Catalytic innovation as a strategy for social change and economical success. The case of Mexico

Caroline AUVINET1

Instituto Tecnológico Autónomo de México Escuela de Negocios caroline.auvinet@me.com

Antonio LLORET

Instituto Tecnológico Autónomo de México Escuela de Negocios antonio.lloret@itam.mx

Recibido: 30-10-2011 Aceptado: 07-12-2011

ABSTRACT

Poverty and unemployment are problems that affect many countries. Governments are not able to meet many social needs, creating a void into which business initiatives can enter. Social enterprises are a form of social entrepreneurship, and are initiatives that seek economic benefits as well as the alleviation of social needs. One successful strategy to meet social and economic benefits is through Christensen's "Catalytic Innovation". We performed 47 interviews in Mexican Social Enterprises to search for catalytic innovation, success traits and business strategies. We found that successful social enterprises meet most of Christensen catalytic innovation elements, and that they also have business strategies in place.

Keywords: Social Enterprises; Catalytic Innovation; Mexico; Poverty Alleviation; Strategy.

¹ Authors wish to acknowledge support by Asociación Mexicana de Cultura, A.C.

La innovación catalítica como estrategia para el cambio social y el éxito económico. El caso de México

RESUMEN

La pobreza y el desempleo son problemas que afectan a muchos países. Los gobiernos no son capaces de satisfacer muchas de las necesidades sociales, creando un vacío en el que las iniciativas de negocio pueden entrar. Las empresas sociales son una forma de emprendimiento social y son iniciativas que buscan beneficios económicos, así como el alivio de las necesidades sociales. Una estrategia exitosa para cubrir los beneficios sociales y económicos es a través de las "innovaciones catalíticas" de Christensen. Realizamos 47 entrevistas a empresas sociales mexicanas en busca de innovaciones catalíticas, rasgos de éxito y estrategias de negocio. Hemos encontrado que las empresas sociales exitosas reúnen la mayoría de los elementos de las innovaciones catalíticas de Christensen, y que también cuentan con estrategias de negocio.

Palabras clave: Empresas Sociales; Innovación catalítica; México; Alivio de la Pobreza; Estrategia.

Summary: 1. Introduction. 2. Methodology. 3. Results. 4. Discussion. 5. Study limitations and future research. 6. Conclusions. References.

1. INTRODUCTION

In Mexico, as in the rest of the world, poverty linked to high unemployment is a problem that affects the majority of the population. Given this situation, there are new business initiatives that seek not only to improve financial gains but also to meet a social need that has not been met before. Mexican social enterprises are creating new opportunities to innovate and are seeking mechanisms to meet societal needs more efficiently.

Christensen, Baumann, Ruggles and Sadtler (2006) suggest a strategy whereby social enterprises could achieve greater success: "Catalytic Innovation."

In this paper, we aim to find signs of catalytic innovation in Mexican social enterprises by analyzing (1) the elements of catalytic innovation met by Mexican social enterprises; (2) the economic success of Mexican social enterprises that met catalytic innovation; and (3) the strategic elements used by successful social enterprises in catalytic innovation. Our analysis is based on interviews of 47 social enterprises performed during the XIII National Social Enterprise Trade Fair, Expo Fonaes 2011². To the best of our knowledge, our study is the first empirical analysis

² FONAES is a federal government agency subdivision of the Treasury that supports business projects, finance rural population, peasants, indigenous groups and urban social sector.

performed in Mexico on a larger scale that moves beyond a description of a successful case study.

1.1. A country in search of solutions

In 2010, the National Evaluation of Social Development Committee (CONEVAL)³ reported that in Mexico, 46.2% percent of the population lived in multidimensional poverty; that is, 52 million people in the country had at least one social deprivation and did not have enough income to meet their needs. (CONEVAL, 2010)

The unemployment rate in Mexico, according to the population and housing census of 2010 conducted by the INEGI, is at 5.2% of the population; additionally, 28.9% of the population is working in the informal sector (INEGI, 2011).

Faced with these challenges, the fight against poverty has become a priority in the Mexican government's agenda. The results are yet to be determined, but chances are that the level of success will be minor. Society, however, has increasingly become aware of the limits of what the government and aid agencies can do in terms of alleviating hunger and providing health services, education, housing and saving the environment (Prahalad 2010).

Bornstein and Davis explain that the model that seeks to solve social problems "top down" and that has predominated in the past century can no longer persist. The problems are increasingly complex and have overtaken governments and aid agencies. Therefore, the strategy must change to address problems not only from a "top down" perspective but also with a "bottom up" strategy. With this idea in mind, social and environmental enterprises have emerged as an alternative solution for poverty and inequality (Bornstein & Davis, 2010: 34).

1.2. Social entrepreneurs in Mexico

According to Prieto-Hernández, in México, social entrepreneurship may seem new to many, yet Mexican social enterprises have their origins in various forms of productive organization and community efforts that existed for centuries. Guilds, craft workshops, forms of communal property, and indigenous systems of community have always existed but in the last decades have tended to be displaced by private capitalist enterprises that pursue a logic of accumulation, competition, and individual gain. (Prieto-Hernández, 1992).

