

Corporate Social Responsibility Effects on Competitiveness: Manufacturing SMEs in Guadalajara, Mexico

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EXECUTIVE SUMMARY

Corporate Social Responsibility (CSR) is the role that companies play for a sustainable development, in order to get a balance between economic growth, social wellness and the correct use of natural resources in the environment. This balance is vital to business operations. Companies have an important part in the solution to challenges we have as a society, in order to have a safe and prosperous environment. Therefore, we are focusing our work on CSR on manufacturing SMEs in the Guadalajara metropolitan area and their effect on competitiveness, which results in better positioning and recognition by society.

Keywords: Social responsibility, Competitiveness, Manufacturing SMEs.

INTRODUCTION

Recently, globalization has impacted companies' performance in our society (Siegle & Ward, 2007) setting restrictions and requirements to humanitarian labor activities and, in some cases, to obtaining monetary rewards. (Pirson & Lawrence, 2007). Nowada, it is a fact that the government is not competent enough to meet and cover basic needs for most of the people, and by consequence more options must exist in order to increase population quality lifestyle (Griesse, 2007).

Many companies have adopted social responsibility as part of their activities, for two basic reasons: First: It comes from the problems that society faces everyday as pollution, violence, poverty, etc., which are enough reasons to achieve deeper participation from each person. At this point companies have to show themselves as an example and also to show that they just don't have profitable purposes. There are also corporations contributing to social and environmental improvement. Second, the competitiveness result that may have this kind of activity, especially for those who are focused on strategies that increases profits, reinforces branding and also increases customer's loyalty.

By the middle of the 70s, the analysis based on implementation focused on the CSR model. Sethi (1975) proposed a three-stage plan based on the duties and responsibilities that the company has and that it will be including on its operation as: 1. Social responsibility stage, 2. Political stage and 3. Mandatory stage. Later, Carroll (1979) developed a model where he based on social responsibility performance from companies, which defines four interrelated categories: a. Economic, b. Legal, c. Ethics and d. Discretionary.

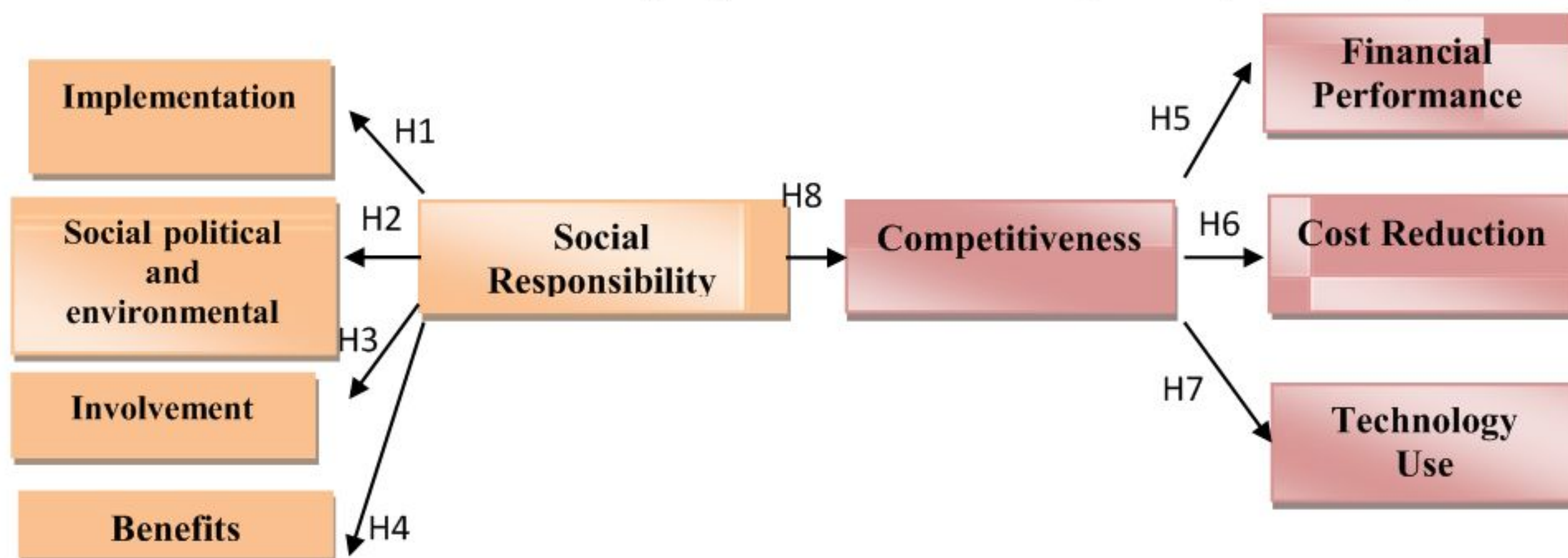
Drucker (1984) proposes that in order to achieve CSR implementation, it is necessary that businesses take advantage of their social responsibilities as business opportunities, in order to create skills, competencies, better jobs and opportunities for society to access to health services. That's how the relationship between corporate social performance and financial performance is one of the most researched topics (Chand & Fraser, 2006; McWilliams & Siegel, 2001). There are several studies that examine if CSR has or not a positive effect on financial performance. One of the most frequently arguments is that if the company has a positive influence on its stakeholders it might have a positive impact on its financial position (Allouche & Laroche, 2006). Same case happens about technology, where CSR contributes by developing performance and innovation, because in a long-term technological innovation becomes an important source as a competitive advantage.

