MEASURING CORPORATE SOCIAL PERFORMANCE

José Salazar and Bryan Husted Tecnológico de Monterrey and York University

Ave. Eugenio Garza Sada 2501 Sur Monterrey, Nuevo León, Mexico, 64849 Tel.: 52-8-358-2000, ext. 4305 Fax: 52-8-358-2000, ext. 4351 E-mail: jsalazar@itesm.mx

4700 Keele Street Toronto, ON, Canada, M3J 1P3 Tel.: 5281-8625-6146 Fax: 5281-8625-6098

E-mail: bhusted@schulich.yorku.ca

This research was made possible in part by funding from the Consejo Nacional de Ciencia y Tecnología.

<u>Abstract</u>: This article argues that one of the principal difficulties in measuring CSR performance lies with the unit of analysis and that its social, environmental and economic impacts need to be examined at a project level. Using a quasi-experimental research approach the paper shows an evaluation of the *Patrimonio Hoy (PH)* a CSR program of CEMEX, one of the largest cement manufacturers in the world.

Keywords: corporate social responsibility, social measurement and evaluation.

INTRODUCTION

One of the greatest challenges for the management of social initiatives by private firms is the measurement of the firm's social performance. More accurate measurement would help firms know where to make investments in order to obtain the highest possible levels of social welfare (Meehan, Kilmer, and O'Flanagan, 2004), yet for many firms and other donors, this information is not important (Cunningham and Ricks, 2004).

Many of the measures are actually quite coarse. There has been a search for indicators of corporate social performance (CSP) that would be comparable to profitability measures of financial performance such as return on investment. Clarkson (1995) recognized the coarse nature of the social performance indicators and made a significant step forward by advocating specific measures for performance with respect to different stakeholder groups.

We agree entirely with Clarkson's focus on evaluation at a more micro-level, but we would argue that his selection of the stakeholder as the appropriate unit of analysis is not sufficient in

order to determine the actual social performance of the firm. Rather, we need to treat CSR just as firms treat research and development or advertising (Barnett, 2007). To ask whether advertising or R&D is positively related to firm financial performance is somewhat naive. The important question is whether a specific R&D project or advertising campaign achieved specific objectives, thereby contributing to firm financial performance. Thus, we build on prior authors like Burke and Logsdon, (1996) by arguing that the relevant unit of analysis is the CSR project.

The idea of this paper coincides with that of Meehan, Kilmer, and O'Flanagan (2004). CSR investments require careful measurement and evaluation because their optimal allocation would not only guarantee a better financial result for the firm, but would also contribute more to the social impact or product of the firm (Husted and Salazar, 2006).

This study deals with the measurement and evaluation of the effects of CSR investments, some of the problems in its current practice, and the necessity of carrying it out in a more systematic way. We examine some of the approaches to evaluation available today and their possible application to CSR. In order to illustrate their application to a specific CSR project, we evaluate the social impacts of *Patrimonio Hoy (PH)*, a CSR project of the Mexican multinational cement manufacturer, CEMEX. This case will help to illustrate some of the challenges of measuring the social impacts of CSR initiatives. We then conclude with some lessons to be learned for the effective measurement and evaluation of social performance.

LITERATURE REVIEW

Perspectives from the field of management

The management and CSR literatures have begun to deal with the question of measurement and evaluation. Much of this discussion has revolved around the concept of corporate social performance (CSP). Some authors have offered broad frameworks for indicators that could be used in this task. Wood (1991) conceives of CSR as an obligation of the firm to work for social betterment and divides the results of CSR investment into social impacts, programs, and policies. Clarkson (1995) starts from the stakeholder framework in order to offer an ample list of indicators analyze and evaluate CSP. These indicators principally deal with stakeholder relationships. This framework provides a solid base upon which to develop a descriptive study, but it is not helpful in providing an explanation of the effects of the programs. It would be very difficult to conclude any causal relationships based on these descriptive measures. Something similar occurs with Queiroz (2007) who, based on a study of twelve Brazilian firms, develops a list of 50 factors divided into seven categories, where there are both quantitative and qualitative variables, referring to both the firm and society. Nevertheless, a gap remains with respect to the analysis of this information in order to be able to develop conclusions regarding the isolated effects of the programs.

