

Networks for Social Enterprise: Applying a systems perspective to case studies in Latin America

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ABSTRACT

The purpose of this research is to enhance understanding of social enterprise in emerging markets, highlighting key success factors. A general systems perspective is applied to comparative case studies in the Dominican Republic and Mexico, revealing interrelationships among social entrepreneurs, international development organizations, government agencies, and other institutions. Results support the value of Actor Network Theory as a means of understanding social entrepreneurship processes. We conclude that the interorganizational networks among these partners play a vital role in the scale and scope of social benefits achieved. The social entrepreneur's network of learning process enablers, knowledge providers and co-creators emerges as an essential key success factor.

Key Words: Social Entrepreneurship; Actor-Network Theory; General Systems Theory; Knowledge Management; Case Studies in Latin America

1. Introduction

While there is growing recognition among businesses, governments, non-governmental organizations (NGOs), and multilateral donor agencies that their support of social enterprise efforts can lead to substantial benefits for disadvantaged and underserved populations, current research has not yet matured sufficiently to offer conclusive evidence regarding optimal forms of involvement, system components, or the key factors required for social enterprise success.

In order to enhance our understanding of these important issues, researchers are applying a grounded theory approach, focusing on individual cases that describe the experiences of social entrepreneurs in the field. Well-known among these is a case series written in support of Prahalad's (2005, 2) collaboration framework highlighting the 'interconnectedness' of entrepreneurs and organizations required for social and economic development at the Bottom of the Pyramid (BOP).

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Based on this work, four actors and their interconnectivity are depicted: 1) BOP consumers and BOP entrepreneurs; 2) Private enterprises; 3) Development and aid agencies; and 4) Civil society organizations and local governments. Although this framework does not lead to the description of a comprehensive set of system components, results do indicate that economic development and social transformation are interconnected and therefore private entrepreneurs, development and aid agencies, citizen organizations and governments must work together if the social enterprise is to succeed.

So, while it is generally accepted that social enterprises are more likely to succeed if set within a network of supporting organizations, the roles of system actors and their contributions to social innovation are not adequately described nor understood (Chell, Nicolopoulou, and Karataş-Özkan 2010). In this light the emergence of the Actor-Network Theory (ANT) within the study of entrepreneurship holds promise as a means for explicating the evolving and complex process of social entrepreneurship. The ANT perspective is based on the understanding that entrepreneurship is enacted not by single individuals, but through interactions of multiple actors in a social, relational network (Korsgaard 2011). In the absence of such a network perspective it would be difficult to draw conclusions regarding key success factors in the social enterprise process or to make recommendations about crucial interventions that could be offered by facilitating organizations. This hinders opportunities for policy makers, supporting organizations and social enterprise leaders to transfer and adapt successful models across national borders.

Social enterprise can occur in any society, but the obstacles to success are far greater in developing regions. In this context “social entrepreneurs have to reach far more people with far less money, so they have to be especially innovative to advance solutions at scale” (Bornstein, 2004, 2). Particularly in these regions research has been weighted heavily toward individual case examples of success or failure that have yet to be incorporated into an overarching framework of actors, organizations and their interactions.

Therefore, the purpose of this research is to enhance our understanding of key success factors for social enterprise from a systems perspective, highlighting the role of interorganizational networks. The study focuses on two case studies in Latin America, a region of the world frequently overlooked in social enterprise literature. In-depth, comparative case studies of social entrepreneurship in Mexico and the Dominican Republic are compared and contrasted. The authors selected these two countries as emerging markets in Latin America that face enormous challenges in assuring that economic opportunities are open to their poorest citizens. According to the Consejo Nacional de Evaluación de la Política de Desarrollo (CONEVAL), 46% of the Mexican population lives in poverty, with 10.4% living in extreme poverty, less than \$1.25 per day (Associated Press 2011). In the Dominican Republic, 41% of the population lives in poverty (Dominican Today 2010a) with about 9.6% living in extreme poverty (Dominican Today 2010b). Despite enormous hurdles, social enterprise programs are growing in in both countries; however, little is known about their current levels of success or failure.

We begin with an overview of the global social enterprise movement and a summary of current research. Next, our research objective is presented in the context of general systems theory. Using a systems framework as a guide, we provide comparative case studies of two social enterprises in Mexico and the Dominican Republic. Discussion revolves around the significant factors critical to success in these cases. This research demonstrates the value of applying a systems framework to the analysis of individual cases in order to provide a more comprehensive view of social entrepreneurship and its interorganizational network. As expected, the role of the enterprise’s interorganizational network emerges as an important factor. Results support the value of the ANT perspective in understanding social entrepreneurship. Notably, the social entrepreneur’s network of learning process enablers, knowledge providers and co-creators emerges as a key success factor.

The paper closes with implications for entrepreneurs and their supporting partners within social enterprise networks. Our findings should be of interest not only to entrepreneurial leaders in emerging markets, but also to researchers, policy-makers and business leaders around the world who wish to deepen their understanding of the key success factors in social enterprise.

2. Current status of social enterprise research

Definitions of social enterprise abound. Some authors emphasize the individual characteristics required to create social transformations that improve lives, particularly of disadvantaged populations, on a large scale (Bornstein 2004). Others view social enterprise development as a “process of identifying, evaluating and exploiting opportunities aiming at social value creation by means of commercial, market-based activities,” (Bacq and Janssen 2011, 376).

