Implementing a sustainable CSR Strategy through a System Dynamics Perspective: evidences from a Colombian case-study

Enzo Bivona (*), Sonia Herrera Daza (**)

Abstract

During last decades, Corporate Social Responsibility (CSR) strategies received a growing attention from both businesses and non profit organisations. However, very often organisations fail to correctly implement a successful CSR strategy.

Through the analysis of a case-study, this paper tries to demonstrates how a CSR strategy could fail in the long term if a open-loop logic is adopted. On the contrary, by making explicit the feedback loops structure underlying a CSR strategy, the system dynamics approach is likely to better support decision makers in implementing effective CSR strategies able to foster sustainable long term growth.

After discussing the main benefits and limits of the CSR concept reported in literature, the case-study is introduced and the method adopted to introduce a CSR strategy is explored. Then, such an approach is reconsidered in a feedback perspective and presented with reference to the case-study investigated. Finally, conclusions and further remarks are outlined.

Keywords: corporate social responsibility, non profit organisations, learning, system thinking, system dynamics, Balanced Scorecard.

1. Introduction

During last decades, Corporate Social Responsibility (CSR) strategies received a growing attention from both businesses and non profit organisations (Kotler and Lee, 2005; Soonawalla and Alnoor, 2005). However, there is still lack of simple descriptions on how firms implement CSR intentions. Furthermore, the analysis provided often suffer of methodological inconsistencies and very seldom take into consideration a system perspective (Porter, 2008). As a consequence of the above remarks, organisations fail to correctly implement a successful long term CSR strategy (Schwartz and Gibb, 1999).

The purpose of this paper is to analyse the concept of CSR and to understand how it can be effectively introduced in a non-profit organisation. To this aim, an analysis of the feedback

^(*) Assistant Professor in Business Management, University of Palermo (Italy), Faculty of Political Sciences, Master Phil. in System Dynamics, University of Bergen (Norway), CED4 System Dynamics Group, enzo.bivona@unipa.it, http://www.ced4.it/, Corresponding author

^(***) Emssanar ESS, Master in Managing Business Growth through System Dynamics and Accounting Models, University of Palermo, soniablus@hotmail.com

loop relationships underlying the design of a CSR strategy in a Colombian non-profit organisation has been conducted.

Emssanar is a non-profit organisation aimed to provide health care insurance services to poor people and to foster socio-economic growth in the South-West of Colombia.

This initiative started in 1994 in the City of Pasto in the Nariño Region through a financial support of the national government. Emssanar initially founded as a cooperative, provided health care insurance services to poor people. This service has been immediately appreciated in the Region, and allowed the organisation to record a growing number of members.

Based on such a positive result, the founders recognised the opportunity to provide other health care services. As a consequence, new partners' organisation were created. In particular, in 2002 the Emssanar Group embodied:

- Emssanar ESS, a health care insurance provider;
- Emssanar IPS, a small chain of first aid hospitals in different municipalities;
- Emssanar pharmacy, pharmacy resellers.

Since 2000, Emssanar Group mission was oriented not only to provide health case services, but also to operate a *social redistribution* of the resources generated by the Group. In order to speed up this process, the management recognised the need to explicitly implement a CSR strategy.

Due to the complexity related to the management of first aid hospitals, pharmacy resellers and a growing number of affiliated spread out in different Regions in the South-West of Colombia, the Emssanar Group met some difficulties in implementing the concept of *social redistribution* in the day-by-day operations. For such a reason, the management decided to start in 2003 Emssanar Foundation, an organisation exclusively aimed to support social-economic development programs designed for Emssanar members. In the same year, a

Balanced Scorecard (BSC) project was also launched to favour the implementation of the Emssanar Group mission and, in particular, of the CSR strategy.

Currently the Emssanar Group can count on about 3.000 members and 1.000.000 affiliates and it operates in 4 different Regions: Nariño, Cauca, Valle del Cauca and Putumayo. Affiliates are people that receive health case services through the hospitals that have an agreement with Emssanar ESS or directly through Emssanar IPS first aid hospitals. In order to receive these services, Emssanar ESS receives health care subsidy by local government. However affiliates are not members of Emssanar Group. Emssanar's members pay an addition fee to joint the Group. As a consequence, they can benefit from other services granted by the Foundation (e.g., training and aid-development programs, etc.).

