



ASHOKA INNOVATORS FOR THE PUBLIC

“Hybrid Value Chains: Social Innovations and the Development of the Small Farmer Irrigation Market in Mexico”

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INTRODUCTION

Businesses, particularly those whose products and services address basic human needs such as water, housing and health, can enter low-income markets more effectively and with deeper social impact through partnerships with innovative citizen sector organizations (CSOs). On the other hand, CSOs can scale their social impact significantly if they learn to leverage the infrastructure and resources of large businesses.

The 'Hybrid Value Chain'TM (HVCTM) model that we are describing is systemically transforming the relationships between the business and citizen sectors based on mutual economic and social value creation. At the core of this new approach is the assumption that many social innovations are relevant to businesses pioneering the "Base of the Pyramid" (BoP) and that the social entrepreneursⁱ who have developed these innovations are natural partners for these businesses. This implies that succeeding at the BoP requires inventing a new form of doing business and an unprecedented level of business-social congruence. It is important to note that HVCTM partnerships are distinct from typical philanthropic/ corporate-social-responsibility collaborations. Instead, they are based on profits for all partners to ensure long-term sustainability and on the premise that companies and social entrepreneurs can interact as equals.

We start by highlighting the recent growth of the citizen sector and introduce principles emerging from the work of social entrepreneurs serving low-income families through market-driven approaches. This sets the stage for presenting an initiative that we are currently piloting to deliver irrigation systems to small farmers in Mexico - a case that illustrates the nature of a

HVC™ and its benefits for the actors involved. Conceived and facilitated by Ashokaⁱⁱ this experience is the result of a partnership between two social entrepreneurs and Amanco, one of the leading water system companies in Latin America. While based initially in Mexico, the model has the potential to rapidly expand to other countries.

We conclude by summarizing the challenges ahead and Ashoka's strategy to contribute to the breakdown of the main barriers to enable business and CSOs to establish HVC™ partnerships, with the ultimate goal to integrate millions of low-income citizens into the global economy in a way that their economic rights as both producers and consumers are recognized and fulfilled.

A. PRINCIPLES EMERGING FROM THE WORK OF SOCIAL ENTREPRENEURS

The last three decades have seen the emergence of millions of CSOs around the worldⁱⁱⁱ. Many of these CSOs have developed more experience than businesses - especially large businesses - in delivering products and services to low-income consumers and producers. In addition, social entrepreneurship as a global phenomenon has sparked an extensive array of diverse social networks - many invisible to the uneducated eye^{iv}. These social networks constitute the early stages of an infrastructure that specializes in serving the poor, one that could be leveraged by businesses as they enter these new markets.

Market-based Social Innovations and some of the emerging principles

Ashoka's experience in distilling the main principles^v emerging from the work of social entrepreneurs advancing market-based social innovations has resulted in the articulation of the three basic principles described below. Each one of them is based on the recognition of the three main factors that make low-income markets fundamentally different: limited individual purchasing power of potential clients; complexity, given that is a high volume business based on small individual transactions; and poor understanding of the human and social capital of low-income communities. The most successful social entrepreneurs have creatively addressed these factors and developed scalable solutions.

Principle #1. Design products and services that tap into the wealth of the poor: transforming the apparent scarcity of means into multiple opportunities by capitalizing on the resources already available to low-income communities.

Principle #2. Change radically the logic behind your business model: succeeding in reaching scale requires re-thinking each step of the value chain from production and distribution to pricing, promotion and delivery to end consumers.

Principle #3. Leverage the power of communities as both consumers and producers: in a way in which interventions that contribute to increasing the income of small producers and micro-entrepreneurs have the synergistic effect of increasing the demand for goods and services of low-income families.

These principles represent new standards that are meant to inspire and guide future initiatives. As social entrepreneurs continue scaling-up their social innovations, they become valuable partners for companies. But as we describe in the next section, it is necessary to develop a new framework to enable business/social partnerships where we need to carefully balance social impact and profit-making goals.

B. DEVELOPING THE SMALL-SCALE FARMER IRRIGATION MARKET IN MEXICO

Understanding Small Farmers

Well over 1 million small Mexican farmers with less than 4 hectares of land currently live in poverty because of physical and financial lack of access to productive technologies including irrigation systems. They are underserved by irrigation companies and by financial institutions, neither of whom currently see them as a profitable potential market. Combined, these small farmers represent over 2 million hectares of land in Mexico. If those close to a water source would be able to afford the right irrigation solutions, the market for irrigation system could be as large as US\$2 billion in Mexico alone.