Those who emphasize the economic sector understand that social change must be financially sustainable. However, social enterprises differ from ordinary businesses in that profits are not the only objective; human capability building, empowerment of disenfranchised people, improvement of the quality of people’s lives, and/or a sustainable environment account for a double- or even triple-bottom line (Dacanay 2004). So, others argue that the poor would be much better served through their integration into the market system as producers rather than consumers (Karnani 2007). In this light, a working definition would be that social enterprise is a network of organizations and individuals that cooperate to improve the quality of their lives through profit [generation and] distribution through profit-sharing mechanisms; social entrepreneurs are viewed as the leaders and practitioners within this system, which may include governments, NGOs, cooperatives and private sector businesses (Morato 1994) .

A crucial element for success in this process is knowledge management within the social enterprise and among its network of organizational partners. There is increasing evidence that strong, sustained networks play a significant role in expanding the scale of social impacts and thereby the rate of return on social enterprise investments (Kramer 2005). Given this significant role for knowledge networks, experimentation with network models has developed over the past decade among leading international organizations; however, an understanding of knowledge networks for social enterprise lags behind its development within the traditional business sector. Over the past decade multilateral development organizations have begun to experiment with formal knowledge networks to create and share knowledge across organizational boundaries so that “knowledge can be put into action” (Creech and Willard 2001, 8).

Knowledge management can be defined as effectively connecting “those who know with those who need to know, and converting personal knowledge into organizational knowledge” (*Economist* 2000, 20). Knowledge management enables an organization to “accelerate the rate at which it handles new market challenges and opportunities, and it does so by channeling its most precious resources, collective know-how, talent and experience – intellectual capital” (Frappaolo 2006, 4). Until recently, the research focus has been on internal connections and the ability to manage intraorganizational flows of intellectual capital. However, there is growing recognition that the unit of investigation must expand to examine interorganizational networks as “increasingly, innovation no longer takes place within individual firms, but within networks of organizations” (de Man 2008, 1).

“...Networking is a fundamental part of entrepreneurial behavior” (Baines, Bull, and Woolrych 2010, 52). Successful social entrepreneurs depend significantly on interorganizational networks to achieve social goals (Shaw and Carter 2007, 430). According to Lammers et al. (2008, 176) “networks with efficient knowledge management processes are able to innovate more and faster.” In the

international arena such networks have positive impacts on knowledge creation (Tolstoy 2010). Case studies in developing countries reveal that network systems enabling innovation, co-creation, and learning is essential (Prahalad 2005).

While the role of innovation as a factor in social entrepreneurial success is an accepted concept, it is not well understood (Chell, Nicolopoulou, and Karataş-Özkan 2010). How innovation and entrepreneurship “emerge in a social enterprise context” requires further examination (Diochon 2010, 94). A better understanding of interorganizational networks within the social enterprise system would help to elucidate this important factor.

Through an extensive review of knowledge management literature, van Burg et al.(2008) identified eleven concepts for increasing the efficiency and effectiveness of interorganizational networks. It is instructive to consider these concepts within the context of a social enterprise network. Eight concepts highlight tangible strategies that can be used to enhance knowledge flows. Three others represent characteristics for enabling knowledge networks that are less tangible, more complex, and far more difficult to inculcate.

3. Research objective

The purpose of this research is to enhance understanding of key success factors for social enterprise from a systems perspective, highlighting and comparing interorganizational networks within two social enterprises in Latin America. Social enterprise is a process requiring tangible resources, such as financing and equipment, but more importantly is the infusion of knowledge and know-how – intellectual capital in all its forms – that enables successful social enterprise performance. Given the need for a systematic approach to the study of social enterprise, we intend to move beyond ad hoc case study research to provide a more comprehensive view. It is to this challenge for better understanding of the social enterprise system and its interorganizational network that this study is directed. Research questions are as follows:

1. What are the social enterprise system’s ‘drivers?’ (Social and financial goals.)
2. Who are the actors in the system? (Social entrepreneurs, social innovators, and social enterprises; private and public sector facilitating organizations)
3. What are the crucial inputs for success? (Tangible and intangible resources?)
4. How do inputs flow through the system’s network to yield sought-after outcomes?
5. What is the role of interorganizational alliances in developing and sharing knowledge throughout the social entrepreneurship process?

4. Methodology: Utilizing the multiple case method within a systems perspective

Unlike logico-deductive research methods, referred to as "normal science research" (Eisenhardt 1989, 549), case research methodology has not yet been canonized by the academic community. Supporters of case research do not agree on universally accepted procedures, but rather are distributed along a continuum with those at one extreme calling for a thorough review of relevant literature and hypotheses generation where possible prior to research initiation (Yin 2003).

Those at the other extreme believe that immersion in the case environment should be untainted by theories and hypotheses that could bias one's analysis of empirical evidence (Glaser and Strauss 1967). Despite this fundamental disagreement on the starting point, there is considerable agreement that, once begun, the processes of empirical investigation, literature review and hypothesis generation are iterative, allowing the researcher's perspective and knowledge to mature as the study progresses (Eisenhardt 1989). In an exploratory study such as this, it would be premature to identify

propositions or hypotheses at the outset (Berg 2004). In fact, rather than beginning with research hypotheses, a good case research study may terminate with the generation of hypotheses, concepts, conceptual frameworks or propositions (Eisenhardt 1989, 675). This is the process as it has evolved during this multiple-case study project.