The paper is organised as follow. Initially, the concept, the justifications and the limits of Corporate Social Responsibility are discussed. Subsequently, the Emssanar Group case-study and the historical context are introduced. The BSC logic applied to the concept of CSR is then explored and the limits of such an approach outlined. A first qualitative cause-and-effect relationships diagram, based on the System Dynamics methodology, is presented with reference to the Emssanar Group case-study. The System Dynamics perspective (Forrester, 1961) allows one to make cause-and-effect relationships explicit concerning the growth and decline processes associated to such resources. The analysis of such causal relationships is not driven by a mechanistic approach, according to which a given set of feedback loops is a priori known or defined. On the contrary, it provides the basis to build a dialectic learning process implying that decision makers' mental models are made explicit and questioned in order to pursue a common shared view of reality emerging from the relevant system (Winch, 1993). Finally, conclusions and further remarks are drown.

2. The concept, the justifications and the limits of Corporate Social Responsibility

In the last two decades, the concept of CSR has been largely debated by governments, academics and profit and non-profit organisations. In spite of the numerous efforts to provide a clear and unique definition of the above concept, there is still some ambiguity (Dahlsrud, 2008; Porter, 2008).

However, by analysing the most adopted definitions of CSR, it is possible to detect at least five recurrent dimensions used to outline such a concept:

- the *stakeholder* dimension;
- the *social* dimension;
- the *economic* dimension;
- the *voluntariness* dimension;
- the *environment* dimension.

Van Marrewijk (2003) tries to synthesise the above dimensions with the following definition: CSR ... refer[s] to company activities – voluntary by definition – demonstrating the inclusion of social and environmental concerns in business operations and in interactions with stakeholders. It has been also remarked that CSR has to do with companies responsibilities for their impact on society in which they operate and with actions that go beyond their legal obligations.

Porter and Kramer (2006) observe four different prevailing justifications for the adoption of a CSR strategy:

- *moral obligation*, refers to the behaviour of a company in doing the "right thing" in achieving a business success or, in other words, honour ethical values, respect people, communities and the environment;
- *sustainability*, mainly refers instead to the ability of a company to reach its own goals without compromising the fundamental resources to sustain the growth of future

generations. Very often companies to meet such a goal recur to adopt control systems oriented to monitor the economic, social and environmental performance;

- *license to operate*, refer to the need for companies that operate in industries highly regulated to cope with social issues and to establish a constructive dialog with related stakeholders (such as, regulators, local citizenry, etc).
- reputation, refer to firms initiatives oriented to diffuse their social consciousness or to temper public criticism about their production and hopefully to improve company image and products' brand.

Even though the above four reasons provide a rational basis to adopt a CSR strategy, very often a company fails to correctly implement it as it is conceived as an optional add-on or as an act of philanthropy (Porter and Kramer, 2006).

A CSR strategy to be effective and sustainable it has instead to be linked with the organisation strategy (Burke and Logsdon, 1996; Shuili *et al*, 2007). Such an approach is very seldom adopted and very often the CSR strategy is disconnected from the company goals. In fact, as Porter and Kramer (2006) remark "the most common corporate response has been neither strategic nor operational but cosmetic: public relations and media campaigns, the enterprises of which are often glossy CSR reports that showcase companies' social and environmental good deeds".

Porter and Kramer (2006) also add that ... [company CSR reports] rarely offer a coherent framework for CSR activities, let alone a strategic one. Instead, they aggregate anecdotes about uncoordinated initiatives to demonstrate a company's social sensitivity. What these reports leave out is often as telling as what they include. Reductions in pollution, waste, carbon emissions, or energy use, for example, may be documented for specific divisions or regions but not for the company as a whole. Philanthropic initiatives are typically described in

terms of dollars or volunteer hours spent but almost never in terms of impact. Forward-looking commitments to reach explicit performance are even rarer".

The above considerations suggest a company in introducing a CSR strategy to adopt a systemic approach. In particular, a firm has to first explore how company results influence the stakeholder, the social, the economic and the environment dimension and, vice versa. Second, to identify opportunities and treats derived from such relationships and, according to such analysis and company priorities, to finally design a corporate strategy that embodies the social responsibility.

3. The Emssanar Group Case-study

3.1 Historical Context

In the 1993, Colombia government through a specific law, named "ley 100", reshaped the health care national system. Previously, poor people could benefit from the services provided by public hospitals free of charge or with a very low cost. However, their access to the health care was very limited, also due to their inability to pay (Plaza, *et al.* 2001).

The new system as reported in figure 1 introduces a demand-based model, in which institutions at the national level transfer financial resources to the local government that are responsible for identifying and purchasing health insurance for the poor. In such a way, the Colombian government introduced a social health care insurance to assure a coverage to poor people. Furthermore, in order to orient the insurance companies to provide to citizens a higher quality health case service and, hence, to stimulate competition on quality – rather than on price – risk adjusted premiums are fixed by the State.

