EFFECT OF GOVERNANCE DIMENSIONS ON RECEIVING DONATIONS LINKED TO ENVIRONMENTAL NGOs IN BRAZIL

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Abstract

Objectives: This study aimed to analyze the effect of a set governance dimensions on donations with donor restrictions received by Non-Governmental Organizations (NGOs) in Brazil, under the agency theory perspective.

Method: The study sample consisted randomly of 108 environmental NGOs operating in Brazil, and the data were obtained through document survey or direct contact. The data were analyzed using Multiple Correspondence Analysis and Multiple Linear Regression.

Results: We first identify six governance dimensions (Board, Fiscal Council, Transparency, Management, Audit and Accountability) using Multiple Correspondence Analysis. We then identified through Multiple Linear Regression that four (Management, Accountability, Transparency and Audit) of the six dimensions of governance are positively associated with donations with donor restrictions.

Contribution: The findings of the study indicate that there are significant implications of the quality of governance for environmental NGO executives, for it points out that donors could make use of NGO governance information if it were better publicized.

Keywords: Governance; Third sector; Non-governmental organizations; Agency theory; Donations.

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Effect of governance dimensions on receiving donations linked to environmental NGOs in Brazil

1 INTRODUCTION

Mismanagement scandals in large multinational companies led in 1992, in the United Kingdom, to the report by the Cadbury Committee (Cadbury Committee, 1992) on the causes of various events related to the opportunistic management of companies. Unfortunately, the typical altruism of the third sector does not make the organizations that comprise it immune to opportunistic management (Glaeser, 2003). For example, there is the operation of the Public Ministry that investigates fraud and embezzlement by the Red Cross in Brazil.

The third sector in Brazil has undergone significant changes in the last two decades, with the huge growth in the number of entities (Institute of Applied Economic Research [IPEA], 2018) and the search for greater efficiency, resulting from the increased competition for donations (Lacruz, Moura & Rosa, 2019).

In 2018, the transfer of federal public resources to Non-Governmental Organizations (NGOs) alone totaled 12.9 billion (IPEA, 2019). This value is higher than the annual budget of a medium-sized ministry, such as the Ministry of Science, Technology, Innovation and Communications (12.7 billion), in comparison in the same year (Law n. 13.587, 2018).

In this context, the theme of governance has been extensively explored in studies applied to NGOs (eg. Saxton, Neely & Guo, 2014; Tacon, Walters & Cornforth, 2017; Ho & Huang, 2017). Governance in the third sector is analyzed from the analytical perspective of agency theory. In summary, governance in the third sector refers to the set of internal and external mechanisms put in place to limit the misuse of resources and ensure that the NGO fulfills its fiduciary duty and to align executive goals with the objectives of the NGO and with the public which it orients (Fredette & Bradshaw, 2012; Harris, Petrovits & Yetman, 2015).

Therefore, the assumptions and concepts of agency theory are extrapolated to the non-profit environment, in order to discuss the existing conflicts between the principal and the agent. These are observed in the agency relationship when the NGO (agent) is hired by the donor (principal) in the transfer of linked donations, that is, in the transfer of donations with restrictions from the donors. It is considered, then, that the agent (NGO) and the principal (Donor) act according to a rational behavior and are motivated by their own interests. It is also considered that there is information asymmetry between the parts of the agency relationship, different risk tolerance and different planning horizons (Eisenhardt, 1989; Jensen & Meckling, 1976).

In general, the discussion is based on the hypothesis that governance positively influences the receipt of donations. Previous studies have analyzed the relationship between governance mechanisms (eg Kitching, 2009; Yetman & Yetman, 2012) or specific dimensions of governance (eg Saxton, Neely & Guo, 2014; Hasnan, Mohamad, Zainuddin & Abidin, 2016) and the donation measures. Harris, Petrovits and Yetman (2015) advanced in this discussion by analyzing the joint effect of different dimensions of governance (board, management, policies, access, audit, executive compensation and minutes) on the receipt of donations by NGOs in the United States.

Despite the undeniable contribution of these studies, there is a research gap due to the scarcity of studies in low-regulation environments and limited access to information about NGO governance (eg. Hasnan et al. 2016), as in Brazil; above all, the joint impact of different dimensions of governance, as donors can take into account different dimensions of governance simultaneously in their decision to donate to NGOs.

Furthermore, the ambience can change the behavior of NGOs in relation to their governance, due to the regulatory role of the State, which, with the drafting and application of laws, creates an environment of external regulation (Desai & Yetman, 2015). In addition, the intensity of law enforcement can also
influence NGO behavior. Therefore, the law enforcement environment (strict or not) can also influence NGO governance (Yetman & Yetman, 2012).