From the foregoing, we see that there are two fundamental problems in measuring social value. The first is the lack of methodologies that may permit a holistic evaluation of the functioning of the programs. A second problem, about which there exists a great debate, is specifying the objective: what do the quality of life, prosperity, happiness, or satisfaction of an individual or group mean (Nussbaum and Sen, 1996)? These concepts represent the condition that corporate social initiatives seek to improve.

Perspectives from the project management literature

A first aspect to consider in the determination of the effects of a CSR program is the conception of the objective of the program or what we call here the "social product." Although the social product could be negative, under normal conditions it involves the transfer of goods from the firm to its stakeholders or in the reduction of "bads".

Theory about the social product sought from CSR investment is still incipient and, its definition is unclear. In the field of cost-benefit analysis, for example, current efforts are directed toward including the social dimension of project evaluation in a holistic manner, including the tangible and intangible, the direct and indirect, the individual and collective impacts, as well as the distributive effects that include winners and losers (losers almost always exist in the implementation of any program). Under this approach, the social product is a "Pareto improvement", which exists when the program produces greater benefits than costs and compensates those who lose in the implementation. The benefits are measured in terms of the "utility" that the individual obtains. This term is somewhat subjective, but economists have subjected it to measurement through the tools of market analysis where the willingness to buy and sell expressed through a price system reveals utility.

The search for what we have called "social product", has also led to the conception of terms like the quality of life, life expectancy, and human development. The first, as noted by Becker, Philipson, and Soares (2005) has been widely operationalized as GNP per capita; the second is generally measured on the basis of the expected years of life from birth, and is also used by these authors to see more clearly the differences in the levels of life around the world. Finally, based on the thought of Amartya Sen (1999), human development is subject to measurement through indicators associated with welfare, such as income, health, and education because freedom permits the development of the individual's capacities that enable a person to leave poverty.

Quality of life, life expectancy, and human development capture the level of human welfare using key variables that significantly influence individual and collective welfare. The use of this kind of criteria within the evaluation of CSR programs is not a common practice.

Evaluation is a word that usually relates to measurement and estimation according to Aguilar and Ander-Egg (1992: 3), "[E]valuation is a process oriented to making a value judgment. It deals with a judgment in which one values or estimates 'some thing' (object, situation, or process), according to particular criteria of value with which one makes the judgment." They distinguish measurement and evaluation by explaining that measurement involves the quantification of something, while evaluation determines the value of this same thing. For the World Bank (2004: 248), valuation is:

The systematic and objective evaluation of a project, program, or policy, whether in process or finished, with respect to its design, implementation and/or results. Its purpose is to determine the importance and fulfillment of the objectives, the efficiency of the development, efficacy, impact and/or sustainability.

Approaches to evaluation of the effects and impacts of social programs

Although the evaluation of a program should include each of its parts, such as its design, implementation, and results, it is this last stage which attracts the greatest interest. In the field of CSR, the implementation of programs usually creates effects and/or impacts on diverse agents such as stockholders, employees, suppliers, customers, third parties, and the community as a whole. Table 1 summarizes the diverse groups that could be affected by CSR programs and some of the available approaches to evaluation that are most relevant to each case.

Table 1. Approach to evaluation related to the target group of a CSR project

Target group	Approach to evaluation	
Employees, stockholders, suppliers, customers	Engineering economics	
Third parties	Cost-benefit analysis	
(Individuals and/or groups)	Social program evaluation	
Local and global communities (groups)	Social impact assessment	
	Impact evaluation	

Both engineering economics, dedicated largely to the choice among alternatives of business investment, as well as cost-benefit analysis tend to be highly quantitative approaches and focus primarily on economic analysis that compares costs and benefits. They enjoy a long tradition and consist of a number of tools which identify the most profitable alternatives to achieve an end. Their weakness lies in their inability to include qualitative aspects and subjective assessments that are usually present in social programs as well as their distributive effects and impacts on sustainability, which although they are often quantifiable, are usually not taken into account (Jenkins, 2002). Other non-economic determinants of individual welfare, also produced by social programs, such as the changes in life perceptions, the form in which one person relates to others, the effects upon the natural environment, or changes in community values, can hardly be considered in evaluating programs with cost-benefit analysis, since not every effect occurs in the market and cannot always be expressed in monetary units. Also, predominantly quantitative, the field of impact evaluation (IE) has a more recent history, but uses experimental and quasi-experimental designs to evaluate results.