Applying a systems perspective to case studies of social enterprise leads the researchers to analyze significant 'real world' elements that are inherent to the process. This process is consistent with Actor-Network Theory which supports the use of case-based research as the "primary method" for understanding the social enterprise process (Korsgaard 2011). Through this lens we can sort through a seemingly disordered and complex situation in order to discover the underlying system, the elements that comprise it and their interrelationships. "First, we must find the 'nature of the beast:' what is meant by 'system' and how systems are realized that the various levels of the world of observation. This is systems ontology" (Bertalanffy 1972, 21-24). According to Churchman (1979), the systems approach leads researchers to consider the whole system, including its environment, objectives and the chain of activities that support its outcomes. For the purposes of our work, we define the following system components:

1. Social enterprise objectives may include an emphasis on economic opportunity and income generation, human capability building, and/or community development.
2. Actors within the development process are likely to include individuals and organizations that facilitate, initiate and transform inputs into capability building and wealth creation. Likely players in the system include individual entrepreneurs, employees and enterprise partners organized through cooperatives, small to mid-sized businesses, large national firms, multinational corporations and NGOs.
3. System inputs are the essential ingredients that enable actors to progress. These include tangible resources such as financing, fixed assets including plant and equipment, and human resources (skilled and unskilled). But inputs also include intangible assets that are vital to the social enterprise's success: Intellectual capital (entrepreneurial ideas, innovations, know-how, and management/technical skills. Education and training are inputs, but can also be viewed as media for the transfer of knowledge from one part of the social enterprise network to another.
4. Outputs provide one measure of the system's productivity. Results may be measurable in quantitative terms; other results must be qualitative. Either way, outcomes can be used to evaluate the system's performance. Results can be compared to the original objectives.
5. The transfer network depicts the flow of system inputs through the system and can demonstrate that degree of inter-connectivity among the actors, from facilitation and business initiation to transformation and results. A major component of this transfer network is the knowledge network which will be highlighted where possible in this research.
6. Each social enterprise system exists within a national macro-environment, comprised of socioeconomic and political factors that influence and/or control activities and outcomes.
7. The time dimension represents the progression of social entrepreneurship. Considerations include the historical context, current conditions, and future prospects.
8. Feedback mechanisms provide a means for comparing results to objectives, enabling the actors to improve system performance by learning from successes and failures. This process may be carried out concurrently or at the end of certain periods of performance.

The multiple-case method is appropriate for the study of complex systems and for exploratory research initiatives; therefore, it fits the current study's research purpose well. In multiple case researches, primary responsibilities of the researcher are to define the study's purpose and devise cross-case study questions that will be used to identify common themes, similarities, and trends that emerge as a result of data collection. Such a protocol increases reliability of case study research results (Yin 2003). Multiple case research methodology is the most important qualitative research

methodology in international arena to date (Pauwels and Matthyssens 2004), and for good reason. It enables researchers to move beyond the confirmation of existing theories, to develop new ones, or to extend and refine existing theoretical frameworks by “filling in what has been left out” in terms of key components and relationships (Locke 2001, 103).

Data gathering included primary research in the field, including semi-structured interviews with social enterprise initiators and managers, complemented by publicly available information, including published articles, government reports, and other sources. Information gleaned in this fashion is used to generate a comprehensive, system-wide description of the social enterprise process. Based on these comparative case studies, the authors construct a social enterprise model that incorporates the eight essential factors outlined above.

5. Applying a systems approach to comparative case studies in Latin America

5.1 *Asociación Dominicana para el Desarrollo de Mujer (ADOPEM)*

The Asociación Dominicana para el Desarrollo de Mujer (Dominican Association for the Development of Women) was established in the Dominican Republic in 1982 as an NGO with the purpose of improving the economic conditions of poor women and their families in urban and rural areas through access to micro-lending and to capability-building through training. ADOPEM was founded by sixteen businesswomen and other professionals led by Dr. Mercedes de Canalda Esq.¹

By 1999 ADOPEM’s Board recognized that its ability to expand its services was limited by lack of access to sufficient sources of capital. Continued reliance on donations and international assistance would not lead to sustainable, long-term growth. If ADOPEM were to continue to serve disadvantaged women on a larger scale, it would be necessary to change its business model from a non-profit to a for-profit regulated financial institution (RFI). Dr. Canalda demonstrated her skills in knowledge management throughout this process. She began with expert advice received in the form of a feasibility study for strategic planning purposes financed by the European Community Support to Private Sector Development Program. “This feasibility study became our Bible,” according to Lic. Canalda de Beras-Goico (Women’s World Banking 2010a, 3). In addition, Dr. Canalda gathered advice from Latin American ‘trailblazers,’ those within the micro-finance sector. These included such organizations as the Inter-American Development Bank, BancoSol, Centro de Fomento a Iniciativas Economicas (FIE), PRODEM, Caja Municipal de Ahorro y Crédito (CMAC) de Arequipa, and ProCredit (Women’s World Banking 2010a, 3).

The transformation period for ADOPEM covered several years; however, by 2004 a new structure was designed to fit the demands of financial sector investors while at the same time adhering to the organization’s mission to improve the lives of poor women. The structure was composed of two complementary entities: ADOPEM NGO and Banco de Ahorro y Crédito ADOPEM, S.A. (ADOPEM Savings and Loan Bank, referred to as Banco ADOPEM). Banco ADOPEM’s focus is on the financial sector, increasing financial products and services, such as savings account options, insurance, remittances and money transfers. Banco ADOPEM utilizes capital from savings to sustain a broader array of financial services, including expanded micro-credit programs, to a wider range of clients beyond its original base of disadvantaged women.