The law previous mentioned also takes into account the contributory system. In this case, the people that have a salary above the minimum fixed by the law are required to pay a tax of 12% of their income. These people can benefit as well from the services provided by the insurance companies operating in the contributory system.

FIGURE 1 ABOUT HERE

3.2 The evolution of the Emssanar Group

As a product of the implementation of this law, Emssanar ESS started in 1994 in the City of

Pasto in the Nariño Region, through a financial support of the Government. Initially it

provided health care insurance services to poor people that received the subsidies from the

local government. This initiative was appreciated in the Region and the organisation recorded

a growing number of members.

Emssanar provided insurance services to two different kind of beneficiaries:

✓ *Affiliates*: poor people who receive a subsidy by the State;

✓ *Members*: affiliates who also own a share in Emssanar ESS

In 1999, due to the tight requirements introduced by the law, Emssanar ESS and other small

health insurers have been forced to merger in one organisation. This decision allowed

Emssanar ESS to be able to provide the level of service required by the new health care

system. This phenomenon also generated an enlargement of the area served by Emssanar

ESS.

This unexpected fast growth of company operations also implied a change in the organisation

and the need to adopt a more formal planning and control system. In 2000, the management

also introduced a CSR strategy mainly oriented to social redistribution through social-

economic development programs designed to Emssanar members.

Between 2001 and 2002, the management recognised the opportunity to provide other

services related to health care. As a consequence, new partner organisations were created:

- Emssanar IPS ltda, first aid hospitals;

7

- Emssanar pharmacy ltda, pharmacy resellers,

Originally these two new organisations were founded as limited companies, and their shares were owned by Emssanar ESS.

Both the first aid hospitals and the pharmacy resellers allowed Emssanar ESS to directly provide health care services to its beneficiaries and also to public and private hospitals.

Although such initiatives contributed to foster Emssanar ESS growth, they prevent the efficacy of the CSR strategy. In fact, the resources generated by the two limited companies could not be used by law to make new investments in Emssanar ESS, but they had to be utilised in the Emssanar IPS and pharmacies activities.

In the year 2003, in order to overcome the above problem that prevented the social redistribution, Emssanar ESS decided to create a Foundation, with the aim to develop specifics social and economic aid-development programs as main part of the CSR strategy implementation.

Initially, Emssanar Foundation started educational courses on the national health care system and aid-development programs for both Emssanar ESS' affiliates and members. The Emssanar foundation recorded a very quickly growth and it was able to attract financial resources from the national government and foreign non-government institutions.

After a period of growth, both in terms of new partners and beneficiaries, the Emssanar management focused its attention to improve productivity and the level of service.

In November 2006, the Emssanar management decided to modify the legal status of the Emssanar first aid hospitals and pharmacies, from limited to mutual. This was mainly due to the fact that the relevant financial resources generated by such companies could not be used – by law – to accomplish the social redistribution. This new organisation form allowed Emssanar Group to reach the following main goals:

- Emssanar IPS' and pharmacies' employees have been more involved in the operations and in the decision making process, as they became part of the organisation;

- They could also access to customised educational programs and social services

provided by the Emssanar Foundation to Emssanar Group's employees;

- Furthermore, employees who decided to become members gained also access to all

aid-programmes provided by the Emssanar Foundation;

- Finally, the resources generated by the Emssanar IPS and pharmacies could also used

to foster the social redistribution.

Figure 2 depicts Emssanar Corporate Organisation. A peculiarity of this organisation chart is

that the General Manager is in charge of Emssanar ESS and of the Group as a whole. In fact,

event though he is consulted by the managers of the other units (Emssanar SF, IPS and

Foundation) on key issues, he has the empowerment to determine the guidelines to make

these decisions.

FIGURE 2 ABOUT HERE

Consequently to the decision of Emssanar ESS to merger with other small insurers, the

number of members reached more than 21.000. Due to the introduction of a more careful

planning, control and audit system, the Emssanar management recognised the need to strongly

review such figures, as most of the people did not pay the annual member's fee. In fact, after

this analysis, in 2006 the effective members reached an historical minimum value (1.194) and

in 2007 such number started again to increase.

TABLE 1 ABOUT HERE

9

Tables 1, 2 and 3 show the growth of the Emssanar Group during the years 2005 to 2007, in

terms of members, employees and affiliates.

TABLES 2 AND 3 ABOUT HERE

In 2007, Emssanar Foundation invested about Eur 350.000,00 in projects oriented to achieve

its mission.

Such resources have been acquired directly from Emssanars's partners (ESS, IPS, SF),

government agencies and other foreign organisations. Also residual resources remaining from

Foundations' projects have been re-invested.

