

The cost of Corruption in American countries

Luiz Panhoca (Universidade Presbiteriana Mackenzie - Brasil) panhoca@mackenzie.com.br

Olga Maria Panhoca da Silva (Universidade de São Paulo - Brasil) ompanhocas@yahoo.com.br

Vladimir Fernandes Maciel (Universidade Presbiteriana Mackenzie - Brasil) vfmaciel@mackenzie.com.br

Abstract

This article is part of a research on corruption in Brazil and it is not theoretical. Despite this, it provides an economic interpretation of corruption. However, how can the population be engaged without having education, peace and democracy? In fact, health and good education are closely linked and contribute to the sustainability of human development. The objective of this study is to confirm the influence of corruption in the cost country and in the development of American Countries, by using correlation analyses. In this study, corruption and the development can be observed, by using the Human Development Index; the Corruption, by using the Perception of Corruption and the Education, by using the Education Index. Accompanying the HDI and observing two groups of countries, High Human Development presents HDI ranging from 9.937 to 8, Corruption ranging from 8.9 to 3.5 and Education ranging from 0.98 to 0.84. The Medium Human development presents HDI inferior to 0.788, Corruption ranging from 4.1 to 2.0 and Education ranging from 0.87 to 0.62. In conclusion, the rupture of the process of corruption is associated to education and can be considered a gradual process.

Key Words: Corruption, Education, Cost country.

Área Temática: Gestão de Custos Ambientais e Responsabilidade Social

1. Introduction

Country cost is usually related to logistic cost (transportation and infra-structure, like roads, ports, fuel consumption etc.), but it can be add all costs related to influence costs and the costs that institutional machine face to control the corruption. In that sense, the country cost increases the average cost of the production and thus price to final consumers. So, the way that average cost increases is due to tax burden and logistic expenses. Silva (1999) says:

[...] corrupt activities reduce the efficiency of private and public organizations. [and] (...) corruption could have costs to be incurred for economic growth, since it represents an unproductive activity and just illegal rent transfers. In pursuing rent, the rent seeker agent can obtain it in three basic ways: by innovation, ensuring special privileges, and resorting to crime and corruption (SILVA, 1999:38).

For example, Silva (1999) related that, in Brazil, the payment made by companies to the politicians as an “incentive bonus” to force the execution of expenditures is an amount around 5%-20% of the total price of the investment.

Under economy of information, the relationship of society and the politicians or the civil servants can be seen as a principal-agent problem (BUCHANAN & TULLOK, 1965). Public agent is rational and acts in accordance with him or her private objectives, although the

principal (society) delegates responsibility to represent and act by him or her. Nevertheless, the principal-agent problem is not alone: there is also moral hazard behavior:

According to Silva (1999), there are two ways to restrict corruption: the improvement of controlling system, and/or institutions such as a democratic government and public opinion. The former is limited by the expenditures due to asymmetric information because is costly to supervising the actions of the agents. The latter is related to the “rules of game” and incentives: corruption takes place whenever there is a higher incentive to bribe the Justice.

Supervision functions are mostly expensive or impossible [...]. Perhaps, the solution lays on the introduction of incentives in the contracts: if a priori an agent has an incentive to act in his own interest, a system of incentives can drive his behavior to a first best result from the point of view of the principal and of the agent. As regards corruption, the main problem is how to create a contractual architecture that limits the behavior of the public agent (SILVA, 1999:37).

So, by the reason described above, the institutional development of a country and its social capital (the stock of rules founded on trust and civic engagement) are crucial to constraint and to act upon corruption.

One can conclude that democracy can solve the problem of corruption. But, as Silva (1999:34) affirms,, “it can be dangerous to establish directly any kind of link between democracy and corruption”. The construction of institutions and the accumulation of social capital depend on the history of a country and its ability to educate people to become citizens.

Democracy is an important and necessary element to control corruption, but it is not a sufficient condition (OLSON, 1965). Assuming that a democratic system exists in a country, our hypotheses relays on that point: corruption tends to increase as educational level decrease, because...

[...] without public control over the action of the government, and with high levels of rent-seeking and corrupt competition, people tend to think that the status quo is unchangeable and such perception leads to an apathetic collective comportment. The way to vicious circle of chronic corruption is opened (SILVA, 1999:35).

In 2000, the UN Millennium Declaration gathered all nations to promote human dignity and equality in order to eradicate poverty. World leaders have promised to work together to achieve this goal up to 2015. In addition, peace, democracy and environmental sustainability are essential factors.

At the meeting, the rules of law and corruption’s controlling were enforced. Corruption affects countries as well as communities. Also, it is recognized to block the sustainability of human development and the economics’ growth.