Freeman (1994) mentions that the innovation skill is a special resource from the organization, which is part of key areas such as: technology, production, process, strategy, organization, knowledge and experience.

At the same time, some critics argue that the CSR is expensive and the positive effects might become apparent only in the long term. Active members involved from CSR argue that the cost of a social and environmental responsible behavior will return the company over time (Porter & Krammer, 2006). Especially when we talk about the positive relationship that can be found in an environmental and economic performance of the context (Russo & Fouts, 1997). Then the CSR, for some companies it can generate high costs, and it's really important to mention that once CSR is implemented is really expensive, but the benefits will be shown in long term and step by step in the future. Keiner (2008) says that CSR is a resource that generates competitive advantage. Moreover, the companies differentiate the reputation and corporate image, with a CSR strategy impacting in the financial performance (Flatt & Kowalczy, 2006; Fernández & Luna, 2007; Lai, 2010; Bear, Rahman, & Post 2010; Orlitzky, Schmidt, & Rynes 2003) getting long term sustainable benefits with a recognized identity as CSR in the society (Bendix & Abratt, 2007).

Therefore, this model can be used in order to increase competitiveness in some sectors that are used for reference for some countries. In Mexico's case, manufacturing industry is one of the most important parts of the industry, it offers products for domestic and international markets; like Castillo Clavero (1986) says, social responsibility means that when the company is on its real execution, must be aware of the real effects of its actions on the society, internalizing guidelines of behavior that represent a better positive attitude for values and social interests consideration (Carneiro, 2004). This CSR measurement is applied through implementation, involvement, benefits and a social-political and environmental competitiveness aspect based on its costs and financial and technological performance.

FIGURE 1
Theoretical Model for Analyzing the Effects of Social Responsibility in the Competitiveness



Source: own material

METHODOLOGY

The surveys were applied in 450 SMEs in the manufacturing industry in the city of Guadalajara, Mexico, during August and December 2012. The surveys applied were 512 SME's but 62 were rejected due information absence, the number of employees was from 11 to 250, simple random sampling was used, and the universe was 2847 SMEs.

Also, there are eight hypotheses that will contribute to this research:

- H1:** Higher implementation level, better social responsibility.
- H2:** Higher sustainability level, better social responsibility level.
- H3:** Higher involvement level, it increases social responsibility level.
- H4:** Higher social responsibility level, better benefits level.
- H5:** Higher financial performance level, better business competitiveness level.
- H6:** Higher cost reduction level, better business competitiveness level.
- H7:** Higher technology use level, better business competitiveness level.

H8: Higher social responsibility level, better business competitiveness level.

About development standards, Social responsibility was measured on a four scale items, adapted from Davis, (1973), Sethi (1975), Burrell and Morgan (1979), Carroll (1979), Drucker (1984), Cochran and Wood (1984), Barcena (2000), Hertz (2000), Bakan (2004), González and García (2006), Porter and Kramer (2006), Calvente (2007), Keinert (2008), Azcárate, Carrascto, and Fernández (2011) Barrera (2011). Competitiveness was measured on six items and was adapted from Friedman (1970), Barney (1991), Kay (1993), Pineiro (1993), Freeman (1994), Russo and Fouts (1997), Miles and Covin (2000), McWilliams and Siegel (2001), Chand and Fraser (2006), Beurden and Gößling (2008). All items used were based on a Likert scale of 5 positions with 1= absolutely disagree and 5= absolutely agree as limits

To assess the reliability and validation of scales measuring the level of intellectual capital and business competitiveness, a Confirmatory Factorial analysis (CFA) with the method of maximum likelihood and EQS 6.1 software (Bentler, 2005; Brown, 2006; Byrne, 2006).

