INVESTIGACIÓN & DESARROLLO, No. **12**, Vol. **1**: 5 – 16 (2012)
ISSN 2518-4431

RESPONSIBLE INVESTMENTS IN A DEVELOPING COUNTRY: CASE STUDY OF A BOLIVIAN PILOT EXPERIENCE[1]

INVERSIONES RESPONSABLES EN UN PAÍS EN DESARROLLO: ESTUDIO DE CASO SOBRE UNA PRUEBA PILOTO EN BOLIVIA[1]

Ricardo Nogales Carvajal*, Pamela Córdova Olivera* y Laura C. García Sobral
*****_Centro de Investigaciones Económicas y Empresariales_ - CIEE
Universidad Privada Boliviana
rnogales@upb.edu
(Recibido el 03 de octubre 2012, aceptado para publicación el 31 de diciembre 2012)

ABSTRACT

This document presents a pilot experience for the development of Socially Responsible Investment practices in Bolivia that has involved 53 agricultural and agro industrial business from all over the country. This experience is grounded on the need of complementing the micro financial system in Bolivia, in order to better cope with the importance of small-scaled rural businesses and reinforce its capability for promoting a sustainable, socially inclusive economic development process, through the capital market. This pilot builds upon three cores aspects that have been identified as priorities in the Bolivian context: i) the legal foundation of these alliances, proposing modifications to the current legal bodywork, in order to create the Funds for Social Development and their managers, the Investment Societies for Development; ii) the development of Factor Analysis based techniques of risk assessing for investors to be able to engage in alliances with rural businesses, through the creation and co-implementation of specific business plans leading to the achievement of financial and social realistic goals and iii) strategies for monitoring and evaluating these alliances, in order to create and systematize empirical evidence that can lead to the constant perfection of these kind of financial interventions.

RESUMEN

En este documento se presenta una experiencia piloto para el desarrollo de Inversiones Socialmente Responsables en Bolivia, que involucró a 53 micro, pequeñas y medianas empresas agrícolas y agroindustriales de distintos lugares del país. El desarrollo de esta experiencia nace de la necesidad de complementar el sistema (micro) financiero del país creando capacidades para la satisfacción de las necesidades de micro y pequeñas empresas y así, contribuir en mayor medida al desarrollo económico sostenible e inclusivo del país. Esta experiencia piloto contempla la construcción de tres pilares fundamentales: i) la construcción de fundamentos legales para crear alianzas entre negocios de pequeña escala e inversores socialmente responsables, a través de modificaciones al marco normativo vigente, creando así, los Fondos para el Desarrollo Social y sus gestores, las Sociedades de Inversión para el Desarrollo; ii) el desarrollo de un Análisis Factorial para la evaluación de riesgos de inversión y la construcción de planes estratégicos para alcanzar objetivos financieros y sociales y iii) estrategias para el monitoreo y la evaluación de estas alianzas, a fin de crear y sistematizar evidencias que permitan perfeccionar este tipo de intervenciones financieras.

Keywords: Responsible Investing, Factor Analysis, Investment Societies for Development, Funds for Social Development, Risk Assessment.
Palabras Clave: Inversiones Responsables, Análisis Factorial, Sociedades de Inversión para el Desarrollo, Fondos para el Desarrollo Social, Análisis de Riesgo.

1. INTRODUCTION

As in most developing countries, one would think that the development of a solid and dynamic capital market in Bolivia would come only as a natural result of a sustained economic growth process leading to the creation and consolidation of corporations and big enterprises that gradually perceive direct financing mechanisms as better options than indirect, credit driven activities, and of course, allowing the offer of national and international capital to increase accordingly. In other terms, underdeveloped capital markets can be considered as a reflection of the predominance of small-scaled businesses.

[1] This document is one of the results of the research project "Societies for Rural Transformation" of the IDRC and IFAD sponsored research program "*Programa para el Escalamiento de Innovaciones Rurales*". This research project was executed by three Bolivian institutions: Universidad Privada Boliviana (UPB), Centro de Investigaciones para el Desarrollo Regional (CIDRE) and Fundación para el Desarrollo Tecnológico y Agropecuario de los Valles (FDTA-Valles). http://www.escalandoinnovacionesrurales.com/proyectos/escalando-sociedades-rurales

DOI: 10.23881/idupbo.012.1-1e

Indeed, the relative underdevelopment of the Bolivian capital market is evident, as by 2011 the value of active financial assets represented only 1/3 of the value of the stock of active loans. According to the World Bank (2011), the level of capitalization was around 16% of the GDP, far below the Latin American and Caribbean average of 60%. Plus, the use of variable rate instruments is practically inexistent in Bolivia, as the stocks traded do not reach 0.1% of the GDP. Indeed, with more than 80% of micro and small-scaled enterprises in the business structure, there is a limited demand for capital market instruments. In this context, how can the small-scaled businesses be an active part of the financial activities in the country?

Finding plausible answers to this question would imply significant positive returns in terms of inclusive economic development. According to Levine [1] and Nogales *et al.* [2], when a financial system manages to adapt itself to better cope with the structural characteristics of the society it deserves, promoting the inclusion of every enterprise, current or prospective, in the financial dynamics of the country, there are much better chances for the latter to experience a sustainable and inclusive economic development process. If a financial system does not create the suitable mechanisms enabling this capability, skepticism arises around the possibility of creating a socially inclusive society, as small enterprises would be naturally excluded from financial activities due to insufficiency – or lack – of valid real collaterals and/or adequately designed business plans that fit the requirements of financial institutions.