In order to decrease corruption, national improvement of institutions, governance, better enforcement, stiffer penalties and increased community’s involvement are required.

According to Mbaku (1994), “in many countries was the choice of a development path, especially one that would result in a rapid accumulation of wealth which could be used to effect significant improvements in the standard of living of the people.”

Otherwise it can be dangerous to establish any kind of link between democracy and corruption. In some developed and democratic countries, democracy is not a sufficient factor in controlling corruption, spite of it’s social cost.

Corruption, commonly defined in the literature as the abuse of public poser for private benefit,

is a pervasive and universal phenomenon and affects almost every culture to different degrees (EVERHART & MARTINES-VAZQUEZ & McNAB, 2003).

A recent transitional country survey suggests that almost 40% of new enterprise expenses are consumed by informal payments (IMF 2000). Besides an environment where corruption and bribery are prevalent creates a situation where investment returns are difficult to predict.

According to Woodall (2000) we can argue that economic development is linked with institutional development. This is partially true. In some sense, good things came together. On the other hand, in the case of countries that have been through relatively recent economic and political liberalization, corruption is endemic. In Russia and some former communist countries, corruption appears to be related to the lack of enforcement of property rights (HARRISS-WHITE, 2003).

As Peter & Rummel (2004) pointed, corruption is best characterized as multimodal (i.e. pointing to clusters of countries with persistently different levels of corruption) and that corruption can be highly persistent, and characterized by multiple equilibria.

The reasons for sourcing in low social cost may seem obvious, but the question is far more complex than a simple pursuit of lower costs.

While customer demands, shareholder profit expectations, deflationary pricing, and global competition drives most companies to consider sourcing materials in low cost countries, the complexity of actually accomplishing an effective international sourcing strategy deserves a complete strategic evaluation (PEDERSEN, 2005: p.1).

It is necessary a certain pressure of involved people in order to deal with corruption. However, without Education, peace and democracy, how can the population be engaged? Good education and health are considered intrinsic values for people's well-being. The two of them are closely linked - education helps to improve health. As a consequence, a good health contributes to the economics growth and helps to raise poor people's income.

As Krueger (1992) has remarked that the role of the government was widely perceived to include not only the infrastructure and social overhead activities, but also the direct responsibility for economic activities traditionally regarded as being in the private sector, including agricultural marketing, establishment and management of hotels and other tourist services.

In many countries resources are plundered by corruption, benefiting elites at the expenses of poor people. Countering corruption requires strengthening governance and a better enforcement in regular monitoring of decision-making. Moreover, accountability and transparency are indispensable.

The decentralization tends to enhance transparency that makes possible the corrupted amount of money to divert to development's programs.

2. Objective

To confirm the influence of corruption in the cost country and development of American Countries, by using correlation analysis, is the objective of this study.

3. Methodology

In the selection of variables and components, choices regarding two issues are required (GINSBERG & OSBORN & BLANK, 1986). According to Diener and Suh, (1997), the specific variables employed in estimating each of the component indices need to be selected. Despite of such selection, generally based on theory, empirical analysis, pragmatism or

intuitive appeal, or some combination thereof.

Both bivariate and multivariate statistical techniques are employed where selection is based on empirical analysis (BABBIE, 1995). The most strongly correlated variables are selected from a larger sample of applicable variables. In these case was used bivariate analysis measures because the strength of the association between all pairs of variables. That development is a highly interdependent process and that characteristics will tend to be grouped together in successful economies (McGRANAHAN et al., 1972). Corruption and per capita income and are the two variables most often employed as dependent variables in discriminant and principal component analyses for the purpose of indicator selection.

4. Result

The search for alternative indicators of cost countries, has witnessed the development of a variety of composite indices. In this study, it could be observed, Development, Corruptions and Education. These indices represent macro-level valuations of development (as cost country) insofar as they integrate various social, political and economic elements of development in measurement. According to Sen (1984), these efforts are founded on the belief that “no single yardstick exists to measure development”. Furthermore, Sen (1985) argues that the increasing social and economic heterogeneity of nations necessitates the combining of both synthetic and specialized indicators in measurement.