³ The National Evaluation of Social Development Committee is a public agency of the federal government, with autonomy and technical capability to generate objective information on the status of social policy and the measurement of poverty in Mexico, which will improve decision on the matter.

Mexican social entrepreneurship, finds its origins in a social economy context; an option that organized civil society implements as a strategy to increase their income and thereby contribute to social and community development. Self-employment, the creation of family businesses, social organizations, entrepreneurs and developers of new ideas in the field of labor, is a trend that occurs in organizations of farmers, forest managers, urban and rural social organizations (Social Studies Center and Public Opinion, 2006).

In Mexico, there is a long history of cooperative movement that finds its origins in the nineteenth century. It was an innovative idea coming from Europe, which highlighted the animation for the formation of unions, mutual societies, cooperatives and semi-agrarian communities. These organizations were subordinated to the interests of the state and thus had a close relationship. (Martínez Ramírez Rojas Herrera J. & J., 2003).

In the eighties came the government downsizing and economic liberalization, which led in 1994, with a legislative reform in witch cooperatives were released from state custody. Thus, this type of organization had to find new ways to survive and pursue their missions. (Martínez Ramírez Rojas Herrera J. & J., 2003).

Today social enterprises in México, suggest a different alternative: an organizational scheme that preserves cooperation and teamwork among citizens over other forms of organization (Prieto-Hernández, 1992). Mexico has various social enterprises that come from different sectors. They may have different organizational cultures and strategies, but they all agree that through innovation and creativity they can have a social and environmental impact and generate profits. These enterprises have social purposes, use business mechanisms to achieve their goals, and seek to become independent. These elements distinguish them from other type of business organizations (Reficco, Gutierrez and Trujillo, 2008).

Although social enterprises in Mexico have had a close relationship with governments in the past, today they strive to become more independent. In the last decade, social entrepreneurs in Mexico have taken on a new role, drawing upon their background and the international emergence of a new definition of social enterprise.

According to Rahim Kanani, Director of the Swab Foundation for Social entrepreneurship, social entrepreneurs:

- Achieves large scale, systemic and sustainable social change through a new invention, a different approach, a more rigorous application of known technologies or strategies, or a combination of these.
- Focuses first and foremost on the social and/or ecological value creation and tries to optimize the financial value creation.
- Builds strong and sustainable organizations, which can be set up as not-for-profit or for-profit companies.

One way that social entrepreneurs can achieve those objectives is through the creation of social enterprises.

The Aspen Institute defines social enterprises as any organization that ranks social impact on par with or above, profit concerns (Aspen Institute, 2006).

Yma Gordon, Ms Foundation, explain that: "A social enterprise as a tool for achieving mission has come to the fore. Its more than a revenue strategy. People are beginning to look at it as a tool of economic empowerment for the communities they serve. It's not just a fundraising tool -its a mission fulfillment tool" (Virtue Ventures: 2013).

This scheme is how a number of social enterprises are emerging in Mexico by creating social value while maintaining their independence through the sale of goods and services. Today, many Mexican families or cooperatives choose to start a business to secure an income and stable employment; some of these organizations try to satisfy unmet needs in a community, to employ people with low incomes, or to provide goods and services to the disadvantaged. These firms fulfill a social function that has not yet been resolved.

1.3. Searching for a strategy

The social value that social entrepreneurs create is of different kinds, whether it is in health, environment, food, education, housing, or in the generation of stable and quality employment. To achieve this result, the most efficient way to promote innovation in social enterprises is by ensuring systematic social impact as well as an economic return. Christensen explains: "...much of the money available to address social needs is used to maintain the status quo, because it is given to organizations that are wedded to their solutions, delivery models and recipients. Many provide relatively specific, sometimes sophisticated offerings to a narrow range of people. While they may do a good and important job serving those people, and while their services may steadily improve, these organizations are unlikely ever to reach the far broader populations that are in need and that would be satisfied by simpler offerings if only they were available. What's required is expanded support for organizations that are approaching social-sector problems in a fundamentally new way and creating scalable, sustainable, systems-changing solutions" (Christensen, Baumann, Ruggles & Sadtler, 2006).

Social innovation is therefore essential to promote social change, is the vehicle between the idea and the opportunity (Kickul J. & Lyons T., 2012). Unlike business innovations, social innovations have as an ultimate goal to cover a social or environmental need unmet or underserved. Considering the above, Phills et al. define social innovation as "a new solution to a social problem that is more effective, efficient, sustainable, or just than existing solutions" (Phills J., Deiglmeier K, D. & Miller, 2008). Separately, G. Mulgan, defines social innovation as "innovative activities or services that are motivated by the objective of social and fill a need that

are predominantly developed and diffused through organizations whose primary purpose is social" (Mulgan G., 2007).