Its partner organization, ADOPEM NGO (also known as Training Institute ADOPEM), provides non-financial services in support of enabling women through vocational and technical training, and also

1. The researchers express their thanks to Lic. Eddy Santana, Manager of Credit and Branches, and Lic. Christopher Brito, Consultant and Coordinator of the Program for New Business, whose experience with ADOPEM has added substantial information to this case study.

provides training in the financial sector. ADOPEM contracts with domestic institutions to deliver this training to ADOPEM clients (ADOPEM n.d.). Specific training is provided to clients in the areas of human resources management, inventory management, marketing and other issues, enabling them to develop administrative and technical skills focused on a broad variety of micro-enterprises such as dressmaking, upholstery, and repairing kitchens and bathrooms (Women's World Banking 2010a, 11). Also, the Institute offers a series of certificates for bank employees and entrepreneurs. Some of Banco ADOPEM's dividends are used to support the Training Institute (Women's World Banking 2010a, 10).

As part of its restructuring process, ADOPEM NGO sold its loan portfolio to Banco ADOPEM and became its majority investor, holding a 59% stake as of December 2008. Other investors included the International Finance Corporation at 18%, and local investors at 23%. Another partner is the European Investment Bank (EIB), with a 1 million euro investment in addition to a large credit line, while two others, the Inter-American Development Bank (IDB) and the Spanish foundation, Cooperación al Desarrollo y Promoción de Actividades Asistenciales (CODESPA), support programs that facilitate the use of remittances for productive activities, including micro-business (Banco de Ahorro y Crédito ADOPEM 2008b).

Noteworthy among ADOPEM's facilitating partners is Women's World Banking (WWB), a global organization headquartered in New York. WWB was established in 1979 with the goal of expanding economic participation, assets and power of low income women entrepreneurs and producers by enabling their access to finance, information and markets. Of importance is its role in building an effective network of 39 micro-finance institutions around the world, and in organizing learning and change networks comprised of leading microfinance organizations and/or banks that are led by women (Harmeling and Austin 2000, 13).

Since ADOPEM's inception, Dr. Mercedes de Canalda has played a leadership role in the WWB knowledge network, serving two terms as Chairman of the Board of Directors of WWB. This significant relationship with WWB has led to substantial benefits for ADOPEM. It utilizes a range of solution concepts in support of knowledge creation and sharing within the WWB global network and internally between ADOPEM headquarters, branch offices, and clients.

ADOPEM's success is visible in the lives of the thousands of women and families who have found a path out of severe poverty through its services. Banco APODEM's clients appear on the United Nations Development Program (UNDP) lists of the best microbusiness entrepreneurs of the year (Banco ADOPEM 2005, 16). Examples of its beneficiaries include Angela María Cruzeta Marte, a dress-maker who received her first loan in 1997, and now provides clothing to more than 23 stores in Santo Domingo. The size her loans have grown as the business has flourished. In 1997 she didn't believe any bank would loan her money since she had no assets to serve as collateral. "When he [the loan officer] came he said, 'Doña Angela, and what are we going to put as a guarantee because you don't have anything?' and I responded, 'I guarantee you with my word that I will comply.' Well, he started making notes and they gave me RD\$4,000'" (Women's World Banking 2010a, 15). Another example is Ana Ramona Martinez, who despite losing everything in a tropical storm that displaced thousands, has reopened her store in Sabana Perdida and is planning to start a Neighborhood Association to support the community in overcoming natural disasters (Banco de Ahorro y Crédito ADOPEM 2008c).

ADOPEM has been recognized by the IDB as one of the top ten micro-lending institutions for greatest impact on the market with loans under \$500.00 and with greatest efficiency, and has received an IDB Award of Excellence in Micro-Finances; it is recognized as a "leading institution" of technological innovations, with special attention given to its use of Palm Pilots (PDAs) for loan risk classification (Banco ADOPEM 2005, 10). In 2009 the IDB awarded Banco ADOPEM first prize for Excellence in Microfinance Outreach for the Latin America and Caribbean region (Andrews 2010, 2).

While contribution to success from any organization's knowledge network is difficult to measure, there are clear indications that ADOPEM's has played a major role. An early example is ADOPEM's adoption of the 1999 WWB technology-based innovation that initiated the use of palm pilots by loan officers (Harmeling and Austin 2000, 7). This pilot program was in partnership with fifteen national affiliates, including ADOPEM. Palm Pilots used by ADOPEM's credit agents contain necessary information about clients, such as their loans, applications, any arrears, and other statistics. This innovation has been recognized for contributing to a substantial increase in the efficiency of loan processing (Banco ADOPEM 2005, 12).

Of particular concern to ADOPEM is that credit services continue to outstrip growth in savings deposits. ADOPEM understands that savings are of central importance since these deposits provide an efficient and low-cost source of capital for their lending programs as well as providing a safety net for the economic well-being of their clients. To motivate women to save, Banco ADOPEM has entered into innovative promotion campaigns. One such program is the Nike Girl Effect: Savings Accounts for Girls, funded through a partnership with WWB and the Nike Foundation; another is a telenovela (soap opera) that is geared to improve financial literacy and understanding of the benefits associated with saving in partnership with WWB and funding from the Gates Foundation (Andrews 2010, 6).

By 2008 ADOPEM was serving 89,000 clients through 160 loan advisors who visit them at their workplaces and in their homes (Santana and Brito 2009). ADOPEM is decentralized through branch offices that extend across most of the Republic's provinces, enabling more efficient working relationships at the local level. ADOPEM's representatives use personal visits to better understand their clients' businesses, including their assets, expenses and cash flow (Banco ADOPEM 2005, 11). Over the past few years Banco ADOPEM has continued to grow at the rate of 30 to 40 percent per year (Andrews 2010, 2).