<i>High Human development</i>	<i>HDI</i>	<i>Corruption</i>	<i>Education</i>
United States	0.937	7.6	0.98
Canada	0.937	8.9	0.98
Argentina	0.849	3.5	0.92
Uruguay	0.834	5.1	0.92
Costa Rica	0.832	4.5	0.86
Chile	0.831	7.5	0.90
Trinidad Tobago	0.802	5.3	0.84
Mexico	0.800	3.7	0.84
<i>Medium Human development</i>			
Panama	0.788	3.7	0.86
Colombia	0.779	3.8	0.85
Brazil	0.777	4.0	0.83
Venezuela	0.775	2.8	0.83
Peru	0.752	4.1	0.87
Dominican Republic	0.737	3.1	0.80
Ecuador	0.731	2.3	0.87
El Salvador	0.719	3.6	0.74
Bolivia	0.672	2.0	0.80
Honduras	0.667	2.7	0.70
Guatemala	0.652	2.9	0.65
Nicaragua	0.643	2.4	0.62

From: Informe sobre desarrollo humano (PNUD 2002/2003).

TABLE 1 – HDI, Perception of Corruption and Education Index in American Countries - 2001

In this study, these indices are:

- Development, by using the Human Development Index - HDI (PNUD, 2003);
- Corruption, by using the Perception of Corruption (PNUD, 2002);
- Education, by using the Education Index (PNUD, 2002).

The HDI is constructed by using: GPD per capita, life expectancy at birth and adult literacy rate plus gross enroll rate (Table 1). The index ranges from 0 to 1 – in which zero indicates the lowest human development.

The Perception of Corruption ranges from 0 to 10 – in which 10 indicate no corruption and zero indicates a high degree of corruption.

The Education index measures a country's relative achievement in both adult literacy and combined primary, secondary and tertiary gross enrollment. First of all, an index for adult literacy and another one for combined gross enrolment must be calculated. Then, the two indices are combined to create the education index, in which two-thirds weight goes to adult's literacy and one-third weight goes to the combined gross' enrolment.

The gross enrolment ratio can be higher than 100% as a result of grade repetition and entry at ages younger or older than the typical age at the grade level. This index ranges from 0 to 1 – in which zero indicates the lowest education level.

Every one of the countries presents HDI. Some of them, though, do not present Perception of Corruption:

- High Human Development group: Barbados, Bahamas and Cuba;
- Medium Human Development group: Antigua, Dominica, Saint Lucia, Jamaica, Suriname, Paraguay, Maldivas, Grenada, San Tome
- Low Human Development group: Haiti.

The analysis has proved that the HDI is dependent of corruption. The poorer is the country, the higher is the increase in the HDI as corruption decreases.

Accompanying the HDI and observing two groups of countries, High Human development presents HDI ranging from 9.937 to 8, Corruption ranging from 8.9 to 3.5 and Education ranging from 0.98 to 0.84. The Medium Human development presents HDI inferior to 0.788, Corruption ranging from 4.1 to 2.0 and Education ranging from 0.87 to 0.62 (Table 1).

Inside the groups, the corruption is almost homogeneous and it can be observed in Figure 1. The mild decline of the HDI line happens together with the oscillation of the Perception of Corruption.

In Figure 1, corruption is almost imperceptible in the first group, excluding Argentina, Mexico and Costa Rica. The level of education is elevated, except for Trinidad Tobago, Mexico and Costa Rica.

In the second group, it is possible to notice a great deal of corruption, which is worse in Bolivia, Ecuador and Nicaragua. The level of education is lower and it is worse in Nicaragua, Guatemala and Honduras (Figure 1).