The Ministry of Quebec (Canada) for research, science and technology, defines social innovation in 2000, as "... any new approach, practice or procedure, or any new product created to improve a situation or solve a problem social and has been adopted by institutions, organizations or communities" (Ponce Airola Y. & R., 2007).

In short social innovation can occur as a process or a product. Is adopted, developed or disseminated by an organization that aims to create lasting social change. In this context, innovation connotes competition, as it is in the case of innovation in business ventures, but it looks different approaches for unresolved social problems (Vernis, 2009). We can say that there are different approaches to innovate within a company whether social or business. While business firms seek to increase their competitiveness, social enterprises seek to solve social problems.

Christensen et al. argue that to achieve the goals of social enterprises, their innovations must challenge the established players in an industry offering simpler and sufficient alternatives to a group of underserved customers. Offerings must surpass the status quo by providing good-enough solutions to inadequately addressed social problems. These innovations are called "catalytic innovations," a subset of disruptive innovations that aim to create social change by: (1) Creating systemic social change through scaling and replication; (2) Meeting a need that is either over-served (because the existing solution is more complex than many people require) or not served at all; (3) Offering products and services that are simpler and less costly than existing alternatives; (4) Generating resources, such as donations, grants, volunteer manpower, or intellectual capital, in ways that are initially unattractive to incumbent competitors, and (5) Offering products that are often ignored, disparaged, or even encouraged by existing competitors for whom the business model is unprofitable or otherwise unattractive

Social enterprises have become more aware of the fact that catalytic innovation may help them achieve their social mission and ensure profitability; it is, thus, important to analyze whether Mexican Social enterprises have signs of catalytic innovation, their level of success, and their business capabilities in place.

1.4. Catalytic Innovation in Social Enterprises

The existing players have resources, processes, patterns and business models that maintain the status quo. For them, creating an innovation that challenges the way of doing things is unattractive because it would result in high costs of restructuring. That is why according to Christensen et al., catalytic innovations that can bring major benefits arise from new business initiatives. These enterprises offer a lower cost alternative and simpler to a market segment neglected or ignored by the dominant supplier. For their part, customers consider the product or service is good enough to meet their needs. Social enterprises in Mexico seek to cover needs that have not been

met by providing solutions to social problems. Yet it is through scaling and replication that innovation will achieve sustainable social change. That is why only those innovations that can be transferred to new locations will achieve their mission. This scaling, however, takes time, often years, to make this innovation to be replicated or expanded. This time frame means that when evaluating the five qualities of catalytic innovation, we must consider not only whether these qualities have been achieved, but also whether companies in new locations could potentially achieve those qualities.

In Mexico, social enterprises that have emerged in recent years seek to cover needs that are not covered by the main actors. Many look for social change with the mission first to solve a local problem. Once they have achieved success in their locality, they can replicate their business model in other regions, eventually becoming a viable national solution. That brings us to our first research question:

Research question 1. Within Mexican social enterprises are there signs of catalytic innovations?

1.5. Catalytic Innovation and Success

Commercial innovations come from two different ways. 1) Sustaining innovations, which improve existing products or services. They deliver high performance in the dimensions that existing customers value. 2) Disruptive innovations, that underperform existing products. They disrupt the value proposition.

Sustaining innovations are of great importance for companies seeking continuously to improve their products, but the inevitable moment arrives in which the quality exceeds what the customer needs, wants, or can afford. This leaves out a large number of potential customers for whom these innovations are out of reach. This situation creates opportunities for disruptive innovations.

Disruptive innovations offer simpler and less costly products or services to those for whom sustaining innovations are too complex and expensive. Disruptive innovations are priced low, allowing them quick market penetration and efficiency. They can attract a large number of consumers and achieve a high sales volume, allowing them to reduce production costs, which eventually discourage competitors from introducing competing products. They often have a major impact on the structures of many sectors and, in the process, have often led unintentionally to social change.

The subcategory of disruptive innovations within catalytic innovations is based on the same premises as disruptive innovations. However, its main objective is to achieve sustainable, scalable social change. The ultimate goal is different from disruptive innovations, but the mechanisms to get the ultimate goal is the same; we can thus assume that within the catalytic innovations, there will be innovations that lead to economic as well as social success.

As mentioned above, the 46.2% of the Mexican population have at least one unattended social need. These are 52 million people looking for a solution, which leaves a large segment of the market ready to be tapped. Thus, social enterprise whose aim is to create social impact through the production and marketing of goods tries to take advantage of this underserved market. According to Christensen et al., it is through the provision of services and products with catalytic qualities that change can be achieved in the most efficient way. The characteristics of the Mexican population and its needs led us to formulate our second research question.

Research question 2. Are the enterprises that meet elements of catalytic innovation more successful?