Social program evaluation and more recently social impact assessment SIA have been developed as ways of evaluating that combine both quantitative and qualitative aspects. Becker (2003, xi) defines SIA as: "The process of identifying the future consequences of a current action or proposal, which is related to individuals, organizations, and macro-social systems." Their tools are less formal and more *ad hoc* in specific cases than in the two prior approaches.

Although in all of the approaches various dimensions are incorporated in the evaluation of programs and projects, in practice the focus of each approach on each dimension is distinct. In table 2, we compare the approaches according to the emphasis placed on each dimension and the tools and techniques most frequently used. The table only provides a general idea.

Table 2. Comparison of different approaches to evaluation

Dimension Engineering Cost- Social Social impact Impact						
Dillicusion	Economics	benefit		assessment	evaluation	
	Leonomics		program evaluation	assessinent	evaluation	
D C' 1 '1'	TT' 1	analysis		N	т	
Profitability	High	High	Medium	Medium	Low	
Direct, tangible	Low	High	Medium	Medium	High	
social effects						
Direct, intangible	Low	Low	High	Medium	Low	
social effects						
Tangible	Low	Medium	Medium	High	Medium	
externalities						
Intangible	Low	Medium	High	Médium	Low	
externalities						
Evaluation of	???	Low	High	???	???	
design and						
process						
Economic	High	Low	Low	Medium	Low	
Sustainability						
Redistributive	Low	Medium	Low	Low	Medium	
effects on		(recent)				
national wealth						
Tools	Financial	Financial	Cost-	Prospective	Statistical	
	feasibility,	feasibility,	efficiency	studies,	comparisons,	
	net present	Net	analysis,	social	Pareto	
	value,	present	descriptive	network	equilibria,	
	internal rate	value of	and	analysis,	discontinuous	
	of return	social	correlational	expert panels,	regression,	
		benefits,	statistical	interviews,	random	
		shadow or	analysis,	statistical	promotion	
		social	interviews,	analysis.	and	
		prices.	social	J 12 - 22 -	instrumental	
		T	network		variables	
			analysis.			
[Į	<u> </u>	anary 515.	<u> </u>	1	

Most research has been undertaken at the firm level of analysis. Typically studies seek firm-level indicators of social performance. Primary data sources have usually included cross-sectional surveys at the firm level (Aupperle, Carroll, & Hatfield, 1985; Deniz-Deniz & Saa, 2003); surveys of employees among a smaller group of companies (Purcell, 1974), or analysis of company reports (Brammer & Millington, 2004). Other scholars have used secondary data sources, especially the KLD ratings of companies as indicators of CSP (Graves & Waddock, 1994; McWilliams & Siegel, 2000; Orlitzky, Schmidt & Rynes, 2003).

Nevertheless, we argue that the measurement and evaluation of CSP must occur at the project level. Measures at the firm level reflect the performance of a portfolio of social projects and it becomes impossible to separate out the results and impacts of each project or program. It is somewhat akin to measuring a firm's marketing success by measuring the size of its advertising

budget instead of measuring the impact of specific advertising campaigns for specific products or services.

CASE STUDY

At the end of 2007, the CSR program, *Patrimonio Hoy* had benefited 150,000 families in 21 federal entities of Mexico. *PH* offers microfinance for do-it-yourself construction of housing in low-income areas. *PH* has received considerable attention in the management and CSR literatures (Prahalad, 2006; Hart and Sharma, 2004) where it is used as an example of a successful base-of-the-pyramid program both because of its profitability for CEMEX as well as the creation of wealth (housing) for its beneficiaries. The social impacts caused by the program have rarely been studied other than the increase in the size of housing measured in square feet of construction.

We decided to study the social impacts of *PH* in the municipality of Zinacantepec in the State of Mexico because the program had been in operation for over four years and had a relatively large number of beneficiaries, whose income level and location coincided closely with the groups for which the program was targeted since its inception.

After some discussion with *PH*'s managers, we determined that its objectives are as follows: 1) to reduce the time and cost of self-help construction in low-income urban areas; 2) to incorporate technical guidance in the development of projects to expand or remodel living quarters; 3) to increase the welfare of the participating families in terms of family savings, size of the dwelling, health, community ties, and development of a credit history that would facilitate obtaining new credits.