In particular, among these projects it is possible to distinguish:

- investments oriented to support Emssanar's members (educational and aid-

development programs to start or support entrepreneurial businesses);

- investments oriented to support Emssanar employees' parents, other beneficiaries and

poor people in general through:

o educational programmes;

o financial support to new small business start-up;

o financial support to small grocery stores.

Tables 4 and 5 show a detail analysis of Emssanar's projects financed through own resources

or requested by external organisations.

TABLES 4 AND 5 ABOUT HERE

10

In the next paragraph the logic behinds the introduction of the BSC to effectively implement a CSR strategy is presented. The limits of such an approach and the framework suggested are then offered.

4.1 Implementing a CSR strategy through the BSC logic in Emssanar Group

The BSC is a performance measurement system, introduced by Norton and Kaplan (1992) in the early 1990s, centred on the idea of combining monetary and non monetary indicators to outline, implement and measure a corporate strategy. In order to implement a strategy, performance indicators are then explored through four main dimensions: financial, customer, internal processes learning and growth. Such an approach has been widely and successfully introduced in both profit and non-profit organisations.

In order to provide managers a comprehensive view of the strategy of an organisation or a business unit, the BSC translates the strategy in a map that links through cause-and-effect relationships objectives, measures, targets and initiatives.

Following the launch in 2003 of the Emssanar Foundation, to foster the implementation of the Social Redistribution mission, a BSC project was started and involved all Emssanar's partners, from ESS to Foundation.

Among the main reasons that pushed the management to introduce the BSC approach it is possible to point out:

- the introduction of a common strategy in different organisations through the use of explicit 'strategy maps';
- the enhancement of managers' and employees' responsibility to reach organisation objectives, that in turn influence Emssanar mission;
- the use of financial and nonfinancial measures to gauge the effective implementation of the organisation' strategy and, in particular, of the CSR.

As this paper aims to explore how to introduce in a non-profit organisation a CSR strategy, in the following pages the analysis will be focused on the outcomes and limits of the BSC adopted in Emssanar Foundation.

4.2 Outcomes and limits of the CSR strategy implemented in Emssanar Foundation

Figure 3 depicts the Balanced Scorecard framework adopted in Emssanar Foundation and it is mainly based on the four perspectives suggested by Kaplan and Norton (1992).

However, the figure reported below only makes explicit the cause-and-effect relationships among the main variables that influence the financial, customers and internal perspectives. The 'learning and growth' perspective has not been included as the initiatives related to such dimension are managed at a corporate level.

As it is possible to observe organisation investments in the 'learning & growth' perspective represent a prerequisite to improve the 'internal' activities (new products and services development, new projects acquisition, projects execution, member's cooperatives loans management, timely loan collection, social satisfaction and band positioning) that in turn influence 'customer satisfaction' and 'new customers acquisition'. The last two variables constitute indeed the main drivers to achieve 'financial' objectives (Social Redistribution, Improve financial results, cash flow and co-funded social projects).

The introduction of the BSC has strongly contributed to align employees' behaviour to organisation objectives. Such benefits can be detected from the increasing number of successfully projects carried out by Emssanar Foundation in the last three years (see tables 4 and 5).

These positive outcomes have been achieved as each unit clearly knows the targets and the measures through which results are evaluated, and the time horizon considered. As a consequence, employees felled more responsible for the tasks assigned and more involved in

timely accomplishing their activities. Furthermore, the training programs oriented to Emssanar's employees improved their productivity and also favoured the spread out in the organisation of the values and beliefs of the Corporate Social Responsibility (Brickson, 2007).

FIGURE 3 ABOUT HERE

However, although the outcomes of the CSR strategy adopted by Emssanar Group seams to be rewarding, there are some potential limits to growth that could prevent the efficacy and the sustainability of such an approach in the long term.

In particular, the case-study shows that Emssanar's partners (ESS, IPS and SF) constitute the main financers of Emssanar Foundation activities.

Second, the CSR projects carried out by the Foundation contribute slightly and indirectly to Emssanar's partners results.

Third, as the link between Foundation's activities and Emssanar's partners results is very weak and it is not explicitly highlighted, investments done in such projects drain resources that alternatively could be devoted to foster Emssanar's partners growth.

Finally, as a consequence of the above commented indirect link, Emssanar's partners managers could complain even more about the use of the resources currently generated by their strong efforts.