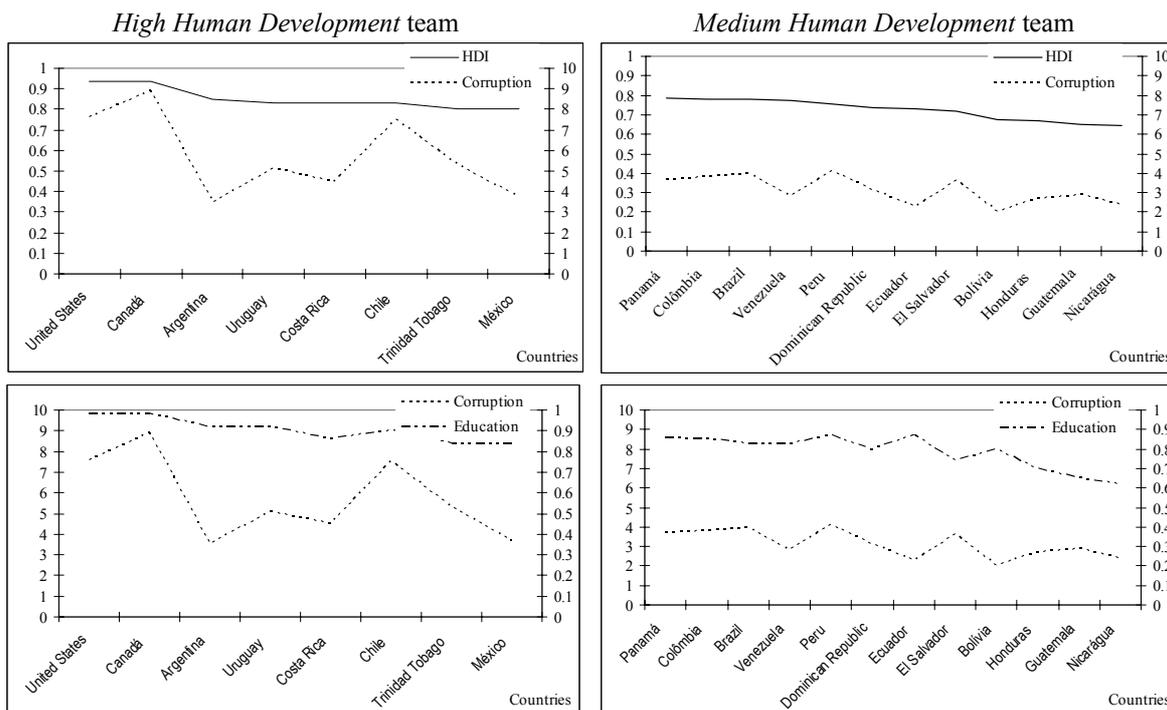


FIGURE 1 – HDI, Perception of the Corruption and education to American countries, 2001

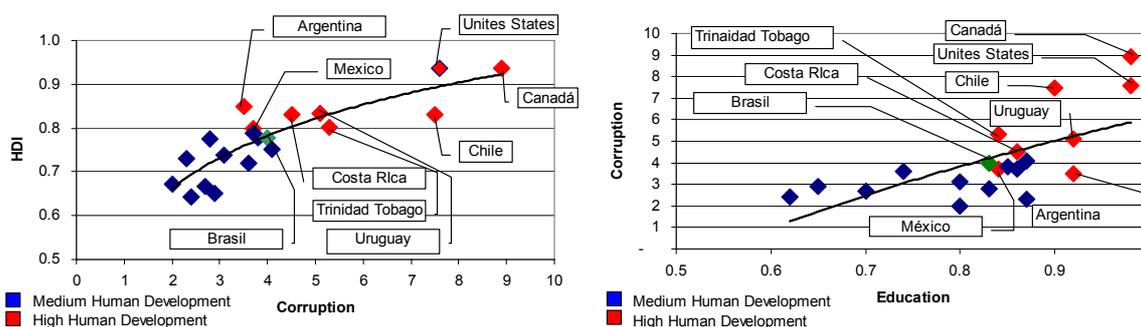


FIGURE 2– HDI, Perception of the Corruption and Education in American countries, 2001

In this study, it was considered as independent variables: Corruption in relation to HDI and Education in relation to Corruption. Between HDI and Corruption, the correlation is strong - 0.85 $p=0.00001$; between Education and Corruption, it is medium - 0.69 $p=0.00001$. HDI is strongly related to Corruption, whereas Education is related to Corruption in a medium level.

The analysis of Determination has indicated that the variation in the HDI can be explained throughout the variation in the corruption - 72.81% , that is a good determination. In the case of Corruption and education, the analysis has indicated 47.42% (Table 2).

It is possible to notice (Figure 2) that the Corruption and the HDI tendency curve are more related to each other than the Education and Corruption's curve.

The Perception of Corruption is only focused when all countries of the two groups are considered. In American Countries, corruption impacts the development, the economics and life.

4. Conclusion

The purpose of this paper was to briefly examine bureaucratic corruption and show that it represents an important cost.

All in all, the analysis has proved that the variation in the HDI can be explained by the variations in corruption.

Evidence from a few Latin American countries shows that corruption is a pervasive part of the political and economic systems of these countries. Corruption has allowed certain individuals and groups to amass enormous wealth for themselves at the expense of the mass of their fellow citizens.

The exponential analysis proves that the HDI is dependent of Corruption.

We've come to the conclusion that the rupture of the process of corruption is associated to education and can be considered a gradual process. By the end of the process, it is obvious that the corruption will continue in lower levels.

As a result of the priority given by the government to some fundamental social problems like hunger programs and education along with a budgetary attempt to guiding the public expenses to some poverty areas of the America, it is imperative to achieve a significant progress in the Perception of Corruption.

Therefore, policies that promote transparency and governance should stress the importance of involving local people in solutions. It can be dangerous to establish directly any kind of link between democracy and corruption.

So, the rupture of the process of corruption is associated to education and can be considered a gradual process.