Rates of statistical adjustment that were considered in the NFI, NNFI, IFC and RMSEA (Bentler & Bonnet, 1980; Byrne, 1989; Bentler, 1990; Hair et al., 1995; Chau, 1997; Heck, 1998).

ANALYSIS AND DISCUSSION

Confirmatory Factorial Analysis (CFA) results are represented on table 1 and shows that the model gives well adjustment data ($S-BX^2 = 1907.8820$; $df = 1321$; $p < 0.0000$); NFI = .838; NNFI = .938; CFI = .943; RMSEA = .031). At the same time, Cronbach's alfa and IFC exceed the value 0.70 suggested by Nunally y Bersntein (1994).

CHART 1
Internal Consistency and Convergent Validity of the Theoretical Model

Variable	Indicator	Factor Loading	Robust T Value	Cronbach's alpha	IFC	IVE
Implementation	RSG1	0.741***	1.000*	0.853	0.854	0.594
	RSG2	0.795***	23.509			
	RSG3	0.779***	21.097			
	RSG4	0.766***	21.842			
Social-political-environmental	RSP1	0.719***	1.000*	0.827	0.852	0.536
	RSP2	0.784***	22.356			
	RSP3	0.759***	21.316			
	RSP4	0.685***	11.969			
	RSP7	0.709***	18.572			
Involvement	RSI2	0.742***	1.000*	0.758	0.814	0.594
	RSI3	0.767***	13.152			
	RSI4	0.802***	13.303			
Benefits	RSB3	0.632***	1.000*	0.507	0.618	0.548
	RSB4	0.705***	7.307			
Financial performance	FP1	0.672***	1.000*	0.815	0.844	0.521
	FP2	0.762***	16.874			
	FP3	0.749***	15.746			
	FP4	0.707***	14.083			
	FP5	0.714***	11.109			
Cost Reduction	PC2	0.603***	1.000*	0.732	0.733	0.507
	PC3	0.625***	10.128			
	PC4	0.688***	10.652			
	PC5	0.634***	10.003			

Technology use	TE1	0.754***	1.000*	0.885	0.885	0.539
	TE2	0.764***	21.569			
	TE3	0.760***	22.081			
	TE4	0.751***	21.255			
	TE5	0.695***	17.699			
	TE6	0.768***	21.255			
S-BX ² (df = 1321) = 1907.8820 (p < 0.0000); NFI = .838 ; NNFI = .938 CFI = .943 ; RMSEA = .031						

* = Parameters base on the process identification value

Respect about the discriminant validity evidence, measurement method is given in two ways that are shown on chart 2. First, the range of 90% of confidentiality, none of the individual elements of the correlation factors matrix contains the value 1.0 (Anderson & Gerbing, 1988). Second, the variance extracted between each pair of factors is higher than its corresponding VEI (Fornell & Larcker, 1981). Therefore, based on these criteria we get as a conclusion that the different measurements made on the scale show enough reliability evidence and convergent and discriminant validity. See chart 2.

CHART 2

Discriminant Validity of the Theoretical Model Measurement

Variables	Social Responsibility	Competitiveness
Social Responsibility	0.543*	0.360
Competitiveness	0.275 - 0.468	0.496*

*These values present the estimation between correlation factors with a confidence interval of 90%.

The hypotheses were tested in the theoretical model of competitiveness and business social responsibility, using the Structural Equations Model (SEM) software EQS 6.1 (Bentler, 2005;) Byrne, 2006; (Brown, 2006).

The nomological validity of the theoretical model was analyzed through the performance of the chi-square test, in which the theoretical model was compared with the model measurement, not finding significant differences (Anderson & Gerbing, 1988; Hatcher, 1994). The results of this analysis are presented in chart 3

Chart 3 shows the results obtained from the Structural Equations Model, regards to the **H1** the results obtained, $\beta = 0.317$, $p < 0.001$, indicates that information research has significant effects in the implementation of manufacturing firms. Also for hypothesis **H2**, the results obtained, $\beta = 0.318$, $p < 0.001$, suggest that sustainability also has significant effects in social responsibility. In hypothesis **H3** the results obtained, $\beta = 0.240$, $p < 0.001$, suggest that involvement also has significant effects in manufacturing firms. In hypothesis **H4** the results obtained, $\beta = 0.207$, $p < 0.001$, suggest that the benefits also has significant effects in manufacturing firms.