1.6. Social Enterprises and Strategies

We define the term "strategy" as the set of measures taken or to be taken or acts performed or to be performed to achieve a certain result or goal. For commercial enterprises, the purpose is focused on creating economic value through production and sale of goods and services. For social enterprises, the main objectives are to create a sustained social change and to use commercial activities to do so. The strategies allow pursuing objectives in a consistent and ordered way, aligning resources, processes and values for the ultimate goal. Therefore, we assume that those Mexican social enterprises that implement business strategies to achieve their ultimate goal are more successful, given their characteristics. Which brings us to our research question number 3.

Research question 3. Do Social Enterprises that have adopted business strategies show signs of success that are not present in companies without business strategies?

2. METHODOLOGY

2.1. Data Collection

To learn more about the business models of social enterprises in Mexico and to detect possible catalytic innovations, we attended the XIII National Social Enterprise Trade Fair, Expo FONAES 2011 and invited social entrepreneurships to participate in our study. We approached 200 social enterprises of which 23.5% (47 companies) agreed to be interviewed.

Attendees to the fair are businesses that were supported by the FONAES, having complied with the requirement to be part of the rural population, peasants, indigenous and urban groups in the social sector. The businesses participating are established in priority areas such as micro-regions, micro-watersheds, and urban polygons of

poverty. In addition, FONAES prioritizes projects that involve women suffering from family violence, people with disabilities, or elderly people (FONAES, 2010). Despite being companies that do not have large financial resources, some of these social enterprises have demonstrated a productive and organizational capacity and have been operating on average for 8 years.

Interviews were applied consistently in self-selected companies willing to participate. We asked the same questions to all social entrepreneurs to gather information on three main areas: (1) The companies and their strategies; (2) Catalytic innovation and the social impact they have or seek to have; and (3) The success of companies.⁴ With the 47 entrepreneurs interviewed, 20 states of the Mexican Republic were represented (out of 31). The interview protocol can be found in Appendix 1.

2.2. Measurement

We obtained measures about four broad arenas: the company and its strategies; their social impact; the qualities of Catalytic Innovation according to Christensen et al (2006); and their success. In particular:

The company and its strategies: Through a series of questions, we sought to understand the structure and origin of the company, its position within the value chain, their business strategies, and their strategies towards their clients. We measured if they knew their competition and their differentiation strategies. What we wanted to measure using these questions was their organizational and productive capacity and the strategies they used as an enterprise, so that we could understand their business model.

The Social impact: The social impact was measured by identifying what kind of impact the enterprises wanted to achieve (social or environmental), clarifying what was the main object of the enterprise, and asking them who benefits from the products or services they sell. The main objective of these questions was to understand what was the social impact they were looking to generate, in what way they tried to do it, and if for the social enterprise it was the main objective or only a secondary objective.

Catalytic Innovation: In order to detect possible catalytic innovations and understand the desired social impact of the interviewed social enterprises, we relied on the five qualities of catalytic innovation of Christensen et al. (2006): 1) Creating systemic social change through scaling and replication; (2) Meeting a need that is either over-served (because the existing solution is more complex than many people

⁴ Businesses that chose not to participate in the interviews had one of the following arguments: they worked for the entrepreneurs and lack the knowledge to participate in the interview; for security reasons they preferred not to share information about the enterprise; or they just preferred not to answer the questions at that time.

require) or not served at all; (3) Offering products and services that are simpler and less costly than existing alternatives; (4) Generating resources, such as donations, grants, volunteer manpower, or intellectual capital, in ways that are initially unattractive to incumbent competitors, and (5) Offering products that are often ignored, disparaged, or even encouraged by existing competitors for whom the business model is unprofitable or otherwise unattractive.

The success of the enterprise: In order to identify which companies were more successful economically and test whether firms that have more catalytic qualities translate into economic success, we developed several questions related to the growth and stability of the company.

Once we compiled the information of all 47 interviews, we codified the answers to give meaning to our analysis. Our codification scheme was binary (0,1) with 1 as the existence of a quality. When necessary, we aggregated the qualities to represent the number of possible characteristics met: for example, the social objective met had eight questions on whether the social entrepreneur meets different qualities like capacity building, community development, productivity and so on. The enterprise that met most qualities received a score of 8. Each quality had the same weight, as it is not possible to measure which social objective is more relevant, and also because we wanted to see whether the social enterprise meets it social objective rather than to quantify their success.

3. RESULTS

Once the information was codified, we tried to give statistical meaning to the main research questions tested. To do so, we calculated descriptive statistics and correlation coefficients measures. We fitted a multiple regression model where we tested for success as dependent variable and independent variables the number of social objectives met, business characteristics and catalytic innovation signs. In our model, we found that some coefficients were statistically significant at 10% but found signs of multi-collinearity. In addition, our R² remain in the lower 30's. As we controlled for size, region and type of business, we lost all statistical significance. We claim that as the number of variables increase, the degrees of freedom reduce the statistical significance of our analysis given that we only had 47 business enterprises to work with. We are aware of the limitations of the study in statistical terms and understand that our results cannot be generalized. In what follows, we use descriptive statistics to describe our analysis.

Research question 1. Within Mexican social enterprises, are there signs of catalytic innovations?