Accordingly to this challenge for economic development, since the 1980's, Bolivia has concentrated the improvements of its financial system mostly on the creation of more socially fit ***indirect*** financial mechanisms. Bolivian micro financial institutions can be classified in two general groups: the Private Financial Funds (FFP, in Spanish) and the Financial Institutions for Development (IFD, in Spanish). The first are urban concentrated micro financial institutions and the second have a more explicit concern about financing rural activities, as stated by Nogales and Córdova [3]. Both types of institutions have presented remarkable dynamics from 2004 to 2010, with average annual loan growth rates of 19.5% and 20% respectively and consistently decreasing default rates, attaining 1.25% and 1.4% by the end of this period. This reality has yielded very positive outcomes in terms of reach of the financial system and has led to one the most renowned and internationally reckoned micro financial success stories, concentrated in micro loan activities.

Micro loans are, indeed, a plausible answer to the question raised above. As evidenced in Alem *et al.* [4] and Nogales *et al.* [2], one cannot deny that the Bolivian micro financial system has added significantly to the financial depth, social inclusion and economic development in the country, for it has given unprecedented chances for small-scaled businesses to be created and develop. This success can be considered as a positive revolution towards the conception of inclusive finance in Bolivia. However, the potential of micro loans for promoting social inclusion is not unlimited. In effect, one particular economic sector has not been a part of the micro financial success that we have described thus far: the agricultural sector.

As a result of what one could perceive as a natural process of economic development in Bolivia, the importance of this sector in the overall economic activity has been constantly reducing (from 15% by 1990 to 10% by 2011) as well as the real activity of the sector itself (-1.1% per year in average within the period 1990-2011). Without suggesting a causal relationship, it is important to realize that the loans for this sector have never exceeded 5% of the total loans in the last 10 years. The importance of this reality lies on the fact that today the agricultural sector remains the largest in terms of the amount of force labor it absorbs. One third of the Bolivian population lives in rural areas, where poverty rates have been consistently above 65% during the last decade and where, by the end of 2011, agricultural activities engaged 81% of the economically active population. This means that 31% of Bolivia's economically active population's income is linked directly to these activities.

The facts that have been presented stress the need of further innovation in terms of mechanisms that enable the national financial system to reach current and future enterprises that not even micro financial institutions have proven capable of deserving, especially in rural areas.

We propose that the revolution that has caused the creation of micro financial specialized institutions for the indirect financing system can be complemented by a revolution in the mechanisms of direct financing that targets rural business, in order to promote both social inclusion and the development of the capital market in the country. Socially Responsible Investments (SRI) have the potential to accomplish both goals simultaneously, as they consist of direct financing transactions that look explicitly for financial and social returns, as stressed in Crombrugghe [5] and González-Vega [6]. In order to maximize the benefits of the fund injection, this type of investments often build upon the creation of a strong synergy between the investor and the receptor that work together for the development of the business. This level of co-participation can be achieved through venture capital mechanisms with social vision, i.e. the very essence of SRI.

Today, this type of investments is promoted by public, private and academic organizations throughout the world. The most internationally representative body of promotion of this mechanism of social finance is the United Nations Principles for Responsible Investment (UNPRI) that gathers 1 121 financial institutions and private investors as subscribers of 10 principles conceived to deepen and establish this practice in favor of a more inclusive economic development through the international financial system.

Currently, there is not a Bolivian institution that is formally committed to promote the development of social finance in the country according to the UNPRI. However, there have been successful stories, though sporadic, in terms of investments through venture capital mechanisms with social vision that have yielded important returns both financial and social, even if the social returns where not explicit in the conception of these investments. Two good examples of this financial practice are the creation of Naturaleza S.A. (fruit and herbal infusions) in 1993 and Irupana S.A. (Andean cereals) in 1985. These two agro industrial enterprises have been formed through financial alliances between small rural agricultural businessmen and well established national entrepreneurs. These two enterprises have set explicit goals of achieving social returns through their businesses operations; Irupana S.A. for example, works within agro-ecologic principles that encompass the wellbeing of every person involved in their business chain. In a similar manner, Naturaleza S.A. have set their business actions within what they call an *eco-social* philosophy, that consists of the pursue of economic welfare for all the communities involved in their productive chain, whilst maintaining an environmental equilibrium and constantly improving the quality of life of the members of these communities. Today, the volume of operations of these two social enterprises allows them to be a part of the Bolivian capital market through fix rate instruments. Thus, these two examples constitute evidence that there is great potential for constructing inclusive self-sustainable economic development through the creation of this type of alliances and we argue that the social impact could be even bigger if social returns are explicit goals in the investment process and not only a corollary of financial success.

According to BID-OVE (2004), in order for this social finance mechanism to be sustainably developed, one needs to build upon three important pillars:

(1) An explicit and committed support of Public Authorities towards the creation and consolidation of a social capital market is crucial. Public Authorities are the only credible institutions in the country that are able to provide legal security to all the parties that take place in a social capital market, namely: i) the socially responsible investors, which are the suppliers of social funds; ii) the receivers of the funds that form the demand side of the market and iii) the financial institutions that communicate the first two and could, potentially, take active roles in order for the communication of demand and suppliers to be sustainable and successful. Currently, Bolivia does not have legal bodyworks specifically designed to promote social finance through the direct financial system, with the characteristics that we present in this document.