However, several key challenges remain. One issue closely associated with Banco ADOPEM's status as an RFI is that the organization had to hire additional staff with banking skills, including risk management, market research, and more extensive technical skills (Women's World Banking 2010a). Another issue is that Banco ADOPEM must serve clients across a range of economic classes, both male and female. While it is true that Banco ADOPEM has succeeded in increasing the number of women clients by 62% since its restructuring, the total percentage of women clients has dropped from 88% in 2004 to 77% in 2008 (Women's World Banking 2010a, 9). Banco ADOPEM works to correct this situation by offering innovative products and services that will appeal especially to disadvantaged women. Another strategy is to encourage women's participation in courses in business development and career services offered by ADOPEM NGO. Also, ADOPEM NGO holds regular meetings at regional branches to educate clients, and their friends and families about bank products, but also about health, gender and other issues their clients face in their daily lives (Andrews 2010, 5). In 2010 through another partnership initiative with WWB, ADOPEM became one of four institutions piloting innovative ways to encourage women's savings, including encouraging local merchants to accept deposits through point-of-sale terminals, extending mobile phone banking to incorporate savings services, while working to keep associated fees as low as possible (Women's World Banking 2010b).

ADOPEM continues to meet its challenges by working effectively with its global partners to enhance its knowledge network as well as its funding support. ADOPEM's social enterprise system is depicted in Figure 1.

5.2 Agroindustria Mexicana de Agave Morelense, A.R. de I.C. de R.L.

Agroindustria Mexicana de Agave Morelense, A.R. de I.C. de R.L. (Mexican Agro-Industry for Morelos Agave, referred to as AMAM) was established in Mexico in 2003 by a group of 240 producers of agave, members of eleven rural production societies (S.P.R.) in a Rural Association with Collective

Interest of Limited Responsibility (A.R. de I.C. de R.L.).² Each society has two delegates as representatives to AMAM business meetings, which are held twice yearly. The vast majority of AMAM's members are small farmers, who own agave fields of less than 1 hectare. As in the case of ADOPEM, AMAM intends to achieve a double bottom line. AMAM's social goal is to enhance livelihood opportunities for small farmers through increased economic returns from their land. AMAM's financial goal is market-oriented: to profit from higher value-added processed agave products to meet the growing global demand for substitutes to cane sugar, rather than being forced to accept low prices for agave as an agricultural commodity.

Early in the decade Mrs. Vicenta Rodriguez, a social worker and owner of an agave plantation working for the state's Department of Agriculture, had recognized that certain incentives were being put in place to encourage farmers to engage in agave production. These incentives, coupled with an agave shortage and high prices led Mrs. Rodriguez and other farmers to move to agave production in 2001. At that time the market price for agave was 18 pesos per kilogram (kg). Given that a hectare could yield an estimated 2500 plants, with each agave bulb plant weighing approximately 50 kg, they expected to receive \$2,250,000 pesos (\$190,000 U.S.) per hectare. Over 360 hectares of agave were planted in the vicinity of Jojutla. Dr. Gerardo Torres became AMAM's first president and Ing. Octavio Venancio, an Industrial Engineer, and son of the founder, became General Manager.

In 2003 AMAM opened its agave processing factory in Jantetelco for the production of liquid agave syrup. Facilitating government organizations supporting AMAM's start-up included Dr. Tamayo, Secretary of Economy in the Mexican state of Morelos, and the Secretary for Agriculture and Livestock Development of Morelos (SDAM), and the Secretary of Agriculture, Livestock, Fish Resources and Aquifers (SAGARPA). SAGARPA contributed 5 million Mexican pesos matched by an equal amount from AMAM members. These funds were used to build the AMAM factory (Venancio 2009). In recent years the Mexican Secretariat of Economic Development has provided some support.

The Instituto Tecnológico de Monterrey, (ITESM, Technological Institute of Monterrey) played a key role in the formation and development of AMAM during its early years. Dr. Jose Acosta, an ITESM professor, helped to develop AMAM's business management skills and entrepreneurial capabilities. He facilitated AMAM's organizing process and served as an advisor in administrative areas, based on his previous experience in rural enterprises. AMAM's knowledge network relied heavily on ITESM's Social Enterprises Incubator as a key resource, supplemented with courses in management and marketing (Venancio 2009). Currently ITESM is not working with AMAM (Venancio 2011).

In addition to ITESM, additional technological institutions have become part of AMAM's knowledge network, including the Instituto Politécnico Nacional (IPN) and its CEPROBI, a Research Institute in biotics. Along with several other research institutes, CEPROBI is doing research on liquid agave syrup production processes. These institutes are getting funds for the research from CONACYT (Consejo Nacional de Ciencia y Tecnología) to develop technology that could be offered to AMAM and others under licensing agreements. Formerly AMAM had tried to develop such an industrial process themselves, even invested in the production equipment, but without success.

AMAM ran into problems in 2007 when they discovered that the factory equipment they had purchased did not yield the level of processing desired; instead of liquid agave syrup the output was more fibrous with a consistency of fruit marmalade. In addition, the severe shortage of agave at the

2. We are grateful to the current AMAM President, Dr. Samuel Mejia and General Manager, Ing. Octavio Venancio, for providing invaluable insights about this case, sharing their experience and knowledge of agro-industry in Morelos over a three year period. A series of interviews was complemented by site visits by the authors and two teams of business students.

start of the decade had led to overplanting and a glut on the market. As agave matures over a period of seven years the majority AMAM fields reached maturity when agave fell to its lowest market price, plummeting from 18 pesos to .80 pesos per kg. (Venancio 2011).