These small farmers typically engage in a combination of subsistence farming and cash crops. They struggle to access markets outside their immediate location. In addition, due to the lack of available options, they rely on inefficient methods to water their crops including field flooding, hoses with holes, and manual labor. These methods are also significantly wasteful and damaging to the environment^{vi}.

Access to irrigation technology could dramatically change the lives of small farmers by doubling or even tripling their incomes, depending on the crops and the location. Moreover, irrigation

could enable farmers to plant higher-value crops and time their production with the best market prices.

Contrasting Irrigation Market Segments

Current business models cannot be easily adapted to reach smaller-scale farmers in Mexico due to fundamental differences in the needs and requirements of these segments (see Figure 1). While specific to the Mexico case, the scenario described here is applicable across the developing world.

One key factor is the current cost structure of distributors whose margins mainly come from the tailored solutions they design for large farms. In contrast small farmers need cheaper and more standardized solutions. Even if Amanco's current distributors were equipped to make this shift, they currently have no relationship with small farmers and therefore would need to learn about this new market. Another critical dimension with BoP markets is that companies need to consider the complete value chain including financing and commercialization of agricultural products in order to unlock the demand. Nevertheless, these value-added services are generally beyond the core competencies of current service providers in the irrigation sector.

Designing Hybrid Value Chains™ that Serve Small Farmers

Given the sizeable irrigation market opportunity and its social impact potential, an increasing number of companies are interested in the BoP market. However, it is clear that a new way of

doing business is required to create economic and social value. This new approach should combine the core competencies of irrigation companies and social entrepreneurs who can provide the required value-added services at lower cost.

Ashoka is currently piloting this new type of partnership in Mexico in collaboration with Amanco, a leading company in water systems in Latin America, and two Ashoka Fellows – Arturo Garcia and Juan Jose Consejo - who already work with large networks of small farmers.

This convergence of agendas and resources is creating a novel model for companies to enter BoP markets and for CSOs to achieve greater social impact. This new type of “win-win-win” partnership that we call “Hybrid Value Chain™ (HVC)” draws on each sector’s relative strengths including technology, investment capacity or logistics for the business sector - and deep understanding of low-income consumers; grassroots networks in rural areas; experience of introducing social change; and perhaps most importantly, the ability to mobilize local players to provide comprehensive solutions for the citizen sector.

As shown in Figure 2, by leveraging the social networks of social entrepreneurs in farming communities, Amanco will be able to enter the small-farmer market faster and more cost-efficiently while strengthening their positioning as an innovator in the corporate responsibility space. On the other hand, for Garcia who has been looking for ways to advance the sustainability of farmer cooperatives in his state of Guerrero, irrigation systems and value-added services like access to markets can help him reach this goal. For Consejo whose passion is water conservation, irrigation systems offer small farmers an environment-friendly alternative to water

their crops. Additionally, the commissions on sales that both CSOs receive can be used to expand the delivery of complementary services by their organizations. Amanco has indeed committed to provide participating social entrepreneurs wholesale prices equivalent to that of their top distributors. While part of this discount is passed on to final clients - the farmers - the remaining discount supports operating costs and will generate a profit for the CSO when sufficient scale is reached.

Although Ashoka and its partners are still in the development stage of this new business model, they have already made great strides in building a foundation for success. The overall target for the first year of the pilot implementation is US\$ 1,000,000 in sales by the end of June'06. Main accomplishments to date include 11 demonstration plots installed at key locations to allow potential clients to experience the benefits of irrigation systems, 35 hectares sold and installed, and a significant sales pipeline of 465 hectares for which quotes are available and 1,000 hectares in the design stage. The availability of pro-forma quotes is enabling to mobilize over US\$500,000 in government financing^{vii} through the combination rural credit financial institutions and subsidies for irrigation. In addition, three strategic alliances have been formed to ensure the commercialization of the additional production.

C. LESSONS LEARNED IN BUILDING HYBRID VALUE CHAINS™

Building a HVC™ is not simple, as Ashoka's irrigation initiative in Mexico has demonstrated. The process is also not linear, but rather is iterative with many overlapping steps and multiple

lessons learned. In this paper, we use a 3-stage process to describe the evolution of the partnership and key lessons learned so far.

Stage #1: Engagement of Amanco and social entrepreneurs

This first stage is centered in gaining the company and the social entrepreneurs' commitment to participate in the HVC™ partnership. From the perspective of the company, it starts by recognizing – at the highest management level - that there is a profitable market in the “BoP” and that social entrepreneurs have a valuable role to play. From the social entrepreneurs' perspective, the starting point is the realization that their social initiative can achieve higher impact and become sustainable by partnering with a private company. Once the initial buy-in occurs, both partners are ready to focus on the multiple innovations required along the value chain.