Based on the five elements of catalytic innovation, we found that 36.17% of firms meet a need that is either over-served (because the existing solution is more complex than many require) or not served at all. Most firms that meet these needs have local or regional operations and belong to the services sectors.

In terms of creating systemic social change through scaling and replication, we relate the unmet needs addressed by the companies with the variables that indicated the generation of social benefit. We found that when enterprises covered an unmet need, the social benefits were greater. Of the 8 indicators of social benefit, on average the whole sample covered 3.3 social objectives, relative to an average of 2.7 social objectives when the goods and services offered are based on met needs already.

As far as the qualities of products and services, Christensen suggests that Catalytic Innovation implies products and services that are simpler and less costly than existing alternatives; these products may be perceived as having a lower level of performance, but users consider them to be good enough. When social entrepreneurs were asked whether they knew their competition and if they considered their product to be cheaper, simpler, more convenient and/or of better or worse quality, we found that most entrepreneurs perceive the products as being more convenient and about the same price than those of competitors and with a better quality. The quality factor in Christensen was not met in the whole sample, as he suggests that the product may have lesser quality so long as it meets a need. In figure 1, we show a radial chart to show which of Christensen features were met. We believe that there is some perception in enterprises that their product always is of better quality than that of their close competitors, even if that perception is not necessarily true. The chart shows that price and convenience are the likely drivers of their innovation and that chances are the enterprises are investing in differentiation strategies.

Christensen et al suggest that Catalytic Innovation requires entrepreneurs to generate resources, such as donations, grants, volunteer manpower, or intellectual capital, in ways that are initially unattractive to incumbent competitors. One of the characteristics of the firms that participated in the Fair FONAES is that they all received some form of support directly or indirectly from the government for different purposes. We found that 78.3% of the companies have had previously support from the government, 6.4% of from non for profit organizations, 2.2% from private companies, and 19.6% had not received previous support. Interestingly enough, we found that no company has received volunteered work, a situation that can be improved. Companies that have received monetary resources replied that they have used their resources to strengthen or expand their operations, but did not dependent on government financial support for their survival.

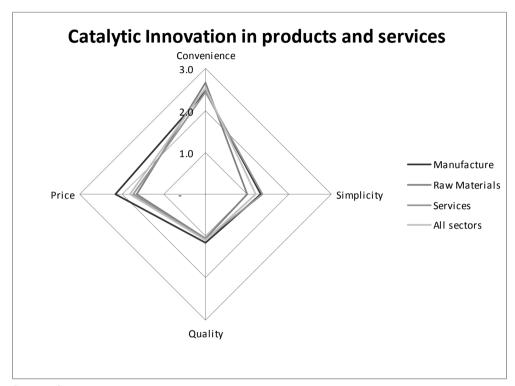


Figure 1: Product and Services characteristics. Signs of Catalytic Innovation.

Source: Survey

Finally, Christensen suggests that entrepreneurs performing Catalytic Innovation are often ignored, disparaged, or even encouraged by competitors for whom the business model is unprofitable or otherwise unattractive and who, therefore, avoid or retreat from the market segment. In our research, we consider the companies as enterprises in areas with high poverty index and difficult to access. We argue that players that cover most of the national market do not consider them as competitors and may even ignore them. It is quite possible that large companies see serving isolated areas as too costly and therefore retreat from the market segment. Social Enterprises are not seen as a real threat for larger companies because they do not compete with them in terms of market share, price, quality or product. Overall, our analysis has showed that social enterprises in our sample show some signs of catalytic innovation. However small these signs, we believe it to be important to understand social entrepreneurship in Mexico.

Research question 2. Are enterprises that meet most elements of catalytic innovation more successful?

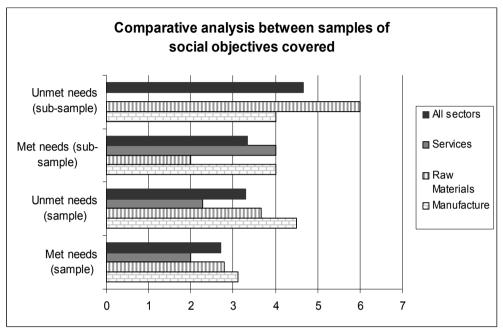
From research question 1, we found signs of catalytic innovation but we did not detect any company that would cover the five qualities of Christensen simultaneously. We, however, identified sixteen companies that showed consistent growth indicators. Focusing exclusively on this sub-sample, we found that six enterprises met most of the qualities of Christensen as well as generated significant social impact. We compare these companies with the original sample and found that not only were these companies more successful, but also that they understood much more clearly their competitive position relative to their competitors. Most of these sub-sampled companies cover unmet needs, operate nationally, and belong to the manufacture sector. Our reading is that companies that serve unmet need can aspire to be more successful both in the social and economic aspects. We also found that some companies, 10/47, have shown some economic growth but did not meet any of the catalytic elements or have had an evident social impact at all.