Also, respect with hypothesis **H5** the results obtained, $\beta = 0.115$, $p < 0.001$, indicate that financial performance has significant effects about competitiveness level. In hypothesis **H6** the results obtained, $\beta = 0.105$, $p < 0.001$), suggest that cost reduction also has significant effects on business competitiveness. The results obtained in hypothesis **H7**, $\beta = 0.153$, $p < 0.001$, suggest the technology use also has significant effects on business competitiveness. Finally, the results obtained on hypothesis **H8**, $\beta = 0.291$, $p < 0.001$, presents that social responsibility has significant effects on business competitiveness

CHART 3
Results from the Theoretical Model of Business Social Responsibility

Hypothesis	Structural Relationship	Standardized Coefficient	Robust T Value
H1: Higher implementation level, better social responsibility.	Implementation → RSE	0.317***	22.149
H2: Higher sustainability level, better social responsibility level.	Sustainability → RSE	0.318***	18.553
H3: Higher level of involvement, increase the level of social responsibility.	Involvement → RSE	0.240***	13.227
H4: Higher social responsibility level, better benefits.	RSE → Benefits	0.207***	7.307
H5: Higher financial performance level, better business competitiveness.	Financial performance → Competitiveness	0.115***	14.453
H6: Higher cost reduction level, better business competitiveness.	Cost → Competitiveness	0.105***	10.261
H7: Higher technology use, better business competitiveness.	Tecnología → Competitiveness	0.153***	20.771
H8: better social responsibility development, better business competitiveness.	RSE → Competitiveness	0.445***	17.442
<i>S BX2 (df = 1305) = 1884.773; p < 0.000; NFI = 0.840; NNFI = 0.938; CFI = 0.944; RMSEA = 0.031</i>			

*** = p < 0.001

LIMITATIONS

The first limitation, the sample was based on companies from 20 to 250 workers, excluding companies from 1 to 10 workers, which represents an important amount from total manufacturing SMEs. Future studies should be important to consider this companies to analyze the social responsibility effects on business competitiveness.

A second limitation is that the questionnaire was applied to directors or CEOs, and the results could differ in functional managers. Therefore, in future studies, it would be important to consider customers' and suppliers' opinion in order to analyze the obtained results.

Finally, it is important to go beyond technical results: According to the the results, what would happen in SME manufacturing if a sophisticated model for measurement of business social responsibility and competitiveness was executed? What specific activities of the implementation, sustainability, involvement and benefits are the ones that most affect business competitiveness? What specific financial performance activities, cost reduction and use of technology are those that most affect business social responsibility? These and other some questions that might come out could be answered in future researching.

CONCLUSION

This research had shown that SMEs manufacturing in Guadalajara, has a good correlation between the dependent variable competitiveness with the independent social responsibility variable, and the results expressed in this research seems to be

consistent with the relationship between technology use factors, costs and financial performance with variable competitiveness, and also implementation factors, sustainability, involvement and benefits that are related with variable social responsibility.

These SMEs are in a changing process of administrative schemes, with better cognitive and sustainable system, and being conscious in order to create and generate new information, by increasing knowledge and learning on implementation, involvement and benefits of social responsibility in all the organization.