In the case of Amanco, the relationship with Ashoka began in 2003 with a conversation between the chairmen and founders of Ashoka, Bill Drayton, and Grupo Nueva (Amanco's parent conglomerate), Stephan Schmidheiny who was initiating the process of integrating the vision and values of his businesses and philanthropic activities and welcomed the opportunity to brainstorm about new business/social dynamics.

The process of finding, selecting and engaging the social partners started with determining the key selection criteria including access to large groups of small farmers, organizational capability, geographical location, openness to innovation, and “fit” with the organization mission. A series

of meetings and field visits that Ashoka organized to enable social entrepreneurs and Amanco to get to know each others was critical.

The most important lesson learned in this stage was the need to intricately link the products sold (i.e. irrigation systems) with the mission of the social entrepreneurs. A corollary to this lesson is the recognition that the HVC™ is not right for all social entrepreneurs and that there is a steep learning curve for most organizations. External financial and specialized human resources as well as appropriate systems and work processes are required. In addition to management support, Ashoka provided soft loans to Garcia and Consejo for the launch period as they did not qualify for small business loans due to their lack of collateral and inability to meet other stringent lending requirements.

Stage #2 Building of trust, common goals, and vision for the HVC™ partnership

The building of trust, common goal and vision has been an on-going process. It started with the development of a joint implementation plan and a letter of intent outlining the ‘business deal’ and the terms of the basis for the HVC™ partnership (See Figure 2).

But beyond the legal and business requirement, the critical learning in this stage involves the necessary *mindshift* for all partners. An HVC™ partnership requires that the partners not only view each other differently – but view themselves differently as well. This happens organically but can be facilitated through a few factors:

1. involvement of an outside facilitator to accelerate the trust-building process;
2. systematic reflection process reflection on key learnings, achievements and bottlenecks;

3. evaluation measurements that are periodically revisited; and
4. external mandates and incentives that create pressure to perform.

Ironically, the fact that Amanco had a strong Corporate for Social Responsibility program generated some initial hesitation on the part of the local Amanco team to embrace a commercial approach like HVC™. However, the arrival of Francisco de la Torre as the new CEO accelerated the process of mobilizing the resources needed while the program immediately benefited from his extensive retail and consumer goods industry experience.

Today, Amanco Mexico has assigned a full-time director to oversee the pilot and an installer based in Guerrero, which enables to accelerate the pace of implementation. Other lessons learned include the importance of a company team leader reporting directly to the CEO as well as human resources that can focus exclusively on the new business model – rather than being subjects to the pressures of traditional business. Finally, in hindsight there is also the need to realize that any kind of innovation requires time to reach critical mass and capture the interest of key players in the company.

Stage #3: Development and simultaneous testing of business model

This stage constitutes the core of the HVC™ innovation process and involves the tactical building and simultaneous testing of the business model. As such, it has required a significant amount of operational learning for all parties involved.

When the Amanco technical team visited small farmers, they immediately started to think about adapting their traditional offers to the specifics of this market and significantly lowered the cost per hectare in the process. Through ideas like standardizing components and shared pumps, they have been able to cut the cost per hectare in half without sacrificing quality. In addition, new offerings such as greenhouses are being developed based on small-farmers' needs.

While we initially envisioned the role of social entrepreneurs as alternative distributors specialized in small farmers with a focus on demand aggregation and financial resources mobilization, our collective understanding of what their role was going to entail greatly underestimated the amount of effort required. For instance, the original financing plan included a 10% in cash contribution from the farmer coupled with a 50% government subsidy and a 40% federal government agricultural loan. However, in practice, the government monies have required a Herculean bureaucracy-breaking effort to secure. This has created an additional challenge to the progress of the pilots. Garcia has solved this major stumbling block by partnering with Isabel Cruz, an Ashoka Fellow specialized in rural finance, to establish a local financial intermediary. Instead, Consejo has opted for focusing on lower price solutions to be less dependant on access to credit.

D. PATH FORWARD: SCALING-UP IMPACT AND SPREADING HVC™

In 2006, the focus of the Ashoka is to achieve significant success on the first two HVC™ pilot programs on small-scale irrigation and affordable housing in Mexico.

One of the key steps in order to scale-up these pioneering efforts at a national level is to develop the capacity to identify and train a highly selective number of CSOs by adapting Ashoka's Search & Selection Process^{viii} (S&S) for leading social entrepreneurs to the specific requirements of the HVC™ partnerships. Another complementary approach will be to analyze the potential of micro franchise model to scale up current operations of Garcia and Consejo.