As far as enterprises creating systemic social change through scaling and replication, the sub-sample covered on average 4.7 social objectives relative to only 3.3 of the whole sample. The companies that meet most social objectives 6 out of 8 objectives belong to the raw material sectors. Figure 2 depicts our main findings.

The more successful companies in our sample have shown a better knowledge of their main competitors. This knowledge allows them to benchmark and pursue strategies to create more convenient products at a lesser price with less than or equal quality than their competitor products. As far as simplicity, social entrepreneurs believe that their products are more complex than those offered by other agents. Figure 3 below shows firms with signs of catalytic innovation. Relative to our analysis in research question 1, the sub sample representing the success stories has firms that provide products or services that are more convenient, are cheaper, and have the same quality of competitors. These are clear signs of one element of catalytic innovation. We think that the knowledge gained from their understanding of the market they serve creates a feasible environment for differentiation.

Finally, we have found that the most successful companies have all received government resources that allowed them to expand operations beyond the local and regional levels. Even if we have no precise information on whether these companies serve a market otherwise uninteresting to large companies, the fact that these firms operate nationally suggests that competitors are aware of their existence.

Figure 2: Comparative analysis of enterprises with met/unmet needs and their social objective coverage.



Source Sample.

Research question 3. Do Social Enterprises that have adopted business strategies show signs of success that are not present in companies without business strategies?

By focusing only in the companies that have shown signs of catalytic innovation and have been more successful, we found that these companies pursue business strategies that are not common to all social enterprises. Our interviews of the social entrepreneurs and our analysis of the six success stories suggest clear differences with other social entrepreneurs. We believe that these differences, in addition to meet Christensen objectives, may be the key to meeting the objectives of newer social enterprises: making the firms not only socially relevant but also profitable.

Catalytic Innovation in products and services subsample

Convenien

3.0

Price

Price

All sectors

Catalytic Innovation in products and services subsample

Convenien

Simplicity

— Manufacture
— Raw Materials
— Services
— All sectors

Figure 3: Product and Services characteristics. Signs of Catalytic Innovation.

Source: Survey

Furthermore, the differences seem to have in common the fact that they all use some sort of business strategy to pursue their means. We found that the most successful companies that meet most Christensen Catalytic Innovation elements do one or more of the following:

- i. They knew their competition, as demonstrated by their responses to the interview.
- ii. They have congruency in their strategy, which seems to be inclusive, focusing on what they do best by scaling and replicating at different levels.
- iii. They have clearly defined their client, a sign that allows enterprises to create product differentiation by meeting unmet needs and understanding consumer preferences.

iv. The organization's goal was both to create social impact as well as economic benefits.

- v. The enterprises gain from a broader look of the company from merely membership benefits to community benefits.
- vi. The successful companies produce several social and environmental benefits relative to other less successful firms that produce fewer social or environmental benefits.
- vii. The successful companies have been able to replicate their business model beyond the regional or local level to a national and even international level.
- viii. Finally, the successful entrepreneurs have adopted technological changes as showed by all having email and websites.

In our understanding, the aforementioned characteristics are traces of a business strategy not found in the rest of the sample. The success stories showed some sort of business strategy embedded in their operations that has allowed them to grow scale and replicate their business models to the national or international level. These companies have worked on differentiation strategies that ultimately allow them to become more profitable without forgetting their goal of meeting social objectives. Despite being companies that do not have large financial resources, these social enterprises have demonstrated the productive and organizational capacity required for success.

4. DISCUSSION

Through our analysis of the interviews, we detected that no single company met all five qualities of Christensen simultaneously, yet there are traces of Catalytic Innovation in the social enterprises studied. Moreover, as shown in the research question 2, the most successful companies have a greater social impact and demonstrate the most elements of catalytic innovation. However, one of the biggest challenges we faced was to determine whether the companies were financially successful: we were not able to gather historical financial information from the companies interviewed, as many of them do not even have an accounting scheme or a minimal reporting system in place.

As we know, financial statements for a business venture allow us to understand the operation of a company and its strengths and weaknesses. For a social enterprise, the financial statements have the same function. However, developing such documents involves having the structure and resources that social entrepreneurs often do not have. Most of the companies interviewed were small, of humble origins--family (58.7%) or community (32.6%) businesses--with an average of 10 employees.

Social entrepreneurs operate with limited economic and human resources. They operate their businesses with the resources at hand mostly based on intuition and improvisation regardless their limitations. (ML Di Domenico, H. Haugh, P. Tracey.

2010) As in Lévy-Strauss's idea of "Social Bricolage," social entrepreneurs face major constraints that force them to take advantage of the limited resources at hand in order to survive.

The companies interviewed are no exception: community leaders and family members try to use the resources available to them and manage their businesses based on intuition rather than on training. We noted during the interviews that some entrepreneurs are illiterate, and so even thinking about a financial statement is out of the question.