On the strength of the systematic positive association between education, corruption and popular composite indices such as the HDI, despite many have claimed that these indices represent no real contribution to the literature on costs. Therefore, it may be reasoned that any greening of the HDI should take on board their basic requirements: the basic HDI should not be modified, a new index should be avoided and the underlying methodology should be transparent and easily understood (MORSE, 2003).

These indices remain invaluable in terms of their ability to simplify complex measurement constructs, to focus attention and to catch the eye, thus enhancing their political appeal. Yet, composite indices represent useful supplements to income-based development indicators.

Composite indices, furthermore, are often considered to be ideological statements rather than practically functional indicators. But there appear to be some bases to conclude that a proper accounting of the influences of corruption on economic growth may be need a closer examination of how corruption may affect the social cost of human, private and public factors.

As Rodgers and Wong (1997) said; "moving away from such piecemeal approach as we could say that when the people are happy, efficient, well trained and properly paid, it customers are more likely to be happy to."

Corruption is an institutional phenomenon, and must be studied as an economic phenomenon, in this sense corruption is a typical rent seeking problem. The economic method can be applied to researches on bribery and corruption. In this sense, corruption is a typical rent seeking problem.

References

BABBIE, E. (1995) - *The Practice of Social Research*. Wadsworth, Washington - DC.

BUCHANAN, J. M. & TULLOCK, G. (1965) - *The calculus of the consent*. Ann Arbour: Michigan State

University Press, 1965.

DIENER, E. & SUH, E. (1997) - Measuring quality of life: Economic, social, and subjective indicators. *Social Indicators Research*. v.40, p.189-216.

EVERHART, S. & MARTINEZ-VAZQUEZ, J. & McNAB, R. M. (2003) - Corruption, investment and growth in developing countries. National Tax Association - Tax Institute of America. *Proceedings*. p.84.

GINSBERG, N. & OSBORN, J. & BLANK, G. (1986) - Geographic Perspectives on the Wealth of Nations. Department of Geography *Research Paper*, Ner. 220. University of Chicago, Chicago, p.17-120.

HARRISS-WHITE, B. (2003) - Inequality at work in the informal economy: Key issues and illustrations. *International Labor Review*. Geneva: v.142, n.4; p.459.

IMF – International Monetary Fund. (2000) - Improving governance and fighting corruption in the Baltic and CIS countries. *IMF Economic Issues Series*. Washington DC. n.21.

KRUEGER, A. O. (1992) - *Economic Policy Reform in Developing Countries*. The Kuznets Memorial Lectures. Blackwell: Oxford, UK.

MBAKU, J. M. (1994) - Bureaucratic corruption and policy reform in Africa. *The Journal of Social, Political, and Economic Studies*. Washington: Summer.v.19, 2; p.149.

McGRANAHAN, D.V. & RICHARD-PROUST, C. & SOVANI, N.V. & SUBRAMANIAN, M. (1972) - Contents and Measurement of Socioeconomic Development, A Staff Study of the United Nations Research Institute for Social Development *UNRISD*. Praeger, New York. p.3-136.

MORSE, S. (2003) - Greening the United Nations Human Development Index? *Sustainable Development*; Nov, 11, 4. New York. p.183.

OLSON, M. (1965) - The logic of collective action. Oakland: Berkeley University Press.

PEDERSEN, A. (2005) - Staffing an international procurement office. *Purchasing*. Boston: Apr 7, v.134, n.6; p.60, p.1.

PETER, M. & RUMMEL, O. (2004) - Corruption: a non parametric analysis. *The journal of Economic Studies*. Glasgow. V.31, n.5/6, p.509.

PNUD (2002) *Informe sobre desarrollo humano: Profundizar la democracia en un mundo fragmentado*. Espanha: Ediciones Mundi-Prensa.

PNUD (2003) - *Human development report: Millennium Development Goals: a compact among nations to end human poverty*. New York: Oxford University press.

RODGERS, R. A. & WONG, J. (1997) - High productivity and quality in a low-cost country. *Human Resource Management International Digest*; Mar/Apr v.5, n.2; p.23-28.

SEN, A. K. (1984) – *Resouces, Values and development*. Harvard university Press, Cambridge, MA.

SEN, A. K. (1985) – *Commodities and Capabilities*. Elsevier: Amsterdam.

SILVA, M. F. G. (1999) - The political economy of corruption in Brazil. *Revista de Administração de Empresas*. São Paulo: EAESP-FGV, v. 39, no. 3, Jul-Set, p. 26-41.

WOODALL, P.(2000) The new economy: falling through the net? *The Economist*. London: Sep. 23. v.356, n.8189, p.S34 - S38.