METHOD

Though the firm undertook a prior study involving participant observation in order to understand better the target groups, their customs, problems, and spending habits, this study was not replicated in each site where the program was introduced and neither did it provide a database that would permit comparing the initial state for each of the conditions that program sought to improve. In the evaluation, this lack of information prevented a before-and-after comparison, since the initial state for each variable of interest was unknown. It should be noted that some of the values of the variables of interest could be obtained from official information available from the municipality. Nevertheless, this source did not contain all of these variables and the date when the information was collected did not coincide precisely with the beginning of the *PH* program at a given site.

Given the lack of historical information regarding the variables of interest (a very common situation for the majority of social programs), which would help to establish the value of the variables at the beginning or at any other intermediate point of time between the beginning and the present, we decided to utilize Campbell and Stanley's (1963) static group comparison design, which is a pre-experimental, cross-sectional design that compares the current state of a group of beneficiaries to a control group of non-beneficiaries of the program. Information would be obtained through the application of a cross-sectional questionnaire that included the population of beneficiaries who had already passed through all of the stages of the program and a sample drawn from the rest of the population. Since the existence of the program was widely publicized,

there was no risk of a selection bias in which the beneficiary group of the program participated in *PH* only for having received more information than the rest of the target population.

According to Campbell and Stanley (1963), this method is safe from most of the problems of internal validity, but is weak with respect to the threats of selection and mortality and uncertain with respect to maturation. Selection deals with the possibility that the experimental and control groups are not equivalent. In the evaluation of *PH*, the treatment group included the entire population of beneficiaries. The control group was selected systematically among the neighbors closest geographically to the beneficiaries with an average of two or more neighbors per beneficiary. Thus, there does exist a possibility of selection bias, but careful use of neighbors should reduce the possible non-equivalence of the two groups. With respect to mortality, referring to the differential loss of subjects, in this case it would be insignificant given that the treatment group was the entire population of *PH* participants and managers indicated that there was almost no problem with late payments suggesting very little attrition in the program. For the control group there was no opportunity to drop out given that data was collected only at one point in time. Finally, maturation should not be a problem given that any psychological or biological processes that vary with time would have affected both groups similarly.

In contrast with what would be a complete evaluation of the program, there was no prior study of the inauguration of the program, its design, implementation, and follow-up, the structure, organizational culture, nor of the performance of personnel. It is for that reason that we talk about the social objectives of the program and not those that would have more to do with the general development of the target site or with the profitability and image of the firm. As we mentioned already, other authors have already described the positive effects that this program provides for the firm.

Statistical tools

In the comparison, we used correlations, tests of differences between two means and proportions, Chi-square tests, and regression analysis. In order to compare the variables of interest for the experimental and control groups, we use the t-test for differences of two means and the z-test for the difference of proportions. Since the present study does not have comparative information of the groups from the beginning of the program, we make comparisons for the variables of interest with what Bazant (2003) observed in his study of do-it-yourself housing construction in low-income zones in Mexico City and the State of Mexico.

In order to control for different factors that could have concomitant effects with those of *PH* on the variables of interest *I*, we considered the use of regression models of the following general form: $I_t = \alpha + \beta_1 S_t + \beta_2 Y_t + \beta_3 E_t + \beta_4 G_t + \beta_5 N_t + \epsilon$

Where: I_t is the variable of interest (social objectives of PH), S is a dummy variable that indicates participation (1) or not (0) in PH, Y is the household income, E is the level of education of head of household, G is gender, N is the number of occupants in the dwelling, α is the constant, β_i are the coefficients indicating the relationship between each of the independent variables and the dependent variable, i=1,2,3,4,5 and ϵ is the error term of the model.

Sample

The treatment group consists of *PH* beneficiaries. The size of the group was 62, all of whom initiated and completed the program between January 2002 and September 2003. For the control group, we took a sample of 175 elements, which mirrored the same proportion of participation in *PH* in each of the geostatistical areas (AGEB) that comprised the municipality of Zinacantepec.

Variables

The variables were measured as summarized in Table 3.