While some entrepreneurs have greater production and organization capacity, social entrepreneurs are driven more by factors that allow them to assess whether their business is prosperous or not. In our interviews, some of the measures that stand out as proxies for profitability were: number of full-time employees, growth in the number of products they produce, replication of the business model in different arenas, and excess cash.

We tried to obtain other types of "profitability" and used Maslow's hierarchy of human needs to measure business success of the social entrepreneurs in our survey. We gather information on whether the entrepreneurs (1) meet survival needs, (2) have a stable job, (3) gain acceptance in the community, (4) gain recognition as a businessman and (5) gain self-fulfillment as a person. (A. Maslow, 1943).

We asked our entrepreneurs to choose any or all of Maslow's hierarchy elements as a sign of success. Our results suggest that most respondents feel that the business has enabled them to get a stable job (60.5%) and find self-fulfillment as a person (53.5%). We believe that these are measures that may be considered as traits of success in social enterprises, given the lack of other means to measure accurately success.

Similarly, to determine the firm's level of social impact, we asked eight different questions all related to environmental and social needs. We believe that the firms that meet more social or environmental needs are those that actually recognize that their enterprise is active in the social and environmental arenas.

Our analysis suggests that firms that adopt catalytic innovation strategies usually also acquire business strategies that allow them to be more successful in making a social impact and generating economic returns.

5. STUDY LIMITATIONS AND FUTURE RESEARCH

We are aware of the lack statistical significance of our small sample, yet we think that this initial analysis shows traces of how success, catalytic innovation and strategy can be linked in social enterprises. Moreover, by interviewing 47 entrepreneurs, we were able to find signs of Christensen's catalytic innovation elements and success. We believe there is much more to explore. To the best of our knowledge, our study is the first empirical analysis performed in Mexico on a larger scale that moves beyond a description of a successful case study. We believe that our study shows that social entrepreneurs can be

more successful if they meet unmet needs or over-served needs with simpler and more convenient products. The quality and relative price depends on the knowledge the firm has of its main competitors. The greater knowledge of existing competition and the use of business strategies increase the chances of scaling and replicating.

Now that we know that some social enterprises pursue catalytic innovation, our next step is to transform the interview protocol into a survey instrument that could be applied to a larger set of social and environmental enterprises nationwide. Then we will perform a robust statistical analysis that could give us more information of how social enterprises operate in Mexico, their success, their business strategies and whether they have used some form of Catalytic Innovation.

6. CONCLUSIONS

Social enterprises in Mexico are creating "a new frontier, a quiet revolution" (Bornstein, 2007). It is through this silent revolution that disadvantaged groups found solutions from the bottom up and have found independent success by taking advantage of the resources at hand (M. Di Domenico, H. Haugh, P. Tracey. 2010) to reduce their poverty levels without government intervention. Social entrepreneurs seek opportunities to innovate: by creating solutions for unmet social needs and by creating jobs for themselves, their families, and the community at large.

Christensen proposes a strategy for these businesses to achieve their goals, both social and economic. In our research, we did not detect any company that meets the five qualities that he proposes, yet we found that the companies that meet most of the qualities Christensen suggests are more successful both in generating a social impact and an economic value

As in future years the Mexican government creates new programs to encourage social enterprises or private companies create investment funds and incubators, we have no doubt that we will begin to hear more about social entrepreneurship and social enterprises in Mexico. Our study, the first of its kind in Mexico, sheds light on what a social entrepreneur must do to become successful.

REFERENCES

ASPEN INSTITUTE. A closer look at business education. http://www.caseatduke.org/documents/sereport.pdf. 2006.

BORNSTEIN, D. How to change the world: social entrepreneurs and the power of new ideas. New York: Oxford University Press. 2007.

BORNSTEIN, D., & DAVIS, S. Social entrepreneurship: what everyone needs to know. New York: Oxford University Press. 2010

CHRISTENSEN, C. BAUMANN, H. RUGGLES, R. SADTLER, T. Disruptive innovation for social change. Harvard Business Review. December. 2006.

CONEVAL. Direction of information and social communication. Press Release No. 007. Poverty in Mexico report. 2010. (http://internet.coneval.gob.mx/informes/Pobreza%202010/COMUNICADO_PRE NSA MEDICION DE POBREZA 2010.pdf).