(2) Financial Institutions need to be able to successfully manage the risk of their investments through robust and objective mechanisms that allow them to identify businesses that have the potential to be scaled up and become financially self-sustainable from those that are destined to operate at low financial scales enabling them only to survive. In the Bolivian case, this point is particularly important because of the structure of businesses in the country; as we have stressed before, 80% of the enterprises can be considered as micro and small and often operate within schemes that differ from formally established businesses. This means that most of the businesses in Bolivia often lack financial and management information structured in the way most financial institutions and the Public Financial Authorities require for officially applying for funds. Within this context, in order for a social capital market to emerge, there is an urgent need of risk assessment and monitoring techniques different from those that have not proven suited enough for an important part of businesses, especially in the rural areas of Bolivia.

(3) The systematization, monitoring and socialization of successful stories in terms of achieving financial and social returns through social capital mechanisms is very important, according to López-Acevedo [7], in order the construct a demonstration effect, motivating traditional investors to move gradually towards social investing. We argue that the monitoring and impact assessment techniques need to take into account both micro and macro level evaluations and have the potential of being internationally comparable. This proves to be quite an ambitious and demanding task, as Harji and Hebb [8] stress that international consensus on ways of evaluating impacts of social capital markets is yet to be found.

We argue that the accomplishment of these three challenges would lead to the creation of a social capital market in Bolivia by enabling socially responsible investing and fostering the ignition of an inclusive economic development process. We propose that this type of investing can be actualized by the creation of alliances between rural entrepreneurs and socially responsible investment fund managers. The enterprises resulting of these alliances have as a distinctive characteristic to set both social and financial returns. As stressed in Geobey *et al.* [9], the quest of these *blended* results is typical of **socially responsible businesses**, which are organizations that lie in the middle of a large spectrum of enterprises that go from operational charity, where the goals are purely social, through pure commercial enterprises, where the goals are purely financial.

For a business to be considered as socially responsible, the explicit quest for blended returns is very important. Thus, in order for the businesses to create and truly adopt this kind of vision, both the investor and the fund receptor, need to work closely in order to identify and build upon the business's characteristics that can lead to the accomplishment of the goals. For this, the alliance should be built upon a socially responsible business plan that encompasses both financial and social returns. As in ordinary investment operations, once self-sustainability has been attainted and a solid social vision has become a part of business itself, the fund manager should exit the alliance.

It is with this vision and based on these facts and previous research efforts that we have worked in order to set the foundations for a social capital market in Bolivia by designing and testing a methodology around the construction of the three pillars that have been described. An important potential demand for this type of financial operations has been identified in workshops that have been sustained in 5 workshops around Bolivian territories[2]. In the following sections, we will present highlights towards the construction of each pillar, as well as the results of the pilot implementation of the methodology.

2. LEGAL AND NORMATIVE ISSUES

One key aspect for the creation of business partnerships between socially responsible fund managers and rural entrepreneurs that we have mentioned above is their legal foundation. Following García and Tejada [10], up until now, Bolivian laws do not allow any kind of financial institutions to capitalize businesses that are not listed in an official, national or international, stock market. Naturally, none of the potential rural enterprises that are targeted by this new financial proposal are listed in a stock market; their access to financial funds though the indirect markets is already difficult and their access to direct markets could be perceived as impossible.

In order to overcome this limitation, we propose the creation of a new type of financial institutions legally capable of managing private and public investment funds channeling these resources to suitable rural enterprises. We call these financial institutions the "Investment Societies for Development".

The proposal for the creation of this new type of institutions is grounded on the fact that the actual institutional structure and the main public policies included in the National Government Program and the National Development Program include as an explicit need for Bolivia's economic inclusive development, the creation of novel and better suited financial mechanisms that allow currently ignored productive sectors to become active participants in the national financial and economic dynamics. One of the National Development Program's main goals is to build self-sustainable capacities to provide financial support to the productive sector, with special emphasis in micro/small businesses and rural enterprises. Is it argued that this is a very good initiative as financial empowerment of rural entrepreneurs can bring about the empowerment of indigenous cultures, traditions and values. The public Authorities have manifested their will to enforce Bolivia's economic development process through the establishment of a Communitarian Economy, which builds upon productive processes related to rural micro entrepreneurs, indigenous organizations and seeks explicitly to merge the latter with traditional productive activities. It is clear that the mechanism that we propose could be an important mean for the accomplishment of these ambitious, yet fully legitimate, inclusive development goals.

In a more operative order, the Financial System Supervising Authority (ASFI, in Spanish) is the public institution in charge of the creation, regulation and supervision of all the initiatives for the improvement of the financial systems capacities. According to the National Constitution (Art. 330 al. III), there is an explicit mandate to promote the creation of non-bank institutions devoted to socially productive investing.

Currently, there are two large legal bodyworks that regulate the financial activities in the country: i) The Law for Banks and Financial Entities, that governs all financial intermediation activities and ii) The Law for the Stock Market, that governs all direct financial activities and their main executors: the Investment Funds Management Societies (SAFI, in Spanish). Neither of these laws are suited for regulating the kind of financial activities that we propose because i) it is not a financial intermediation activity and ii) it concerns enterprises that are not listed in the stock market.

It is because of these limitations, that the financial mechanism that we propose incorporates the creation of a new legal framework that leads to the formal recognition of the two novel legal figures in the country: the Investment Funds for Development and their managers, the Investment Societies for Development.