Dr. Samuel Mejía, a surgeon, who became AMAM's second president in 2009, had invested in agave fields early in the decade when prices were soaring. But a decade later, he laughed when he said, "I thought it would make me a rich man" (Mejía 2010a). Dr. Mejía has no background in agricultural production or management.

Unfortunately, AMAM's aspirations have not yet been realized. AMAM has approximately 11 tons of agave marmalade in inventory. This product is beyond its expiration date and contaminated with an organic compound formed during processing. There is no market for it, other than using some of it as food for livestock. Forty farmers have left AMAM over the past few years (Mejía 2010b). Of the 200 remaining members, only 95 remain actively involved (Venancio 2011). Most are discouraged and disappointed with the lack of return on their investments and they are resisting contributing any further funding for the project. This is unfortunate since additional financial investments are required if AMAM is to move forward.

Dr. Mejía feels a strong responsibility to develop strategic alternatives that would rectify the current situation (Mejía 2010a). The short term alternative is to reinvest in equipment necessary for agave syrup production. They will need to take an inventory of the agave plants still available. (Some plants were used in the production of the agave marmalade, others were sold for the production of liquor, and others may no longer be viable.)

A potentially important U.S. agave syrup customer is interested in dealing with AMAM, but AMAM must first be in a position to produce it. This will require them to raise 5 million pesos (\$400,000 U.S.), of which 1 million pesos must be invested by AMAM members in order to obtain government financing for the balance. There are some government agencies that would provide partial financing, but AMAM must produce the first lot and have a contract with its client in order to have a guarantee that it will pay the loans. AMAM intends to sell off its old equipment to cover a portion of AMAM's current debt and to partially fund the purchase of new equipment. The U.S. customer requires that the agave syrup be shipped in industrial strength containers of 1000 liters each (275 gallons). AMAM has not yet secured a source of these containers. Also, this would be AMAM's first exporting operation and they do not have the in-house skills required for this process (Venancio 2011). While AMAM's business plan is not yet completed, it is hoped that the financial formula for success would contain the following elements. First, the farmers would be paid 1.5 pesos per kg. for their raw agave bulbs (approximately twice the market rate). Second, the profits from agave syrup production are expected to be far higher, with the current market price at 100 pesos per liter (\$9.00 U.S.).

Over the longer term, AMAM hopes to produce inulin, an ingredient increasingly used in processed food, for medicinal purposes, and as a source of ethanol. For potentially higher profits, AMAM would need to establish a higher tech-based production process through additional financial investment. Universidad Nacional Autónoma de México (UNAM) is conducting research in a technological process for inulin production that could be licensed by AMAM. Grupo JADE, another cooperative association in Morelos state, has been exporting inulin for some years now. However, AMAM does not have a relationship with JADE, so they are not planning to approach JADE about licensing their technology. Instead, they intend to wait for UNAM's process to be further developed. Another longer term option is to utilize agave plant fibers to produce compressed panels for the construction industry (Venancio 2011).

According to Ing. Venancio (2009), the crucial resources required for AMAM's success are adequate financial resources, production skills development and training, and technology (process and

equipment). Successful outcomes depend on the confidence and trust that AMAM members have in its managers. Members share the concern that current efforts will not lead to the construction of a new factory for liquid agave syrup. Knowledge transfer, knowledge sharing and knowledge management among organizational partners, particularly in terms of technological and management knowledge, are essential to AMAM's future success. AMAM's social enterprise system is presented in Figure 2.

6. Discussion

Comparative case studies of ADOPEM and AMAM demonstrate that the social enterprise process can be modeled using a systems perspective. This approach allows us to trace key factors in the process, including the goals of the principal actors and their interactions with organizations that facilitate their access to necessary resources.

While ADOPEM and AMAM were established to serve distinctly different populations, both share the fundamental concern of balancing social and economic motivations. In both cases financial gains are recognized as necessary if the organizations' outreach to disadvantaged populations is to be sustained over the long-term. It is interesting to note that the initiation of neither ADOPEM nor AMAM was undertaken by a single entrepreneur, but by a small group of people who shared similar motivations. For ADOPEM, the initiators were Dr. de Canalda and a group of professional women; for AMAM the social worker, Mrs. Rodriguez, was joined by her son, Ing. Venancio and the organization's first president, Mr. Torres, to lead the start-up phase.

For ADOPEM and AMAM, tangible resource requirements are obvious and include start-up capital, initial support for operating expenses, equipment and physical plant. However, as one delves into these two cases, it becomes apparent that intangible resources are the life blood of the system. ADOPEM benefits greatly from contributions of know-how, education and training, and technological innovations. From strategic planning to daily operations, these are key success factors for ADOPEM. On the other hand, AMAM appears to have less access to these intangible resources. Although ITESM's enterprise incubator had served as an early facilitator for development of business skills, including management and marketing, it is no longer a source of assistance. Likewise, AMAM's strategic planning, export market development, and access to technological innovations are handicapped by the lack of organizational partners that could provide the necessary knowledge and know-how.