On the other hand, because the ultimate long-term goal of the FEC initiative is not only the success of these pilots in Mexico but the widespread adoption of HVC™ in various sectors, it is essential to develop the ability to capture new learnings, compare them across industries and share them with all the necessary actors that need to be engaged for HVC™ to spread such as media, management consulting firms, businesses, CSOs and social entrepreneurs.

While the work of C.K. Prahalad and Stuart Hart is increasingly capturing the attention of companies around the world, it is still necessary to translate these concepts into a long-term win-win-win for CSOs. Widespread skepticism still prevails among CSOs about the claim that the entrance of companies in these markets will by itself contribute to alleviate poverty. There is also skepticism in business circles about how rapidly CSOs will be able to translate their skills into effective resources in a for-profit market development context. But most actors involved in BoP efforts agree that a concerted effort of both sectors, as well as governments, is needed to ensure that access to products and services results in positive social change for millions of people.

As shown in Figure 3 below, Ashoka's strategy is based on the assumption that a "win-win-win" scenario will make this type of impact possible. Achieving this scenario at a significant scale to shape the emergence of an inclusive global economy will require a profound change in the roles of low-income individuals, CSOs and businesses.

Once key actors go through the "mindshift" needed to realize how attractive this new market opportunity will become, competition and commitment to social change will continue to advance the most effective people, businesses and social institutions. An essential element in this process – not yet in place -- will be the emergence of leading investors willing to provide the range of for-profit and non-profit capital sources needed for HVC™ to spread.

FIGURE 1. ABOUT PAGE 6

Comparing How Market Segments are Currently Served Along the Value Chain

Irrigation Subsector Value Chain Steps	Medium and Large Farmers Market Segment currently served by Amanco	Small Farmers or BOP Market Segment
Product Development	<ul style="list-style-type: none"> • State-of-the-art solutions designed for large farmers readily available and affordable 	<ul style="list-style-type: none"> • Most solutions available in the market are not affordable and/ or are not designed to address small farmers' needs • Reliance on “makeshift” solutions (e.g., widespread use of plastic hoses or water channels made with shovels by hand)
Production	<ul style="list-style-type: none"> • Highly efficient and productive manufacturing facilities 	<ul style="list-style-type: none"> • High relative cost of technology inputs given the type of home-made solutions
Distribution & Logistics	<ul style="list-style-type: none"> • Network of 200 specialized value-added resellers providing customized irrigation solutions fitting the specific conditions of each farmer's terrain 	<ul style="list-style-type: none"> • Distribution channels are informal and highly inefficient • Inputs are bought through small local retailers. Prices are high due to numerous intermediaries
Sales & Marketing	<ul style="list-style-type: none"> • Purchasing decisions are made on the basis of technical specifications, not price • Marketing materials used are highly technical 	<ul style="list-style-type: none"> • Purchasing decision requires first persuading the farmer that she can have a more profitable farm • Need for tailored marketing materials focusing beyond technology
Financing	<ul style="list-style-type: none"> • When needed, financing is secured directly by clients through local commercial banks 	<ul style="list-style-type: none"> • Conditions of financial institutions or approval process are too complex and costly. A financial “broker” is needed
Marketing of Agricultural Production^{ix}	<ul style="list-style-type: none"> • Client are well informed about market conditions and maintain direct relations with potential buyers 	<ul style="list-style-type: none"> • Clients are dispersed and require an intermediary that aggregates production and creates market linkages