In the law project, the funds managed by these new Investment Societies can be composed of both private and public sources. The composition of these funds builds on the investors' free will and acknowledgement that the resources will be channeled to rural enterprises through venture capital mechanisms with social vision.

2 These workshops have taken place in La Paz (1), Sucre (1), Oruro (1) and Cochabamba (2). They have gathered together one potential investor (CIDRE) that shares the vision of blending financial and social returns in their activities and rural entrepreneurs that have experienced difficulties accessing to funds through current financial mechanisms offered in the country (mainly credit and micro credit).

This law project builds upon the current normative framework for SAFIs, including the possibility for the new Investment Societies to realize temporary investments in the financial structure of small businesses that are willing to accept new shareholders, even if they are not officially registered in the national stock market and have not publically offered their financial assets though conventional direct funding mechanisms. It is also contemplated that, before receiving these new funds, the businesses need not to possess a division of their social capital in shares, as these is proposed to be an ulterior requirement, once the funding has been approved. This precision is important as most rural enterprises in Bolivia are not corporations, but have a much simpler equity structure: personal, limited liability or family businesses.

Given the nature of this legal framework, the fact that it is grounded on Constitutional mandates and its potential for supporting the creation and sustainability of the new financial mechanism that we propose, it has been very well received amongst national legislators, it is currently been discussed at public levels.

3. RISK ASSESSMENT

The legal framework that we propose implies the creation of a new type of financial institutions in the country devoted so SRI. Therefore, novel techniques of risk assessment are needed in order to cope with the structural characteristics of the businesses that are targeted for this kind of investments. Currently, active financial institutions have not yet managed to raise their rural participation to levels more accordingly to the economic development needs of the country. We argue that this is due to two main reasons. The first is the important levels of informality in rural areas, which makes credit risk assessment more difficult as traditional mechanisms rely heavily (or solely) on financial states with features of detail and periodicity that correspond to formal businesses. This difficulty can partially explain the use of micro loan techniques based on group solidarity have been reducing over time in favor of individual real collateral grounded techniques, which is evidenced in Alem *et al.* [4] and Nogales and Córdova [3]. The second is the impossibility for a large number of rural entrepreneurs to present valid real collaterals to financial institutions. In effect, according to Bolivian Law #2650, rural agricultural lands, which are the most valuable assets of agricultural businessmen, are guaranteed against seizure.

In a revision of the literature, Geobey *et al.* [9] stress that the main difficulty for socially responsible investors and fund managers is the creation of suitable risk assessment techniques where there are goals other than financial that need to be taken into account. In effect, the risk assessment for investments where financial profit is the only goal are very well known, well documented and are permanently perfected reaching impressive levels of detail. There is much less consensus around risk assessment techniques for socially responsible investing. Nevertheless, as stated in Weber *et al.*[11] traditional risk assessment techniques are a suitable starting point for the development of complementary mechanisms, as there seems to be an academic and practitioner agreement around the fact that social investments must not influence negatively on the financial performance of the investment portfolio.

Therefore, we propose a new investment risk assessment methodology that, whilst maintaining aspects of objectivity and rigorousness, is suited for rural agricultural business even if they are not formally established.

3.1. DATA

As for any kind of risk assessment, gathering adequate information is crucial. In a general manner, for evaluating risks in any economic activity, regardless of its scale, one needs to be able to gauge the impacts of internal and external sources of risk on the operations and the business, in order to identify factors or situations that can be negative and the frequency or probability of their occurrence. For this, we have constructed a specific form that allows collecting current financial, economic and social information of a business that is interested in accepting a responsible investment fund manager as shareholder in their business. The information collected through this instrument contains 120 observable indicators that we propose to divide in five potential risk sources: Geography, Industry, Normative and Regulation, Competitiveness and Management (see Figure 1). To encompass the essence of socially responsible investing, these indicators were complemented with the social benefits that each business currently generates to their employees, their families and the communities that are involved in their productive chain. This social information can be used to construct a baseline for i) the directions in which socially responsible business plans can be constructed and ii) the social impact assessment of the investments.

The instrument that we have proposed for collecting this information has been tested in a national level pilot experience where we have managed to contact 170 rural agricultural enterprises, 53 (31%) of which were able to provide suitable information regarding both internal and external risk indicators described above, as well as for the construction of the social impact baseline. An important aspect of the pilot experience is the fact that the collection of this information required guidance and a close interaction with the entrepreneurs. Even if the entrepreneurs possess the information that is required to adequately assess the economic performance of their businesses, they need close assistance in order to be able to provide it, as they do not keep ordered files and registers, at least in the way that traditional bankers or investors are used to. In the Bolivian case, this assistance has proven successful, given the number of information if allowed to collect.