Table 3. Variables and their measurement

Variables	Measurement	Units	
PH beneficiary	Member of household participates in <i>PH</i>	participates in PH Yes = 1, No=0	
Household income	Average monthly income	Pesos	
Household savings	Savings	Pesos and % of total income	
Household size	Number of people living in the same dwelling	Number of people	
Education level of the head of household	Education level of the head of household	1: none, 2: primary, 3: middle school, 4: preparatory, 5: technical, 6: professional	
Size of dwelling	Square meters of construction Number of rooms	Square meters of construction Number of rooms	
Community ties	Participation in community groups	Participates = 1, Does not participate = 2	
Cost	Cost of construction project (materials and labor)	Pesos	
Health	Average annual expenditure in medicines per occupant Average number of visits per occupant per year.	Pesos Number of visits	
Use of credit	Currently has some sort of credit	Has credit = 1; has no credit = 0.	
Expectations	General situation expected by the respondent	Scale of 1 to 10, from less to more.	
Level of happiness	Happiness as understood by the respondent	Scale of 1 to 10, from less to more.	

RESULTS

The correlation analysis provides evidence that independent of the level of income, savings, education or number of people in the dwelling, participation in PH is positively associated with a larger dwelling and one with a greater number of rooms. In turn, the percentage of savings of the household depends upon the level of household income, independent of PH participation. Also participation in PH is not associated with greater levels of savings. Independent of the household income and level of education of the head of household, the PH beneficiaries used

more credit than non-participants. Social participation is not associated with *PH* participation and the self-defined level of happiness for the inhabitants of Zinacantepec is not associated with either *PH* participation, income level, or the educational level of the household head, but is positively related to the size of the household dwelling and negatively related to the number of visits made to the doctor each year.

Next we compare the means and proportions of the variables of interest for both groups in the study with the purpose of verifying if some of these differences are statistically significant. According to the results, for almost all of the variables, except for spending on medicine, the differences between the arithmetic means of the variables for the experimental group and the control group are congruent with our expectations and in general show more favorable values for PH beneficiaries, although only some of these differences are statistically significant. Although the level of income and the number of inhabitants per household is very similar for the two groups, the dwelling for PH beneficiaries was larger both in terms of area as well as the number of rooms. Nevertheless, the degree of overcrowding as measured by the ratio of the number of persons to the number of rooms was similar for both groups. In addition, the material used in the construction of the dwellings currently is also similar for both groups. It is also striking that the percentage of people who currently have a credit is greater for PH beneficiaries. In addition, this group does not appear to be saving a greater proportion of its income than non-beneficiaries, nor do they visit the physician less frequently, nor are they less integrated in community groups. In general both groups show a similar level of happiness (>8). Although there do exist differences in the means, these differences are not statistically significant.

Given similar levels of savings, number of occupants, construction material (roof, walls, and floor), doctor visits and spending on medicine, PH beneficiaries live in houses that are 15 m² bigger than and have one more room than those of non-PH beneficiaries. In terms of the dynamics of growth typical for the self-help construction studied by Bazant (2003), this difference would mean that the PH beneficiaries have a dwelling area that they would not have achieved in four more years were it not for their participation in PH.

This analysis may hide the possible benefits of the PH program. The current situation of equality in many of the variables of interest may be the result of the change created by PH. It may be that PH permitted its beneficiaries to achieve levels of housing similar to those of their neighbors. Ordinarily, this possibility should be examined through the analysis of double differences (changes in the difference between treatment and control groups before and after PH participation). However, as we commented earlier in the methodology section, this analysis was not feasible, because we do not have information regarding the base-line socioeconomic characteristics in order to make a comparison between the two groups under study. Although this situation is quite typical of CSR programs generally, we can take advantage of some data regarding the characteristics of housing in Zinacantepec found in the XII Census of Population and Housing as a possible point of reference. According to the XII Census, the percentage of roofs, walls, and floors made of resistant material in the dwellings of the PH associates were very similar to those that were found in general for the municipality of Zinacantepec in 2000 before entering the program. In the census, 68% of the dwellings had roofs, 68% had walls, and 76% had floors of resistant materials. The data found in the field work for the treatment and control groups suggests that the advance in the provision of resistant, permanent materials in the

dwellings for both groups was very similar and that the PH group did not advance more in this period. Something slightly different that occured was in the average number of rooms, which according to the census was 3.7 per dwelling in Zinacantepec in 2000, while among the associates of PH in 2002/2003 it was 3.1. In 2006, the number of rooms was 6.2 for PH participants and 5.1 for non-participants. This result confirms a similar result found by comparing the average number of rooms per group. So the number of rooms was a variable that grew more rapidly among the PH beneficiaries than among the rest of the population of the Zinacantepec.