REFERENCES

- Anderson, J., & Gerbing, D. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, *13*, 411-423.
- Allouche, J., & Laroche, P. (2006). La relación entre las empresas responsabilidad social y desempeño corporativo financiero: Un estudio. *Responsabilidad social corporativa: Actuaciones y las partes interesadas*. Palgrave Macmillan, 3-40.
- Bear, S., Rahman, N., & Post, C. (2010). The impact of board diversity and gender composition on corporate social responsibility and firm reputation. *Journal of Business Ethics*, *97*, 207-221.
- Barney, J. (1991). Recursos de la empresa y ventaja competitiva sostenida. *Journal of Management*, *17*(1), 99-120.
- Bendix, M., & Abratt, R. (2007). Corporate identity ethics and reputation in supplier-buyer relationships. *Journal of Business Ethics*, *76*, 69-82.
- Bentler, P.M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, *107*(2), 238-246.
- Bentler, P.M. (2005). *EQS 6 Structural equations program manual*. Encino, CA: Multivariate Software.
- Bentler, P.M., & Bonnet, D. (1980). Significance tests and goodness of fit in analysis of covariance structures. *Psychological Bulletin*, *88*, 588-606.
- Beurden, P., & Gößling, T. (2008). El valor de los valores - un literatura opinar sobre la relación entre el desempeño social de las empresas y financiero. *Journal of Business Ethics*, *82*, 407-424
- Brown, T. (2006). *Confirmatory factor analysis for applied research*. New York: The Guilford Press.
- Byrne, B. (2006). *Structural equation modeling with EQS, basic concepts, applications, and programming* (2nd ed.), London: LEA Publishers.
- Carneiro, C. M. (2004). La responsabilidad social corporativa interna: La nueva frontera de los recursos humanos. Madrid, España: Esic.
- Carroll, A.B.A.(1979). Three-dimensional conceptual model of corporate performance. *The Academy of Management Review*, *4*(4), 497.
- Castillo C. A. M. (1986). *La responsabilidad de la empresa en el contexto social: su articulacion, gestion y control*. Málaga, España: Universidad de Málaga.
- Cochran, P. L., & Wood, R. A. (1984). Corporate social responsibility and financial performace. *Academy of Management Journal*, *27*(1), 42-56.
- Chand, M., & Fraser, S. (2006). La relación entre social corporativa desempeño y rendimiento financiero corporativo: Industria tipo de límite condición. *El Business Review*, *5*(1), 240-245
- Chau, P. (1997). Reexamining a model for evaluating information center success using a structural equation modeling approach. *Decision Sciences*, *28*(2), 309-334.
- Drucker, P. F. (1984). The new meaning of corporate social responsibility. *California Management Review*, *26*(2), 53.
- Fernández, J., & Luna, L. (2007). The creation of value through corporate reputation. *Journal of Business Ethics*, *76*, 335-346.
- Flatt, S., & Kpwalczy, S. (2006). *Corporate reputation as a mediating variable between corporate culture and financial performance*. New York: Identity & Competitiveness.
- Freeman, R. (1994). La política de la teoría de las partes interesadas: Un futuro cómo llegar. *Etica en los negocios trimestrales*, *4*(4), 409-421.
- Fornell, C., & Larcker, D. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *1* (18), 39-50.

- Griesse, M. (2007). The geographic, political, and economic context for corporate social responsibility in Brazil. *Journal of Business Ethics*, 73, 21-37.
- Hair, J.F., Anderson, R.E., Tatham, R.L., & Black, W.C. (1995). *Multivariate data analysis with readings*. New York: Prentice-Hall.
- Hatcher, L. (1994). *A step by step approach to using the SAS system for factor analysis and structural equation modeling*. Cary, NC: SAS Institute Inc.
- Heck, R.H. (1998). Factor analysis: Exploratory and confirmatory approaches. In Marcoulides, G.A. (Ed.), *Modern methods for business research*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Keinert, C. (2008). Corporate social responsibility as an international strategy. *J&MC Quarterly*, 86(1), 157-174.
- Lai, C., Chiu, C., Yang, C., & Paid, D. (2010). The effects of corporate social responsibility on brand performance: The mediating effect of industrial brand equity and corporate reputation. *Journal of Business Ethics*, 95, 457-469.
- McWilliams, A., & Siegel, D. (2001). Responsabilidad social empresarial: Un teoría de la perspectiva de empresa. *Academy of Management Review*, 26 (1), 117-128.
- Nunnally, J.C., & Bernstein, I.H. (1994). *Psychometric theory*. New York: McGraw-Hill.
- Orlitzky, M., Schmidt, F., & Rynes, S. (2003). Corporate social and financial performance: A meta-analysis. *Organization Studies*, 24(3), 403-441.
- Pirson, M., & Lawrence, P. (2007). Humanism in business – towards a paradigm shift? *Journal of Business Ethics*, 93, 553–565.
- Porter, M., & Kramer, M. (2006). Estrategia y sociedad: El vínculo entre la Ventaja Competitiva y Responsabilidad Social Corporativa. *Harvard Business Review en español*, 78-88.
- Russo, M., & Fouts, P. (1997). Una perspectiva basada en los recursos de las empresas ambiental rendimiento y la rentabilidad. *Academy of Management Journal*, 40(3), 534-559.
- Satorra, A., & Bentler, P.M. (1988). Scaling corrections for chi square statistics in covariance structure analysis. *American Statistics Association 1988 Proceedings of the Business and Economic Sections*, 208-313.
- Siegele, L., & Ward, H. (2007). Corporate social responsibility: A step towards stronger involvement of business in mea implementation? *Journal Compilation of the Foundation for International Environmental Law and Development*, 16(2), 135–144.
- Sethi, S.P. (1975). Dimensions of corporate social performance-an analytical framework. *California Management Review*, 17(3), 58.