N.E. (2009) Ethics and entrepreneurship. *Journal of Business Venturing* 24(5): 407–418.

- Hart, S.L. and Milstein, M.B. (2003) Creating sustainable value. *Academy of Management Executive* 17(2): 56–67.
- Hoskisson, R.E., Eden, L., Lau, C.M. and Wright, M. (2000) Strategy in emerging economies. *Academy of Management Journal* 43(3): 249–267.
- IFMR (2011) The base of pyramid distribution challenge, <http://cdf.ifmr.ac.in/?publication=the-base-of-pyramid-distribution-challenge>, accessed 10 August 2014.
- Kalam, A.P.J. and Singh, S.P. (2011) *Target 3 Billion – PURA: Innovative Solutions Through Sustainable Development*. India: Penguin Books.
- Kapoor, A. and Goyal, S. (2013) Inclusive healthcare at base of the pyramid (BoP) in India. *International Journal of Trade and Global Markets* 6(1): 22–39.
- London, T. (2008) The base-of-the-pyramid perspective: A new approach to poverty alleviation. *Academy of Management Proceedings* 2008(1): 1–6.
- London, T. and Hart, S.L. (2004) Reinventing strategies for emerging markets: Beyond the transnational model. *Journal of International Business Studies* 35(5): 350–370.
- Mair, J. and Marti, I. (2006) Social entrepreneurship research: A source of explanation, prediction, and delight. *Journal of World Business* 41(1): 36–44.
- Miles, M.B. (1979) Qualitative data as an attractive nuisance: The problem of analysis. *Administrative Science Quarterly* 24(4): 590–601.
- Miles, M.B. and Huberman, M.A. (1994) *Qualitative Data Analysis: An Expanded Sourcebook*. London: Sage Publications.
- Nielsen, C. and Samia, P.M. (2008) Understanding key factors in social enterprise development of the BOP: A systems approach applied to case studies in the Philippines. *Journal of Consumer Marketing* 25(7): 446–454.
- NSSO (2009) NSS Report No. 538: Level and pattern of consumer expenditure, http://mospi.nic.in/Mospi_New/upload/NSS_Report_538.pdf, accessed 10 August 2014.
- Peredo, A.M. and McLean, M. (2006) Social entrepreneurship: A critical review of the concept. *Journal of World Business* 41(1): 56–65.
- Ponterotto, J.G. (2005) Qualitative research in counseling psychology: A primer on research paradigms and philosophy of science. *Journal of Counseling Psychology* 52(2): 126–136.
- Prahalad, C.K. (2004) *The Fortune at the Bottom of the Pyramid: Eradicating Poverty through Profits*. Upper Saddle River, NJ: Wharton School Publishing.
- Prahalad, C.K. and Hammond, A. (2002) Serving the world’s poor, profitably. *Harvard Business Review* 80(9): 48–57.
- Prahalad, C.K. and Lieberthal, K. (2003) The end of corporate imperialism. *Harvard Business Review* 81(8): 109–117.
- Ridley-Duff, R. (2006) Social enterprise as a socially rational business. Social Enterprise Research Conference, <http://www.lsbu.ac.uk/bus-cgcm/conferences/serc/2006/speakers/ridley-duff-serc-2006.pdf>, accessed 10 August 2014.
- Seelos, C. (2010) Theorizing and Strategizing with Models: Generative Models of Business Models. Working Paper WP-857, IESE Business School, Barcelona.
- Seelos, C. and Mair, J. (2005) Social entrepreneurship: Creating new business models to serve the poor. *Business Horizons* 48(3): 241–246.
- Sharir, M. and Lerner, M. (2006) Gauging the success of social ventures initiated by individual social entrepreneurs. *Journal of World Business* 41(1): 6–20.
- Tracey, P. and Phillips, N. (2007) The distinctive challenge of educating social entrepreneurs: A postscript and rejoinder to the special issue on entrepreneurship education. *Academy of Management Learning & Education* 6(2): 264–271.
- Ward, T.B. (2004) Cognition, creativity, and entrepreneurship. *Journal of Business Venturing* 19(2): 173–188.
- World Economic Forum (2009) The next billions: Unleashing business potential in untapped markets, http://www3.weforum.org/docs/WEF_FB_UntappedMarkets_Report_2009.pdf, accessed 10 August 2014.
- Yin, R. K. (2009) *Case Study Research: Design and Methods*, 4th edn. Thousand Oaks, California: Sage Publications.
- Zahra, S.A., Gedajlovic, E., Neubaum, D.O. and Shulman, J.M. (2009) A typology of social entrepreneurs: Motives, search processes and ethical challenges. *Journal of Business Venturing* 24(5): 519–532.

Appendix

Overview of the Social Enterprises

Selco (SE#1)

Selco was launched in India by Dr Harish Hande and Mr Neville Williams in 1995. The focus was on enabling access to renewable solar energy solutions for low-income segments living across the rural and semi-urban areas in India. Selco is credited with bringing about the disruptive business model innovation comprising the door-step financing and door-step servicing. The end-to-end solution-based approach made the solar energy affordable and accessible to the under-served population. By 2012, it created a network of 30+energy service centres, 8+regional offices and impacted the lives of 110 000+households living across the rural areas.

Boond (SE#2)

Boond was launched in India by Mr Rustam Sengupta in October 2010. The focus was on enabling access to renewable solar energy solutions to the low-income segments living across the rural and semi-urban areas in Rajasthan and Uttar Pradesh (India). The business model of Boond focused on enabling energy access to the rural poor by enabling access to the end-to-end energy solutions. This comprised product offering along with the door-step financing and door-step servicing. By 2012–2013, it created a network of self-sustainable 3+energy service centres and impacted the lives of 6000+households living across the rural areas.

Narayana Hrudayalaya (SE#3)

Dr Devi Shetty founded Narayana Hrudayalaya in 2001. Its mission was to deliver tertiary health care to all irrespective of the paying capacity. Its successful business model was driven by continuous process improvement measures related to cost efficiency, accessibility, affordability and availability of the core resources. The success rate of surgeries was comparable to the best hospitals in the world. The business model was scalable and sustainable with high growth rate of revenues and positive cash flow. By 2012, it created a network of 17+hospitals having 6000+beds in India.

E Health Point (EHP) (SE#4)

Rural communities rely on the informal (untrained/mostly non-qualified) health providers, fake/expired medicines and lack access to the diagnostic laboratories. EHP was launched in 2009 to offer a combination of preventive and curative health care to the poor people living across the peri-urban and rural areas. It was set up as a fee-for-service model, which offered core services of clean drinking water, primary health care, medicines and diagnostics. It used modern technologies (including rural broadband, tele-medical software, low-cost point-of-care diagnostics and inexpensive water treatment methods) and de-skilled many aspects of primary care (through standardized procedures and thorough training of local staff) to bring down the costs within the ability/willingness to pay of most rural households. By 2012, it created a network of 7+health-points and 115+water-points across Punjab and Andhra Pradesh. By 2012, EHP provided safe drinking water to 300 000+users daily; telemedicine consultation to 31 000+patients and undertook 17 000+diagnostic investigations.