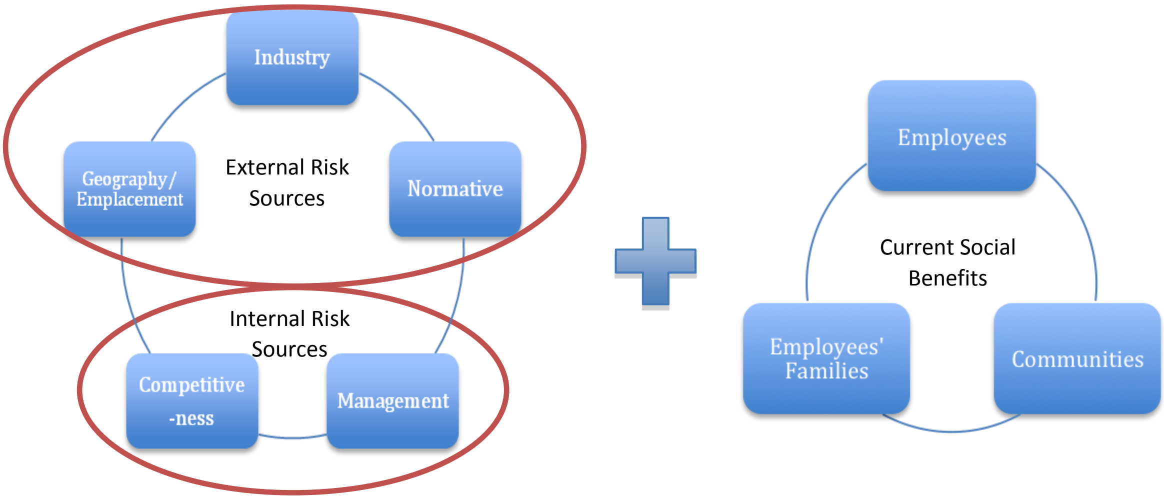

Figure 1 - Risk Sources and Social Benefits.
Source: Own

It is important, at this stage, to mention that this pilot experience cannot be considered as an experiment as it has only involved enterprises that were willing to receive funds from an active and socially committed investor. We stress that the fact of having found that number of enterprises can be considered as a success, and a proof that there exists demand for complements to traditional loan and micro loan offers. Plus, we argue that one should also perceive as a success the fact of proving that adequate information from rural businesses that have not succeeded in getting access to funds though current (micro) loan mechanisms can be obtained and validated through a participative approach.

3.2. RISK ASSESSMENT TECHNIQUES

We have classified the businesses for which we have collected all the information in two generic groups: i) the agricultural businesses, which do not add significant value to the product as opposed to ii) the agro industrial businesses. From there, in order for a healthy investment portfolio to be created, it is crucial to rely on an objective and rigorous selection of the businesses with the most potential of attaining self-sustainability among those for which validated information was available. Following ASIF, we developed a statistical/econometric technique suitable for identifying and measuring risk factors in a business using an Exploratory Factor Analysis [1, 12]. Once the risk factors were identified and an objective quantification for them was established, all the potential fund receivers were ranked according to the risk level they represent for a potential investor.

Technical details of this factor analysis application can be found in Nogales and Córdova [3]; here we just want to emphasize the main reason why we think this technique offers a very robust and elegant framework for risk assessment in contexts that are not well known for the investor.

First, as we have mentioned before, the risk of any economic activity needs to take into account the elements that can be negative for the businesses. Even if some of these elements can be identified, they will naturally result in an underestimation of the actual (complex) risks of the activities, and only experience will gradually lead to the proper estimation of the latter. The factors analysis builds upon the fact that any observable indicator that one can collect is only a partial manifestation of a much abstract and complex source of risk. Actually, the levels of these abstract and complex sources of risk are the explaining factors the observable indicators that we can obtain or construct.

Formally, if we can obtain m traditional observable risk indicators (OI) for n businesses, they should be perceived as a result of the levels that each business possesses in a certain number of abstract and unobservable risk factors (RF). These relationships cannot be exact, which is why one should take into account that there is a part of the observable risk indicators that is not due to the risk factors, but to unknown stochastic elements (ε):

$$OI_i^j = \beta_1 RF_i^1 + \beta_2 RF_i^2 + \cdots + \beta_k RF_i^k + \varepsilon_i \qquad i = 1 \ldots . n; j = 1 \ldots . m$$

Factor analysis can, not only propose elements for identifying the unobservable risk sources, but also provide a quantitative measure of the latter for each of the business that is been analyzed.

Besides the elements that can impact negatively on a business, an adequate risk assessment needs to gauge their probability of occurrence. Factor analysis can also construct an objective measure for this by measuring how common are negative values in the observable risk indicators amongst the group of enterprises that are been analyzed. Quantitatively, this is reflected in the estimated values of the influence that has each identified risk factor on the observable risk indicators (β).

During the pilot implementation (Table 1), this risk assessment technique has allowed us to identify that in order to consider alliances with agricultural business in the country, one should take into account, in first place, the *Rent-generating capacity* of the business, as it has been identified as the main risk factor. In effect, 24% of the measurable risk in this type of businesses is linked to deficiencies in this matter. We argue that the lack of product differentiation in this type of activities puts this business in serious risks of operating within minimal cost-coverage conditions, as agricultural markets function according to a very competitive economic mechanism in the country. The second most relevant risk factor identified for this type of businesses is the *Value-adding capacity,* which accounts for 17% of the measurable risk for this type of businesses. This result proves that businesses that rely on some kind of industrial transformation of their product, even if it is very simple, perform significantly better than those who don't; but more importantly, this capability has been objectively quantified.