The above remarks could tackle the achievement of Emssanar's goals, as the CSR strategy is disconnected from the organisation strategy. On this concern, it has been suggested (Porter and Kramer, 2006) that an organisation in designing the corporate strategy has to take into account the social responsibility principles. By adopting such an approach, the CSR strategy is not conceived as a *cosmetic* or a casual initiative, but instead it is embodied in the day-by-

day activities. As a consequence of the above approach, an organisation is able to generate additional resources to sustain investments aimed to pursue its mission.

Furthermore, it is worth noting that the approach adopted to introduce a CSR strategy through the BSC also brings in the decision making process the limits of such a perspective.

In particular, different authors have outlined the shortfalls of the BSC.

Linard *et al.* (2002) remarked that the BSC does not effectively translate an organisation strategy into a coherent set of measures and objectives as it is not supported through a rigorous methodology to properly identify metrics and their relationships with the strategy.

Sloper *et al.* (1999) observed that the BSC is a static tool and it does not capture the dynamic and changing relationships among the variables reported in the four different perspectives. On this concern, also Norton and Kaplan (2001) argued that system dynamic simulation models can help managers to better understand the effect of their strategy overtime and evaluate 'strategic alternatives before committing resources for new investments'.

Moreover, Linard and Dvorsky (2001) stressed the 'open-loop logic' behind the BSC. In fact, as shows figure 3, feedback loops are not taken into consideration.

Finally, the BSC does not make explicit feedback loops relationships – that prevent decision makers to understand which loops to weaken or to foster – and it also disregards strategic assets dynamic and external system reactions (e.g., competitors' or public institutions' behaviour).

In order to overcome the above commented limits related to how effectively implement a CSR strategy through the BSC approach, in the next paragraph a first attempt of a CSR strategy map in a feedback perspective is presented with reference to the Emssanar case-study.

1. From an open-loop to a closed-loop model: reshaping a CSR strategy through a feedback perspective

On the basis of the Emssanar Foundation strategy map previously depicted in figure 3, a first attempt of a CSR strategy through a feedback loop perspective is here presented.

Figure 4 portrays main feedback loop relationships underlying Emssanar Foundation CSR strategy. As it is possible to observe, the figure outlines about five reinforcing loops (marked with the R letter) that drives the organisation to achieve the expected results.

FIGURE 4 ABOUT HERE

The Foundation resources received from 'Emssanar's partners' and 'Public and Private Institutions' contribute to implement the Emssanar CSR.

This strategy is achieved through investments oriented to mainly improve the internal perspective and to favour the execution and the supply of services to members (Becker-Olsen and Hill, 2005), affiliates and poor people. Projects execution generates in turn resources to be invested in further projects.

This first reinforcing loop can also fuel other growing mechanisms. In fact, the improved company image, due to the socio-economic growth and the increase in customer satisfaction, can contribute to raise the resources received from Public and Private institutions (see R2, R3, R4 in figure 4). Furthermore, the more resources the Foundation has available to co-fund projects, the more Public and Private institutions investments will be attracted (see R5 in figure 4). This can represent another engine to Foundation growth.

The above analysis raises the following questions:

- does the CSR strategy above commented allow Emssanar Group to achieve the Social Redistribution through the activities done by the Foundation?
- Are there any potential limits?

- *Are there any uncovered phenomena?*

As demonstrated by Porter and Kramer (2006), in order to successfully implement a sustainable CSR philosophy in an organisation, this end has to be embodied in its strategy. In fact, on the contrary, as it is possible to observe in figure 5, it could happen that a lack of resources provided by Emssanar's partners prevent the development of any Foundation activities. Furthermore, such a shortfall could also hold off potential external founders.

In order to overcome the above limits, figure 6 makes explicit the link between the Foundation 'Investments in CSR business operations' and the potential Emssanar's partners outcomes. In order words, the feedback loops structure proposed tries to explore how such investments can contribute to increase two fundamental strategic resources (Emssnar's members and affiliates) to Emssanar's partners growth. Partners development in turn is likely to provide resources to fuel Foundations projects (see in particular, R6 and R7 in figure 5).

FIGURE 5 ABOUT HERE

However, it is worth remarking that in the medium-long term such a CSR strategy could be tackled by Emssanar's competitors reactions. In fact, as the number of Emssnar's members and affiliates increase, Emssanar's competitors could implement policies oriented to counterbalance such phenomenon. This reaction can also affect the number of Public and Private institutions (see balancing loops shown with the balance symbol reported in figure 5).

7. Concluding remarks and further researches

The purpose of this paper has been twofold. First, to analyse and clarify the concept of Corporate Social Responsibility (CSR). Second, to understand how a CSR strategy can be effectively introduced in a non-profit organisation. To this aim, an analysis of the feedback relationships underlying a CSR strategy in a Colombian non-profit organisation has been provided.