As one examines the sources of tangible and intangible inputs, ADOPEM's and AMAM's interorganizational networks emerge as key factors contributing to their respective success or failure. The development of ADOPEM's capabilities and its impressive outcomes are evident. In fact, a key success factor in ADOPEM's development is the synergistic effects achieved among its organizational partners. Not only are knowledge and know-how transferred among members of its interorganizational network, but working together the network partners are co-creating knowledge and advancing the success of all the participating organizations. ADOPEM's network employs a variety of tangible 'enabling concepts' to enhance knowledge flows across the network, including such catalysts as personnel transfers, knowledge brokers, and the building of interpersonal relationships across organizational and national boundaries. Intangible qualities of the ADOPEM network include its proven absorptive capacity, a strong network identity, and a foundation of trust and shared commitment. This is in dramatic contrast with the situation at AMAM, where enabling processes on behalf of knowledge flows have proven relatively weak and hence ineffective. The loss of confidence and trust of the majority of AMAM members is a fundamental obstacle in the leadership's desire to move forward with a robust strategic plan.

7. Conclusions and implications for future research

Set within a systems framework, comparative case studies of social enterprises in Mexico and the Dominican Republic provide a comprehensive view of the social enterprise system. This approach reveals key factors in the process, including motivations and goals, significant actors, system inputs and the interorganizational networks through which resources flow to achieve results. The systems model highlights interactions among organizations within the system and supports the notion that social entrepreneurship requires cooperation among multiple players drawn from both the private and public sectors. NGOs, government agencies, foundations, and multilateral aid agencies serve key roles as facilitating organizations. It provides strong support for Actor Network Theory, demonstrating that entrepreneurship is enacted through a social network, rather than through the actions of a single individual. This systems perspective highlights the role of interorganizational networks as a key success factor. A causal relationship exists between the enterprise's performance and its ability to exploit the rich interconnections within its network.

The systems model developed here enables us to more easily visualize interconnections between the initiators and other players in the system and to better understand the flow of crucial inputs throughout. Beyond such tangible inputs as financing, equipment, and physical plant, key success factors are embedded in intangible resources, especially in the access to information, technical and managerial know-how, education and training. Initiators' likelihood for success is greatly advanced if learning is an integral part of the organization's culture. Without an effective, efficient knowledge management system the enterprise is unlikely to achieve its full potential. Expert knowledge conveyed through personnel transfers, direct communications, written reports and publications, as well as training and education programs can provide the social enterprise with a strategic perspective on future market demand, organizational management, and technological innovations. Resulting innovations lead to internal efficiencies and enhance the value proposition to the organization's customers and clients.

The systems perspective provides valuable information to business practitioners, government policy-makers and others who wish to play facilitating roles in social entrepreneurship success. Research has yet to focus sufficiently on processes through which innovative ideas and approaches are shared and adapted in the service of organizations with a social mission. However, it would be useful to examine approaches to enabling interorganizational knowledge flows, as well as their strategic implications (van Burg et al. 2008). Facilitating organizations and social enterprises would benefit from conscious efforts to insure that necessary steps are taken to enhance interorganizational knowledge transfers and to move beyond this phase to co-creation of knowledge and innovations based potential synergies.

This exploratory model indicates that a systems approach offers a valuable method for developing a more comprehensive understanding of the social enterprise process. However, more work needs to be done. Development of the model would be enhanced by its adaptation to fit a broader range of cases. Further definition of the essential system inputs correlated with success is required. Likewise, it is important to develop a better understanding of the obstacles that inhibit progress. The model would benefit from a review by other professionals and practitioners with experience in social enterprise and management. Their knowledge of the process and its major factors would add significant value to this work.

It is hoped that a more thorough understanding of social entrepreneurship and its interorganizational networks will result from the perspective proposed here. Hopefully, this model can serve as a building block for further research and over time may contribute to the important work being done in this field which holds human development at its heart.