TABLE 1: RISK FACTORS FOR AGRICULTURAL BUSINESSES

Indicator	**Factor 1**	**Factor 2**	**Factor 3**	**Factor 4**	**Factor 5**	**Factor 6**	**Factor 7**
Operational Utility Margin ROA (Total Assets) ROA (Productive Assets) ROE Break-Even Point Profitability on Sales	Rent Generation Capacity						
Economic Value Added Margin Concentration Sales Concentration Client Satisfaction Marketing		Value Added Generation Capacity					
Mean Labor Productivity Rotation of Productive Assets Rotation of Total Assets Mean Capital Productivity			Efficiency in Use of Production Factors				
Financial Dependency Liquidity Deficiency				Financial Management Efficiency			
Board Members' Experience CEO's Experience Sales Growth					Sales Management Efficiency		
Spoiled Inputs Subsidized Production						Productive Autonomy	
Automation Absence of Collaterals Supplier Loyalty							Production Costs Management Efficiency
Weight (according to Factor Analysis)	**24%**	**17%**	**17%**	**12%**	**12%**	**9%**	**9%**

Source: Own with data from Nogales and Córdova (2012); Nogales *et al.* (2012)

As for the agro industrial businesses, we were able to identify the *Management Efficiency* as the main risk factor, accounting for 21% of the measurable risk in this type of activities. The second most important risk factor is the *Productive Efficiency*, which captures 19% of the measurable risk. These factors are significantly different from those related to agricultural businesses, proving that the methodology can be and must be adapted when considering potential alliances with different types of businesses that propose different risk factors for the socially responsible fund managers.

3.3. COMPLETING FINANCIAL RISK ASSESSMENT

Once the main risk factors were identified, one can say that the investor has a better understanding of some of the risks that entail each of the business that has been considered for funding. An important element that needs to be taken into account whilst considering socially responsible investing is the combination of the financial risk assessment that we have presented above with the generation of social benefits.

For this, we proposed the construction of socially responsible business plans in order to cope with them and set grounds for building self-sustainable, socially committed businesses. In order to construct these socially responsible business plans, we held participative workshops with the original businessmen, representatives of the fund managers and technicians in engineering and economics. The goal of the workshops was built upon the disposable information regarding the current social benefits that are generated by each business in order to set realistic financial and social goals and strategies for achieving and assessing them.

For the pilot implementation, seven business plans were designed and, once the alliances have been solidly and legally constituted. Through these business plans, it is expected to set grounds for continued social impact through financial self-sustainability. The plans were designed to be implemented in a span of time of 10 years; it is expected to increase the added value in US$ 1.6 million and to generate 107 new working posts and improve another 106 by linking them to short term and long term social security services. For each business plan to have socially responsible shades the real capabilities of generating social impact for each business were assessed through the social impact baseline and achievable and objective goals were set. For example, for a potato chips and snacks producer, it has been established as a fixed cost the fact of allocating 5% of yearly revenues to the producers of the agricultural products that provide them with their main productive input, which is a community based association of potato producers; this will help them increase the value and quality of their product, giving them a stable and secure income source and should enable them to increase their clients and create export potential.

Through this pilot implementation of the methodology, it has been proven that is possible to find potentially self-sustainable and socially committed rural businesses that have not yet been a part of the financial activities in the country, not even through the micro financial revolution. It has also been proven that is possible to ignite socially responsible business plans from small businesses, which seem to be willing to blend financial returns with social commitment, as there is no need to become a big corporation before been committed to link their activities to explicitly set social benefits.

4. MONITORING AND ASSESSMENT

The third core aspect for the construction of a social capital market in Bolivia and a sustained development process is the creation of methodology for monitoring and assessment of the alliances. This aspect is crucial as it is the only way to generate and systematize successful experiences regarding this type of financial practice both at a financial and a social level. It is through these experiences that the offer of funds for socially responsible investments can be expanded and this portion of the capital market can be developed. We follow Harji and Hebb [8] arguing that there is not one standard methodology for this information to be constructed and what we propose encompasses the useful information that has been collected in earlier stages of the pilot experience.

The proposal builds upon the Theory of Change or Causal Model presented in Richards and Panfil [12]. The investment plans constructed by the investor and the rural entrepreneur establish which and how short term actions result on medium term impacts and set grounds for long term impacts. This identification enables to create a history for the business based on cause and effect relationships.

In order to identify the levels of impact that will be measured, it is important to emphasize that rural businesses play two important roles:

- At an economic level, rural businesses are units that seek to satisfy the needs of all their owners in terms of profitability and productivity. This is one of the main reasons why financial goals need to be explicitly set in the businesses plans; the other been the self-sustainability of the business.

- At a social level, rural businesses are strongly linked to communities with high levels of poverty. The scaling up of their activities is an undeniable source of high social impact. In this context, social impact need to be conceived in a very large sense, as it not only encompasses improvements in the material quality of life of people in these communities, but also, takes into account, environmental, ethical, moral and legal aspects of these communities. It is important to acknowledge that the development of rural businesses impacts greatly on the suppliers, family workers and social configuration of the communities where they belong.

4.1. ECONOMIC EVALUATION

We argue that the information collected for risk assessment can be the starting point for the monitoring of the business formed through SRI practices. The risk factors have been identified and quantitative measures for them have been constructed. The importance of all the quantitative risk indicators in these measures has been identified through objective weights, allowing to identify the businesses that present the lowest levels of risk amongst all the appliers for the funds. Therefore, we have constructed quantitative measures for the *weaknesses and strengths* of each rural business. Consequently, it is possible to perform an individually designed evaluation and monitoring, starting from an objective assessment of each businesses' situation.

For the risk assessment that was performed, an important difference has been made between agricultural rural businesses and agro industrial rural businesses, as they operate within intrinsically different contexts. This has led to the use of 25 and 17 quantitative risk indicators for risk assessment of agricultural businesses and agro industrial businesses, respectively. The weaknesses and strengths of each business are therefore identified taking into account these differences as well.