FIGURE 2. ABOUT PAGE 10

Explaining the Amanco/Ashoka Hybrid Value Chain Partnership

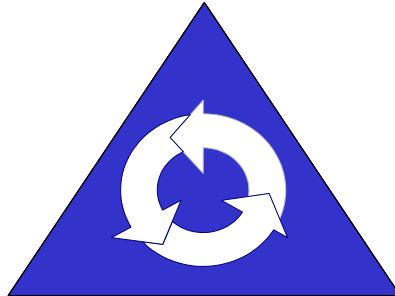
	Background	Role	Deal
<p>Small-scale Farmer Becomes an empowered consumer and increases her income significantly</p>	<ul style="list-style-type: none"> • Over 1 million small farmers with less than 4 hectares could benefit in Mexico alone • Major opportunity to increase productivity and reduce rural poverty 	<ul style="list-style-type: none"> • Learn about credit opportunities for investment in farm; provide required documents • Make purchase decision and pay 10% of costs upfront in cash 	<ul style="list-style-type: none"> • Access to irrigation systems at fair price plus value-added services like financing, commercialization and technical assistance • Doubled or tripled incomes
<p>Amanco Water distribution company opens an underserved market</p>	<ul style="list-style-type: none"> • Leading Latin America company providing water solutions • Part of Grupo Nueva conglomerate. 2004 revenue: US\$ 1,300 million • Chairman mandate that 10% of revenues come from BOP by 2008 	<ul style="list-style-type: none"> • Product and technical training • Pricing and quotations • Marketing support (e.g. materials) 	<ul style="list-style-type: none"> • New rural distribution channel for serving small farmers profitably • US\$ 1 million in sales during the pilot phase
<p>Social Entrepreneurs Serve small farmers while creating sustainable sources of revenues</p>	<ul style="list-style-type: none"> • Arturo Garcia. Organization: RASA. Dedicated to increasing economic power of small farmers in coastal Guerrero area • Juan Jose Consejo. Organization INSO. Dedicated to water conservation in Oaxaca area 	<ul style="list-style-type: none"> • Sales and promotion (aggregating demand) • Technical support to farmers • Leveraging gov't financing • Partnerships with crop-purchasing companies and trainers in organic farming 	<ul style="list-style-type: none"> • Larger social impact and commissions to be invested in other programs that require subsidies • 35% discount on list price creates commissions
<p>Ashoka Acts as a business/ social broker</p>	<ul style="list-style-type: none"> • Global organization dedicated to creating a globally-integrated and competitive citizen sector • 1,700 social entrepreneurs (Ashoka Fellows) in global network 	<ul style="list-style-type: none"> • Facilitates Amanco and social entrepreneurs' partnership • Barrier-remover/problem solver • Systematizes learnings 	<ul style="list-style-type: none"> • Contributes to accelerated social change • 1.5% commission on total sales of each new rural distributor for 3 years

FIGURE 3. ABOUT PAGE 14

Ashoka's vision of new roles for low-income individuals, businesses and citizen sector organizations

Low-income consumers both benefit and help to shape local to global economies

Businesses deliver affordable products and services to low-income consumers as part of their core business strategies



Social organizations succeed in creating and spreading sustainable and innovative solutions to serve low-income communities

Competition and commitment to social change continue to advance the most effective ideas, people, businesses and social institutions.

Endnotes:

ⁱ For more background on social entrepreneurship, see: David Bornstein. How to change the world: social entrepreneurs and the power of new ideas. Oxford University Press, 2004

ⁱⁱ Ashoka is the largest global community of social entrepreneurs. Since its establishment 25 years ago, it has invested in more than 1,700 social entrepreneurs in 62 countries. Ashoka pioneered the ‘social venture capital’ approach as a way to address major social challenges with systemic responses. Ashoka Fellows are selected for their innovative and practical ideas to address social needs. The work described here is part of Ashoka’s Full Economic Citizenship initiative, a global program designed to enable and mobilize commercial partnerships between social entrepreneurs and businesses in a way that sustainable and profitable markets are developed while delivering social impact. www.ashoka.org

ⁱⁱⁱ With an estimated volume of resources of over US \$1 trillion and 19 million jobs at the global level (excluding religious congregations), the non-profit sector is already equivalent to the eighth-largest economy in the world. Source: “The 21st Century NGO: In the Market for Change.” SustainAbility, UN Global Compact & UN Environment Program (UNEP) Publication, London, 2003. See www.sustainability.com

^{iv} These social networks range from the most basic form of human interaction at the grassroots community level (ie. school, church, health center, parks) to more sophisticated array of actions undertaken by citizen groups to mobilize communities towards a common goal. Examples include small farmer cooperatives, reproductive health programs, youth learning initiatives, environmental groups and many other forms of community organization to address a social issue.

^v For a detailed description of the framework behind this principles, please see “A Framework for Developing Market-Based Strategies that Benefit Low-Income Communities” by Valeria Budinich. See Changemakers, Ashoka’s online magazine www.Changemakers.net (August 2005)

^{vi} Of the 4.9 million gallons of water used for irrigation annually - 32% of the total water usage in Mexico - more than 60% will be lost due to the inefficiency of agricultural irrigation systems.” Source: “Agricultural Irrigation Equipment” report, U.S. & FOREIGN COMMERCIAL SERVICE AND U.S. DEPARTMENT OF STATE, January 30, 2003.

^{vii} Under the present system most of the Mexican government subsidies for irrigation go to medium and large scale farmers. This situation will change for small farmers when a well established company like Amanco is providing the pro-forma quotes required and a system to secure the remainder of the financing is in place.

^{viii} See www.ashoka.org for a description of the Search & Selection Process of Ashoka Fellows.

^{ix} Some value added steps were omitted in order to simplify the analysis. For instance, no reference is made here to agricultural inputs and farm management practices.