With respect to the size of the dwelling and time saved in its growth, if we again compare what was achieved by the *PH* beneficiaries to the average growth in the size of housing in the group studied by Bazant (2003) in Mexico State, we see that the average growth observed among *PH* beneficiaries was 66.7 m2. Based on Bazant's (2003) work, this increase would normally take a low-income family a period of between 16.5 and 19.8 years, while with *PH* participants took only 4.5 years.

In the regression analysis, we used ordinary least squares to explain the behavior of the variables that represent the social objectives of the program. It is worth mentioning that although intially we thought to also control for the gender of the head of household, this was not possible given that only in one case was a woman identified as the head of household, which would not allow for sufficient observations to determine any impact.

We did not find any models that were statistically significant that explained the variables of savings, credit, community ties, and happiness. In all of these cases, we included the variable of *PH* participation as an independent variable. Additionally, in each of the corresponding models for each of the variables of interest, we included other explanatory variables. In the case of health, we included income level, size of dwelling, and number of occupants per dwelling, but none of these explained the variation in the dependent variable. In our analysis of savings, we considered income, health spending, expectations, and credit. Income was always significant and *PH* participation was significant in some cases, but the rest of the variables were not significant. In general, the models were not statistically significant. In the case of credit access, *PH* was significant, but the rest, including income and health were not. In this case, the models were also not significant. In the case of community ties, we could not find any significant explanatory variables. In reality, this variable is practically a constant. Community participation, as mentioned earlier, is almost nonexistent, for both the experimental group and the control group. Finally, in the happiness model, the only significant variable was the size of the dwelling, but the models as a whole were not statistically significant.

Interesting results were found upon modeling the size of the dwelling measured both as squared meters of construction and as the number of rooms. In both cases, we estimated statistically significant models. In the first case, we used the technique of ordinary least squares, but using White's test we detected heteroskedasticity. To eliminate the problem we used weighted least squares. The final equations that we estimated were:

Size as squared meters of construction:

$$M^2 = 13.7144 \text{ PH} + 0.3240 \text{TT} + 7.7918 \text{NP} + \varepsilon$$

```
t-test: P-values (0.0610) (0.000) (0.000)
VIF (1.012) (1.001) (1.013)
Adjusted R^2 = 0.1362, DW = 1.7083
```

Size as number of rooms:

```
NC = 4.3044 + 1.0211 \ PH + 0.1370NP + \epsilon t-test: P-values (0.000) (0.000) (0.023) 
 VIF (1.010) (1.012) 
 Adjusted R<sup>2</sup> = 0.1918, DW = 1.7272
```

Where: M^2 is the area of dwelling construction in squared meters, NC is the number of rooms in the dwelling (including the kitchen, living room, and bedrooms), PH is the *PH* participation measured as a binary variable where 1 = participate or 0 = does not participate in *PH*, TT is the size in m^2 of land where the dwelling is built, and NP in the number of occupants of the dwelling.

In general, both equations are statistically significant (F-test for model) and the coefficients of the dependent variables are also significant (t-test) and show no problems of multicollinearity. However the impact of *PH* participation on the area of the dwelling construction was only marginally significant. The models show no problems of autocorrelation and display normality in the error term (using the Kolmogorov/Smirnov test). Using weighted least squares, the error term also displayed constant variance. Again, we confirmed the results that were obtained in the initial tests. *PH* participation influenced positively the size of the dwelling in terms of squared meters of construction and number of rooms.

CONCLUSIONS

This study provides evidence that *PH* leads to the creation of wealth for its beneficiaries. What this study also discovered is that the other social objectives are not being met. *PH* does not lead its beneficiaries to greater levels of health, savings, happiness, or community relationships compared to the levels of non-associates. Although happiness was not contemplated in the *PH* objectives, it was included in the study as a way of seeing if the achievement of its objectives also meant obtaining this higher value for people. We did not find happiness associated with *PH*, nor with income, but with health. In turn, the level of happiness between *PH* beneficiaries and the control group was statistically the same. Nevertheless, given that the study did not have information at the time of the beginning of the study, we cannot discard the possibility that the happiness of the *PH* group could have been lower than the control group at the beginning.

We can draw a number of lessons for corporate practice. First, the firm should monitor the initial conditions of the community when it begins operations, which would lead to better comparisons so that the method of double differences could be applied. Second, a questionnaire should be applied to the participants at the moment of their registration in the program in which they could answer questions referring to the welfare variables that the program seeks to improve.