Each business possesses a score in all of the risk factors that were identified, which by construction represents precisely the strengths and weaknesses of this particular business, relative to the others against which it is been compared. We propose to monitor the risk indicators resulting from the risk factors where each businesses performs better (above average) and worse (below average) that the others. Those aspects that have been identified as below average need corrective actions, plans and strategies in order to enhance the business' performance at this particular level.

The periodicity of the monitoring and evaluation need to be defined individually for each business. In effect, this depends on the risk factors that are been monitored in accordance to the particularities of the business. For example, agro industrial businesses, normally involved in more dynamically organized industries, that have deficiencies in terms of liquidity need to take permanent actions, as opposed to agricultural businesses that require liquid assets during agricultural campaigns only (once or twice a year).

4.2. SOCIAL EVALUATION

As for the financial monitoring and evaluation, social benefits cannot be standard, as we recall that each business sets different social goals according to their possibilities and priorities.

It is because of this very reason that monitoring of social impacts benefits from much less consensus that the monitoring of financial impacts, as Harji and Hebb [8] stress. Much more that quantitative measures are needed in order to truly grasp the social impacts yielding from the development of a business. Nevertheless, the indicators proposed, in Table 2, as complements to the financial risk assessment before in this document can be starting points and articulators of a more qualitative and periodic evaluation of the social impacts generated by SRI financial practices.

It is very important to keep in mind that social impacts cannot be grasped in a short period of time. However, social *results* can be collected in the short term, and track how they develop into impacts in longer periods of time. For this link to be evaluated, López-Acevedo [7] shows that the approach of Participative Evaluation has proven to be quite successful. This approach consists of coordinating sustained participative activities (workshops, semi-structured interviews, etc.) with employees, their families, providers and members of the community where the business operates and construct a better idea of the social impacts that are been generated instead of a simple numerical figure.

In this document, we have presented the key points of a pilot experience for developing SRI in Bolivia. The lessons learned through the implementation of this pilot were highlighted, in order to set grounds for further implementations and experiences of this particular type of financial practices in the country.

TABLE 2: SOCIAL INDICATORS

Variable	Indicator	Quantification
Human Capital Development	Investment in Human Capital	Training Costs / Sales
	Training Programs	Employees participating in such programs / Total Employees
	Productivity – Compensation	Mean labor productivity / mean wage
Workers' Benefits	Mean Wage	Mean wage in the enterprise / Mean wage in the industry
	Access to Social Security Services	Social Costs / Mean Wage
	Individual Subsidies	Individual Subsidies / Mean wage
	Labor Security	Costs in this aspect / Sales
	Labor Stability	Total current Workers / Dismissals
Projection to Families	Family Subsidies	Family Subsidies / Mean wage
Projection to the Community	Direct Labor Posts Offered	New labor posts offered in the last 2 years / Community Economically Active Population
	Indirect Employment	Number of Suppliers / Community Economically Active Population
	Contributions and Support to Community Projects	Contributions / Equity
Projection to national or Regional Levels	Investment	Enterprise Investment / Public Investment
	Alliances with private and public organizations	Number of alliances
	Social Capital	Number and Size of networks the enterprise belongs to
Quality and Environment	Environmental Control Systems	Equipment and systems acquisition / Sales
	Environmental Norms	Implict costs / Sales
	Innovation for Environmental Control	Costos of innovation in this aspect / Total costs of innovation
Legal Aspects	Labor norms accomplishment	Number of met criteria / Total Criteria

Source: Own with data from Nogales and Córdova [3]; Nogales *et al.* [2]

5. CONCLUSIONS

The pilot experience started from the confirmation of a legitimate potential demand for funds through investment mechanisms that encompass both financial and social goals, i.e. Socially Responsible Investments. This has been possible by sustaining workshops with entrepreneurs that have had limited access to funds through the traditional financial and micro financial systems. The idea of blending financial and social returns as explicit goals for the investor and the receptor of the funds, reinforced by the commitment of the investor in the design and implementation of specific business plans in order to achieve these goals, has proven to be attractive for this kind of businesses.

In order to set grounds for the scaling up of this financial practice we have worked on three core aspects that are inexistent in Bolivia: i) the legal foundation for the scaling-up and institutionalization of Socially Responsible Investments i) the proper risk assessment techniques for this type of operations, i.e. a *mix* of financial and social aspects and iii) strategies for monitoring and evaluating these activities.

This pilot experience has yielded a detailed revision and proposal of complements to the law of the Bolivian capital market and that of financial institutions. Is has been proposed to create two novel legal figures in the country. First, *The Investment Societies for Development*, which are the managers of the investment funds that are available for the creation of these alliances, i.e. the creation of businesses that are co-managed by these societies and the original businessmen in the quest of blended financial and social impacts. Second, *The Investment Funds for Development*, which are the funds themselves that can be formed by private and public, national and international contributions from any investor willing to put their funds available for the ignition of projects that seek both financial and social returns. This legal proposal is currently under revision of competent public authorities.