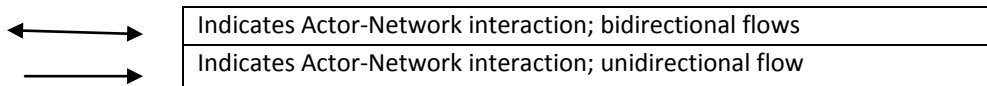
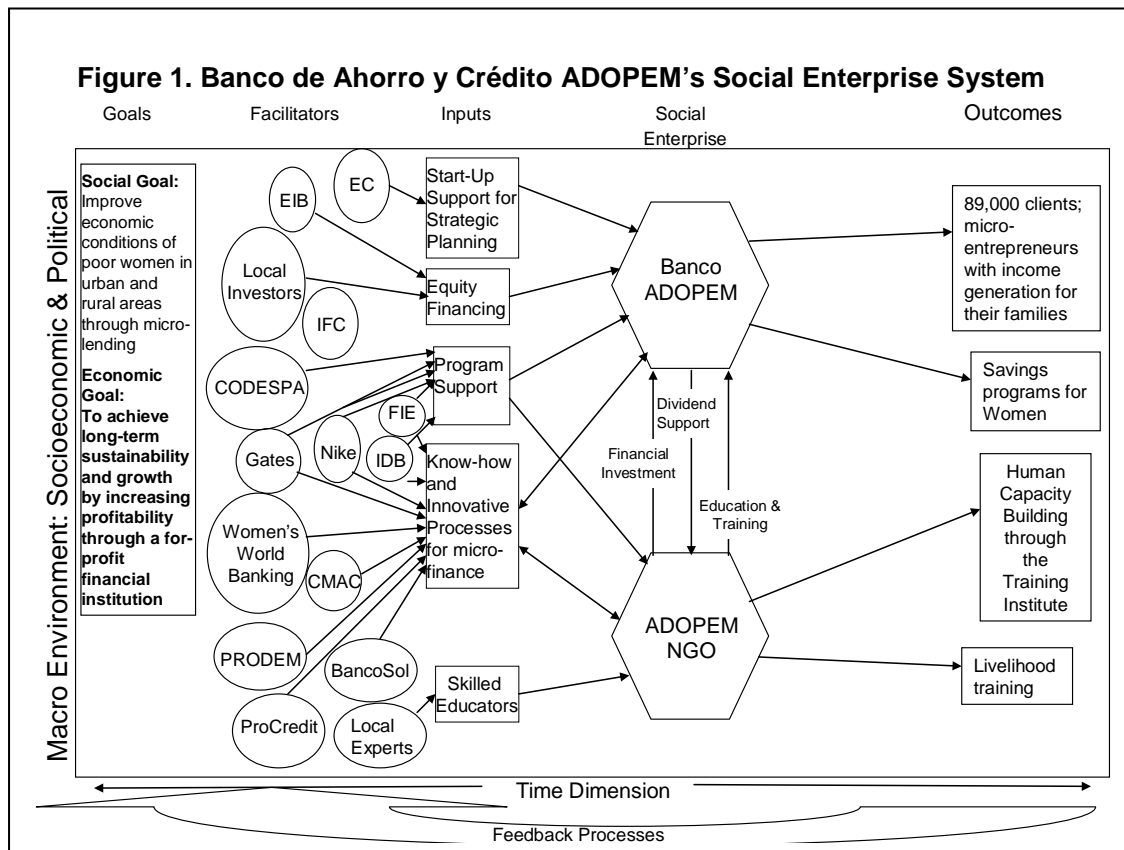
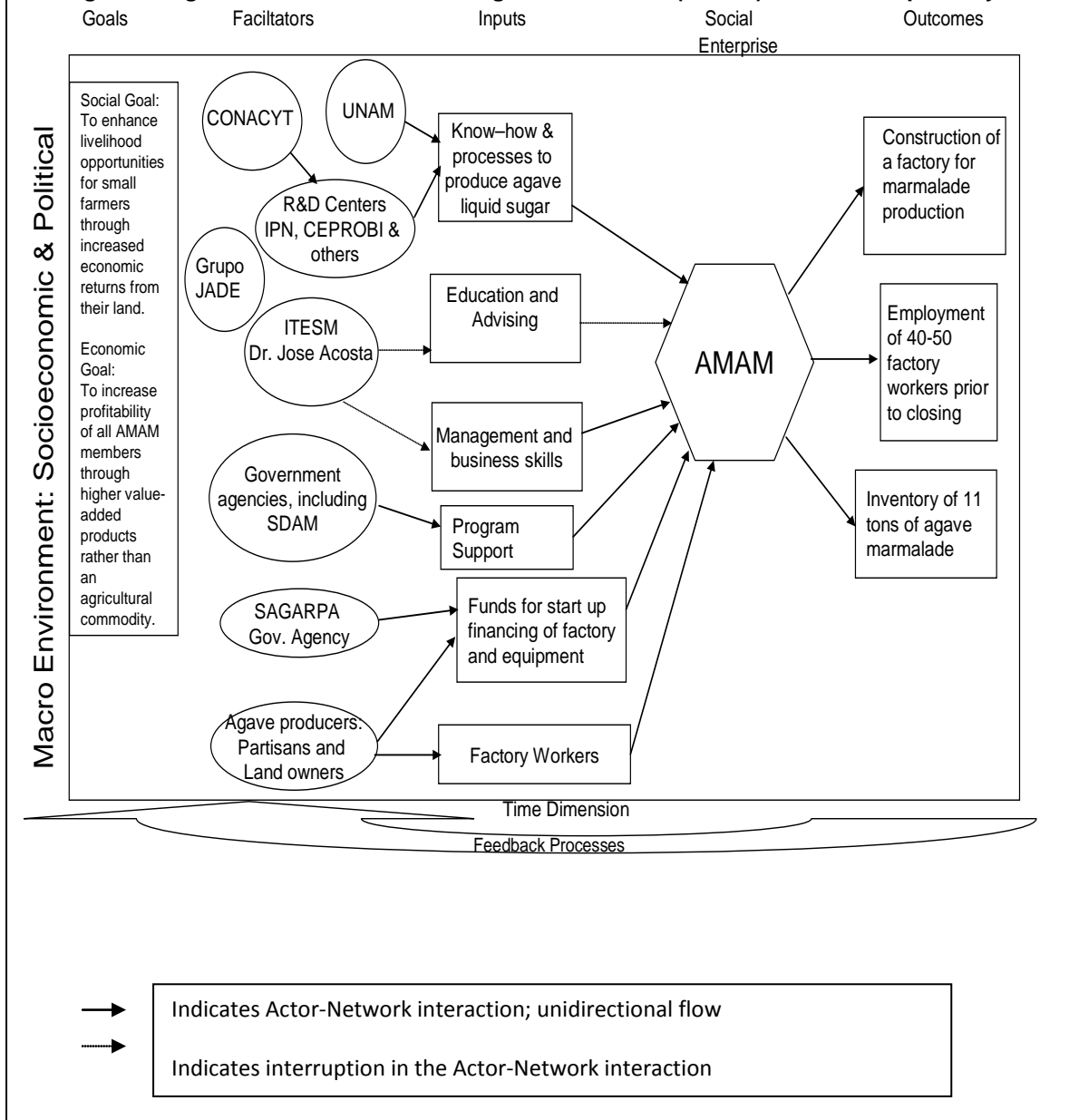


Figure 2. Agroindustria Mexicana de Agave Morelense (AMAM) Social Enterprise System



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