In terms of broader implications, this study has an important message for the development of certification standards. International certification in the CSR area is being developed under the definition ISO/WD 26000. The International Organization for Standardization (ISO) estimates

that the standard will be ready by November 30, 2009. In Mexico, there exist guidelines for the practice of CSR under the norm NMX-SAAT-004-IMNC-2004, which include the duty to gather evidence of social, environmental, and economic performance. These standards do not establish how to develop these indicators. There are firms that carry out consulting and certification for social responsibility without a standard procedure. This state of affairs leaves the community without a clear idea of what the firm actually has done and does to obtain such recognition. This study provides some guidance in how social impact should be evaluated.

REFERENCES

- Aguilar, M. & Ander-Egg, E. (1992). Evaluación de servicios y programas sociales. Madrid, España: Siglo XXI.
- Aupperle, K. E., Carroll, A. B. & Hatfield, J. D. 1985. An empirical examination of the relationship between corporate social responsibility and profitability. *Academy of Management Journal*, 28: 446-463.
- Banco Mundial (2004). La pobreza en México: Una evaluación de las condiciones, la tendencias y la estrategia del gobierno. México, DF.: Banco Mundial-México.
- Barnett, M. (2007). Stakeholder influence capacity and the variability of financial returns to corporate social responsibility. *Academy of Management Review*, 32 (3): 794-816.
- Bazant, Jean. (2003). Viviendas progresivas: Construcción de vivienda por familias de bajos ingresos. México, D.F.: Trillas.
- Becker, Gary, Philipson, Tomas & Soares, Rodrigo, (2005). The quantity and quality of life and the evolution of world inequality. *American Economic Review*, 95: 277-291.
- Becker, Henk & Vanclay, Frank. (2003). *The international handbook of social impact assessment*. Cambridge, MA: Edward Elgar.
- Brammer, S. & Millington, A. 2004. The development of corporate charitable contributions in the UK: A stakeholder analysis. Journal of Management Studies, 41: 1411-1434.
- Burke, L. and Logsdon, J. M. (1996). How corporate social responsibility pays off. *Long Range Planning*, 29: 495-502.
- Campbell, Donald & Stanley, Julian, (1966). *Experimental and quasi-experimental designs for research*. Chicago, Ill: Rand.
- Clarkson, Max, (1995). A stakeholder framework for analyzing and evaluating corporate social performance. *Academy of Management Review*, 20: 92-117.
- Cunningham, Katie & Ricks, Marc, (2004). Why measure, nonprofits use metrics to show that they are efficient. But what if donors don't care? *Stanford Social Innovation Review*, Summer: 44-51.
- Hart, Stuart, & Sharma, Sanjay, (2004). Engaging fringe stakeholders for competitive imagination. *Academy of Management Executive*, 18: 7-18.
- Husted, Bryan & Salazar, José (2006). Taking Friedman Seriously: Maximizing Profits and Social Performance. *Journal of Management Studies*, 43: 75-91.
- Jenkins, G. (2002). Stakeholder impacts. En Harberger A. y Jenkins G. (Eds.). *Cost-benefit analysis* (pp. 665-674). Cheltenham, UK: Edgard Elgar.
- McWilliams, A. y Siegel, D. (2000). Corporate social responsibility and financial performance: Correlation or misspecification? *Strategic Management Journal*, 21: 603-609.
- Meehan, William, Kilmer, Derek & O'Flanagan, Maisie (2004). Investing in society. *Stanford Social Innovation Review*. http://www.ssireview.org/articles/entry/investing_in_society/

- Orlitzky, M. O., Schmidt, F. L. and Rynes, S. L. (2003). Corporate social and financial performance: A meta-analysis. *Organization Studies*, 24: 403-442.
- Prahalad, C. K., (2006). The fortune at the bottom of the pyramid: Eradicating poverty through profits. New Jersey, NJ: Pearson.
- Queiroz, Michelle, (2007). Uma proposta de avaliacao para o investimento social privado. *Revista de Gestao Social e Ambiental*, 1: 22-40.
- Sen, Amartya (1999). Development as freedom. New York, NY: Anchor Books.
- Waddock, S. y Graves, S. (1997). The corporate social performance-financial performance link. *Strategic Management Journal*, 18: 303-19.
- Wood, Donna, (1991). Corporate social performance revisited. *Academy of Management Review*, 16: 691-718.