A Factor Analysis has proven to be a suitable mechanism for assessing of the risk involved in these financial activities, even considering businesses that do not operate within formal mechanisms. This technique has proven to be successful in the quest of relaxing real collateral demands for funding, replacing them with a better understanding of the risk factors inherent to the business. These objective risk factors have allowed identifying the strengths and weaknesses of each business and have been complemented with their potential of generating social impact. It has been proven that this technique sets a suitable path for the construction of specific socially responsible investment plans and the formation of alliances between the investor and the original businessmen to implement those plans. In these plans, the individual capabilities of generating social impact are taken into account and the weaknesses and strengths are the main focus of action planning.

The design of a monitoring and evaluation mechanisms that were proposed build from the recognition that there is, still, no international consensus for this practice. It is important to acknowledge the individual capacities of each business in order to gauge the impact that it can generate. It is important to mention, that this pilot implementation has been limited to micro-level monitoring, but there is a great need of mechanisms that expand this monitoring to a macro-level.

We consider that the pilot experience that has been presented has set solid grounds for the development of the capital market in Bolivia, in a direction that seems more suitable to the countries reality: Socially Responsible Investment Funds. We argue that this financial practice is more suitable because it gives small-scaled business (which are the majority) the chance to be a part of the capital market in the country. There are still great opportunities and challenges for this practice to be regular in Bolivia, but the pilot that has been carried on represents a step forward in this direction, as has allowed identifying some lessons to be learned from the specificities of the country.

We are aware that this is just one step forward that needs to be perfected, towards the construction of a socially inclusive development process in the country. We argue that thinking of novel ways of igniting this process are, with no doubt, the way to start dealing with the structural characteristics of our society that have forced us to postpone this kind of economic development for far too long.

6. REFERENCES

[1] T. Levine. “Finance and Growth: Theory and Evidence.” In: *Handbook of Economic Growth*, vol. 1A. P. Aghion and S. Darlauf, Ed. Netherlands: Elsevier, 2005, pp. 865-923.

[2] R. Nogales et al. “Hacia la Creación de Sociedades de Transformación: Sentando Bases para Potenciar Inversiones Responsables a Riesgo Compartido en Bolivia.” Internet: http://www.escalandoinnovacionesrurales.com/productos/category/7-4-investigaciones?download=30%3Aidesarrollo-economico-inclusivo-a-traves-del-sistema-financiero-una-revision-analitica-del-caso-boliviano- , 2011. [Dec. 26, 2012].

[3] R. Nogales and P. Córdova. “Midiendo el riesgo de inversión en emprendimientos rurales: Sentando bases para potenciar inversiones responsables a riesgo compartido en Bolivia.” Internet: http://www.escalandoinnovacionesrurales.com/productos/category/7-4-investigaciones?download=31%3Amidiendo-el-riesgo-de-inversion-en-emprendimientos-rurales-sentando-bases-para-potenciar-inversiones-responsables-a-riesgo-compartido-en-bolivia- , 2011. [Dec. 26, 2012].

[4] J. Alem *et al.* “Bolivia: frente a la comercialización y la competencia en las micro finanzas, ¿Qué rol deben tener las políticas públicas? In: *Microfinanzas y Políticas Públicas*. A. Valazza, and B. Balkenhol, Ed. Mexico: Plaza y Valdés, 2010, pp. 173-192.

[5] A. Crombrugghe. (2004). “El Capital Riesgo en Bolivia: una Alternativa para la Financiación Rural.” *Zoom Micofinanzas*, [Online], vol. 15. Internet: http://www.sosfaim.be/pdf/publications_es/zoom_microfinanzas/capital-riesgo-bolivia-alternativa-para-financiacion-rural-zoom-microfinanzas15.pdf [Dec. 26, 2012].

[6] C. Gonzáles-Vega. “Fondo de Capital Riesgo: Comentario.” Internet: http://www.grupochorlavi.org/php/doc/documentos/Fondodecapitalderiesgo.pdf , 2003. [Dec. 26, 2012].

[7] A. López-Acevedo and H. Tan. *Evaluación de Impacto de Programas para PyME’s en América Latina y el Caribe*. Mexico: Banco Mundial, 2010.

[8] K. Harji and T. Hebb. “The Quest for Blended Value Returns: Investor Perspectives on Social Finance in Canada.” Internet: http://www3.carleton.ca/3ci/3ci_files/Documents/Social_Finance_in_Canada.pdf, 2009. [Dec. 26, 2012].

[9] S. Geobey et al. “Enabling Social Innovation through Developmental Impact Investment.” Internet: http://sig.uwaterloo.ca/sites/default/files/documents/Developmental%20Impact%20Investing%20-%20Geobey,%20Westley,%20Weber.pdf. 2009. [Dec. 26, 2010].

[10] L. García and F. Tejada. “Análisis de los Tipos Societarios y Asociativos Existentes en Bolivia para Viabilizar las Inversiones de Capital Riesgo.” Internet:

http://www.escalandoinnovacionesrurales.com/productos/category/6-3-documentos-de-resultados?download=35%3Aanalisis-de-los-tipos-societarios-y-asociativos-existentes-en-bolivia-para-viabilizar-la-inversion-de-capital-riesgo , 2011. [Dec. 26, 2012].

[11] O. Weber et al. "The Financial Performance of a SRI in Times of Turmoil." Internet: http://accounting.uwaterloo.ca/seminars/09-10papers/04%20Weber.pdf. 2008. [Dec. 26, 2012].

[12] M. Richards and S.N. Panfil. "Manual para la Evaluación del Impacto Social de los Proyecto de Carbono Terrestre." Internet: http://www.forest-trends.org/documents/files/doc_2458.pdf. 2010. [Dec. 26, 2012].