- DEES, J. G. 1998. The meaning of "social entrepreneurship". (http://www.caseatduke.org/documents/dees_sedef.pdf)
- DI DOMENICO, HAUGH, H M., & TRACEY, P. Social Bricolage: Theorizing social value creation in social enterprises. Entrepreneurship: Theory & Practice, 34(4). 2010. 681-703.
- GORDON Y, in Virtue Ventures. (http://www.virtueventures.com).
- KANANI, R. The Schwab Foundation for social entrepreneurship on the evolution and future of social enterprise. http://www.huffingtonpost.com/rahim-kanani/schwab-foundation-social-entrepreneurship- b 858312.html 2011.
- KICKUL J. & LYONS T. Understanding social entrepreneurship, the relentless pursuit of mission in an ever changing world. New York, NY: Routledge. 2011.
- MARTÍNEZ RAMÍREZ J. & ROJAS HERRERA J. Panorama del sector cooperativo mexicano. Unircoop. Vol.1, No. 2. Universidad Autónoma de Querétaro y Universidad Autónoma de Chapingo. México. 2003.
- MULGAN G. Social Innovation. What it is, why it matters and how it can be accelerated. Oxford SAID Business School. 2007.
- OFFICIAL JOURNAL. Rules of Operation of the National Fund for Business Support Solidarity (FONAES) for fiscal year 2011.2010. http://dof.gob.mx/nota_detalle_popup.php?codigo=5173008.
- PHILLS J., DEIGLMEIER K, & MILLER D. Rediscovering social innovation. Stanford Social Innovation Review. Fall 2008. p. 37.
- PONCE Y. & AIROLA R.. Empresas sociales e innovación social desde la perspectiva teórica del Tercer Sector. Octavo Congreso Nacional y Cuarto Internacional de la Red de Investigación y Docencia sobre Innovación Tecnológica. Sinaloa, México. 2007.
- PRIETO HERNANDEZ, D. Social enterprises, challenges and prospects, in Felix Cadena et al (Eds.), The social enterprise and organizational problems, Mexico, Fundación Friedrich Naumann / PRAXIS. 1992. p. 10.
- INEGI, Occupation and employment indicators for the second quarter of 2011. 2011 (http://www.inegi.org.mx/Sistemas/temasV2/Default.aspx?s=est&c=25433&t=1)
- MASLOW A. Maslow's management: a humanist vision for the company today. Ibérica Barcelona. 2005.
- NICHOLLS, A. Social entrepreneurship: New models of sustainable social change. New York: Oxford University Press. 2006.
- PRAHALAD, CK. The fortune at the bottom of the pyramid, eradicating poverty through profits. New Jersey: Wharton School Publishing. 2010.
- REFICCO, E. GUTIERREZ, R. TRUJILLO, D. Social enterprises: a species in search of recognition? Journal-RAUSP Management, 41, 4: 404-418. 2008.

SOCIAL STUDIES CENTER AND PUBLIC OPINION, "Antecedentes", en Fomento cooperativo [Actualización: 23 de marzo de 2006], en (www.diputados.gob.mx/cesop/) (22-05-12).

VERNIS A.. Innovación social local a través del mercado en las organizaciones de la sociedad civil en Iberoamérica. Revista Española del Tercer Sector, n. 13, septiembre-diciembre. Madrid. 2009. Pp 99-132

APPENDIX 1

Interview protocol

Objectives

- Identify if within the Mexican social enterprises there are signs of catalytic innovations.
- Identify if the enterprises that cover, part or all of the five qualities of catalytic innovation are more successful.
- Identify what type of business strategies the enterprises use to achieve success.

Identifying catalytic innovations

- 1) Have you replicated your business model in other communities or regions?
 - a. If yes: Have you obtained the same result?
 - b. If no: Without considering the economics aspects: could you replicate the model in other communities?
- 2) Do you fill a need that has been addressed previously or has not been addressed at all?
- 3) In relation to your competition what makes you different?
- Your product is less costly?
- Your product is of higher quality?
- Your product is simpler?
- Your product is more convenient?
- **4)** Has the organization generated resources, such as donations, grants, volunteers or intellectual capital?

Identifying the structure and strategies of the enterprises

- 5) Type of organization (family, community or private enterprise).
- 6) Main areas where the company operates (locally, regionally, nationally or internationally).

7) What is the main focus of your operations (raw materials, manufacturing, services or information).

- 8) How do you create customer value? (Offering a better price, better quality, availability, product selection, and product functionality)
- 9) What is your strategy for the future? (Have growth through new sources of income, have growth by increasing customer value, increase their productivity by improving their sales process, or increase of their productivity by improving their production process)
- 10) Do you know your competition?
- 11) What makes you different? (Better technology, better product, production process more efficient, better packaging, integration into the community in the process, sustainability or distribution)

About the strategies for social impact

- **12)** What is the purpose of your company? (Generate profits, generate a social or environmental impact, or both).
- 13) What is the main social objective of the company? (Access to energy, financial services, education, housing, capacity building, community development, prevention and mitigation of specific illnesses, employment generation, food security, health, productivity increased income)
- **14)** Who benefits from your product, service or process? (Members of the organization, the community or the region it serves, both).

Identifying whether the enterprise was growing

- **15)** Year of establishment of the organization
- **16)** Number of full-time employees
- 17) Does your business have profits?
- **18)** Has the enterprise grown since its foundation?
- **19)** Since its inception the number of employees in the company, has declined, are the same, has increased?
- **20)** Since its inception the number of products you produce has declined, are the same or has increased?
- 21) Considering the Maslow pyramid, what are the needs that your business has enabled you to meet: (1) meet survival needs, (2) have a stable job, (3) gain acceptance in the community, (4) gain recognition as a businessman and (5) self-fulfillment as a person