Emssanar approach to CSR is based on the assumption that Emssanar' Foudation has to take care of the social redistribution. To this aim, Emssanar's partners have only to provide the necessary resources to fuel Foundation activities.

However, the literature clearly remarked that a CSR strategy to be successful in the long term has to be part of the main company strategy (Porter and Kramer, 2006). For this reason, Emssanar approach can be supported only in the short term. In fact, in the long term Emssanar's partners could not be stimulated to feed Foundation activities, if they do not perceive direct or indirect benefits on the main strategic assets underlying their business growth processes (for instance, new associates or affiliates).

This paper tries to demonstrate how a CSR strategy could fail in the long term if an organisation adopts an open-loop logic. On the contrary, by making explicit the feedback loops structure underlying a CSR strategy, it is possible to better understand the mechanisms that foster an organisation sustainable growth.

Further empirical researches are also necessary to experiment the contribution of the feedback perspective in exploring how to implement a CSR strategy, in both profit and non-profit organisations. The development of System Dynamics models could also contribute to better support decision-makers in deeply understanding the dynamics of the CSR strategy implications in the short and long term organisation performance.

References

Becker-Olsen, Karen, and Hill, Ronald, 2005, *The Impact of Perceived Corporate Social Responsibility On Consumer Behavior*. Working Paper Series. Paper 27. Center for Responsible Business, University of California, Berkeley, California

Kothavala, Soonawalla and Alnoor, Bhimani, 2005, "From conformance to performance: the corporate responsibilities continuum". *Journal of accounting and public policy*, **24**: 165-174.

Brickson, Shelley. 2007. "Organizational Identity Orientation: The genesis of the role of the firma and distinct forms of social value". *Academy of Management Review*, **32:** 864–888.

Burke, Lee and Logsdon, Jeanne M. 1996, "How Corporate Social Responsibility Pays Off". *Long Range Planning*, **29**: 495-502.

Dahlsrud, Alexander. 2008. "How Corporate Social Responsibility is Defined: an Analysis of 37 Definitions". *Corporate Social Responsibility and Environment Management*, **15**: 1-13.

Forrester, Jay Wright, 1961, Industrial Dynamics. Portland, Oregon: Productivity Press.

Kaplan, Robert and Norton, David. 1992. "The Balanced Scorecard: Measures That Drive Performance". *Harvard Business Review*: 71-79.

Kaplan, Robert and Norton, David. 2001. *The Strategy Focused Organization*. Boston, MA: Harvard Business School Press.

Philip, Kotler and Nancy, Lee. 2005. Corporate Social Responsibility: Doing the Most Good for Your Company and Your Cause. Hoboken, NJ: Wiley.

Linard, Keith and Dvorsky, Lubomir. 2001. *People – Not Human Resources: The System Dynamics of Human Capital Accounting.* Presented at the Annual meeting of the Operations Research Society, University of Bath, England, September

Linard, Keith, Fleming, Cherylne. and Dvorsky Lubomir. 2002. *System Dynamics as the Link between Corporate Vision and Key Performance Indicators*. Presented at the Annual meeting of the System Dynamics Society, July, Palermo, Italy.

Marrewijk, Marcel van. 2003. "Concepts and definitions of CSR and corporate sustainability: between agency and communion". *Journal of Business Ethics*. **44**: 95–105.

Plaza, Beatriz, Barona, Ana Beatriz, and Hearst, Norman. 2001. "Managed competition for the poor or poorly managed competition? Lesson from the Colombian health reform experience". *Health Policy and Planning*, **16**: 44-51.

Porter, Michael E., Kramer, Mark K. 2006. "Strategy & Society. The Link Between Competitive Advantage and Corporate Social Responsibility". *Harvard Business Review*. December: 1-14.

Porter, Terry B. 2008. "Managerial Applications of Corporate Social Responsibility and Systems Thinking for Achieving Sustainability Outcomes". *Systems Research and Behavioral Science*, **25**: 397-411.

Schwartz, Peter and Gibb, Blair. 1999. When Good Companies Do Bad Things: Responsibility and Risk in an Age of Globalization, Canada, John Wiley and Sons, Inc.,

Shuili, Du, Bhattacharya, CB. and Sankar, Sen. 2007. "Reaping relational rewards from corporate social responsibility: The role of competitive positioning", *International Journal of Research in Marketing*. **24**:224-241.

Sloper, Phil, Linard, Keith, and Paterson, David. 1999. *Towards a Dynamic Feedback Framework for Public Sector Performance Management*. Presented at the Annual meeting of the System Dynamics Society, July, Wellington, New Zealand.

Winch, W. Graham, 1993. "Consensus building in the planning process: benefits from a "hard" modelling approach". *System Dynamics Review*, **9**: 287 - 300

LIST OF FIGURES AND TABLES

Figure 1 – The new subsidized health care system in Colombia after law 100, 1993 (Source: Plaza, *et al.* 2001)

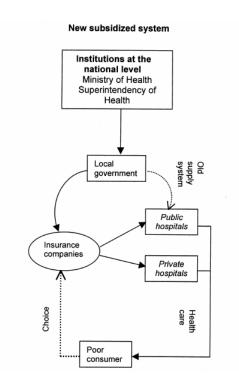


Figure 2 - The Emssanar Group Organization (Source: company data)

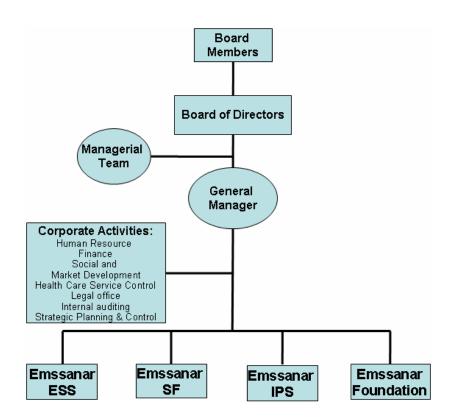
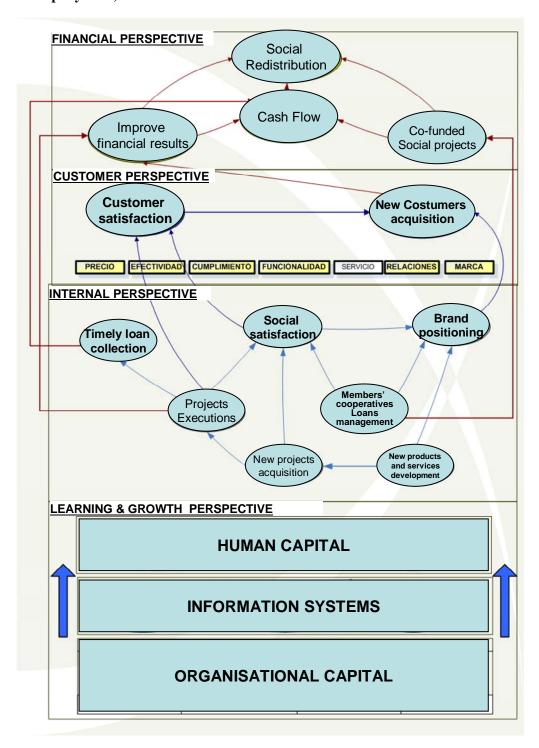


Figure 3 - Emssanar Foundation BSC strategy map (Source: company data)



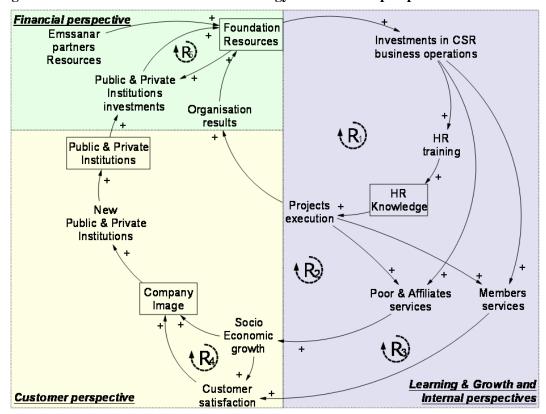


Figure 4 - Emssanar Foundation CSR strategy in a feedback perspective

A reinforcing loop (R) represents a virtuous or vicious circle related to a growth or decline process of the relevant system. Instead, a balancing loop (marked with the balance symbol) can be related to the case of a lack of strategic asset (e.g., human or financial resources) and it acts as a limit to growth. A balancing loop can be also related to the possibility that decision-makers adopt a policy aimed to fill a gap between a desired and actual value of a give stock variable.

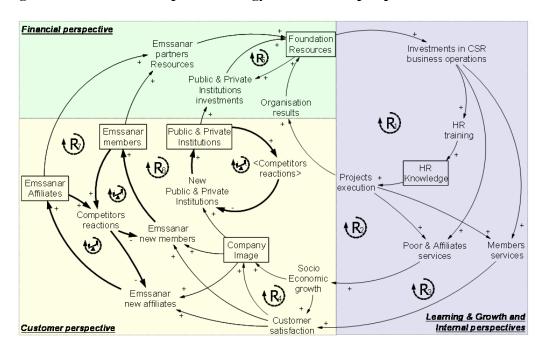


Figure 5 - Emssanar Group CSR strategy in a feedback perspective

Table 1 - Emssanar Group's members from 2005 to 2007 (Source: company data)

Organisation	Annual Members		
Organisation	2005	2006	2007
Emssanar ESS	21.000	1.194	1.650
Emssanar SF	0	0	163
Emssanar IPS	0	0	75

Table 2 - Number of employees from 2005 - 2007

(Source: company data)

Organisation	Number of employees		
Organisation	2005	2006	2007
Emssanar ESS	353	356	384
Emssanar SF	49	52	68
Emssanar IPS	118	102	115
Emssanar Foundation	52	58	67
Total employees	572	568	634

Table 3 - Emssanar ESS affiliates from 2005 - 2007

(Source: company data)

Organisation	Affiliates		
Organisation	2005	2006	2007
Emssanar ESS' Affiliates	905.457	995.253	1.072.715
Emssanar ESS's Competitors Affiliates			
in the Regions	3.491.603	20.322.000 ¹	21.080.086
Market share	26%	3.4% ²	5%

Table 4: Emssanar Foundation's projects financed through own resources (Source: company data)

Year	Projects	Beneficiaries	
	Start-up of a Research and Education Center CETEM (Centro Estudios Tecnicos Emssanar)	Emssanar's stakeholders	
	2. Start-up of a project to financially support small grocery stores	Emssanar's members and poor people	
2005	3. Reorganisation and development of a small farm in crisis – received trough a donation – to provide products to small grocery stores	Emssanar's members and poor people	
	4. Support to the start-up of new businesses (Credit Communitarian Development Initiative).	Emssanar's members	
2006	Further development of the Research and Education Center CETEM	Emssanar's stakeholders	
	Further development of the project to financially support small grocery stores	Emssanar's members and poor people	

¹ In 2006, the national government redefined the areas of potential beneficiaries to be served in the Regions by Emssanar ESS.

_

² See previous note.

	Development of the small farm to provide products to small grocery stores	Emssanar's members and poor people
	4. Increase of the funds to support the start-up of new businesses (Credit Communitarian Development Initiative.	Emssanar members
2007	Reorganisation of Foundation internal processes to better support the implementation of current projects	Foundation's employees
	Further development of the Research and Education Center CETEM	Emssanar's stakeholders
	3. Further development of the project to financially support small grocery stores	Emssanar's members and poor people
	4. Development of the small farm to provide products to small grocery stores	Emssanar's members and poor people
	5. Increase of the funds to support the start-up of new businesses (Credit Communitarian Development Initiative.	Emssanar members

Table 5: Emssanar Foundation's projects executed with external funds (Source: company data)

Year		Projects	Sponsors	Beneficiaries
2005	1.	Training program to Emssanar IPS's employees to better communicate the subsidiary system to beneficiaries	Emssanar IPS	Emssanar IPS' employees
	2.	Training program to Emssanar ESS's employees aimed to diffuse the CSR culture	Emssanar ESS	Emssanar ESS' employees
	3.	Training program to Emssanar Group's employees aimed to improve the level of the services provided	Emssanar ESS	Emssanar Group' employees
	4.	Training program to Emssanar ESS's employees on risk assessment techniques to health care	Emssanar ESS	Emssanar ESS' employees
2006	2.	Training program oriented to 14 local market sellers to create a facilitator profile to negotiate local market sellers' needs with Pasto municipality officials.	Municipality of Pasto Direction general for Health care	Poor people
	3.	Training program oriented to make aware health care beneficiaries' associations about the social control on the level of service of the health care system	Municipality of Pasto Direction general for Health care	Affiliates
	4.	Training program to Emssanar Group's employees on cooperative development	FODESSA (A Emssanar's Employeed Association)	Emssanar Group' employees
	5.	Training program on how to foster cooperative development to about 200 people leaving in four different municipalities in the Putumayo region	Cooperation Government Agencies (DAPRE; FIP; SECAB)	Poor people
	6.	Training program to Emssanar Group's employees on the national health care system	SENA (National Agency to foster knowledge)	Emssanar Group' employees
2007	1.	Training programs to diffuse the culture of legality and entrepreneurship to land owner' families operating in illegal activities	Cooperation Government Agencies (SECAB; Accion Social; FONAPAZ)	Poor people
	2.	Training programs to land owner' families operating through cooperatives to better use and management their land to foster business growth	Cooperation Government Agency (SECAB)	Poor people
	3.	Training program to Emssanar Group's employees aimed to improve the level of the services provided	EMSSANAR ESS	Emssanar Group' employees