Thus, this study analyzes the relationship between the dimensions of governance and the receipt of linked donations (i.e. those whose donors require the NGO to carry out specific tasks) by NGOs operating in Brazil (i.e. an environment of low regulation and limited access to information on NGO governance).

In the theoretical field, as highlighted, the agency theory is adopted as an analytical lens. This research option is based on the peculiarities of the dependent variable of the study. In summary, operating revenues in the third sector are divided into two groups, those with restrictions (linked) and those. no restrictions (unbound). The dependent variable in this study deals exclusively with linked operating revenues, that is, donations received with restrictions on use and associated with specific deliveries.

Thus, in this study, the contract is taken as the link of the agency relationship between the NGO (agent) and the donor (principal) established in the transfer of linked donations.

In this context, on the one hand, the donor can consider the NGO’s governance structure when making their donation, as they want their contributions to be used correctly (Harris et al., 2015); or, on the other hand, feel motivated to observe more directly the organization’s performance in relation to the project for which it makes the donation (Lacruz et al., 2019); or not caring about objective measures of performance (Cnaan, Jones, Dickin & Salamon, 2011), and therefore less likely to use information about NGO governance in their grant decision.

Also, in contexts of low regulation, such as in Brazil (Lacruz, Moura & Rosa, 2019), the donor may not have accessible information on the governance of NGOs. The unavailability of this information could lead the donor to consider other elements in the process of decision, such as measures of effectiveness and reputation (Bekkers & Wiepking, 2011; Lee, 2016).

In summary, the thesis defended is that governance practices allow NGOs to have more access to the donation market, as donors choose to support organizations that have better governance. In more specific terms, the dimensions of governance are positively related to the receipt of donations by NGOs. This thesis is based on the understanding that governance alleviates the agency conflict arising from the contractual relationship established between the (principal) donor and the NGO (agent) in the donation process (Glaeser, 2003).

Objectively, this study analyzes the possible relationship between the dimensions of governance and the receipt of linked donations by NGOs (hereafter referred to only by the term donations). The sample is randomly composed of 108 private non-profit associations and foundations in the environmental sector operating in Brazil. Data are from 2017, which reflect the competence of the year 2015.

This study has implications for NGO executives, policy makers and researchers, as few previous studies have revealed the underlying structure of governance (i.e. dimensions of governance) in NGOs or examine the joint relationship of various dimensions of governance and the receipt of grants, especially in an environment of low regulation and little access to information.

2 THEORETICAL FOUNDATION AND RESEARCH HYPOTHESIS

Jensen and Meckling’s (1976) approach discusses existing conflicts between the principal and the agent. This work is used as an explanatory basis for agency theory in this article, as well as other studies (e.g. Yetman & Yetman, 2012; Harris et al., 2015; Ho & Huang, 2017; Balsam, Harris & Saxton 2020).
From this perspective, it is assumed that in the donation process there is a principal-agent relationship between the donor and the NGO in the development of projects of mutual interest (Glaeser, 2003). As a result, a contractual relationship is established in which the donor delegates to the NGO the authority to make decisions regarding the execution of actions related to the object of the donation (Lacruz, 2020).

In this contractual relationship, the NGO, taken as an agent, may not act in the best interest of the donor, taken as the principal in the agency relationship, since both parties in the principal-agent relationship act according to rational behavior and are motivated by their own interests, seeking to maximize its utility function (Eisenhardt, 1989; Glaeser, 2003). In other words, agency problems arise when the agent manages resources owned by the principal seeking to maximize its own utility function, assuming that the behavior is based on the person’s own preferences and goals (Jensen & Meckling, 1994).

Governance mitigates agency problems arising from the relationship between the principal (donor) and the agent (NGO). This mitigation takes place through mechanisms that minimize various effects, such as information asymmetry, different utility functions (motivation and objectives), different levels of risk aversion and planning horizons (cf. Lacruz, 2020). It is assumed that governance contributes so that the interests of donors prevail in the application of resources donated to the NGO. In other words, effective governance limits the misuse of resources and helps NGOs fulfill their fiduciary duty and the alignment between the NGO executives’ objectives and their institutional mission (Fredette & Bradshaw, 2012; Harris et al., 2015).

Governance mechanisms that mitigate agency problems between the donor and NGOs may allow NGOs to have privileged access to the donation market (Glaeser, 2003). It is possible that governance sets some NGOs apart from others. These NGOs, coeteris paribus, would be considered more attractive to donors, which would lead them to receive more resources in donations.

In turn, governance has been taken as a multidimensional construct composed of several conceptual levels (eg. Board of Directors and Auditing). In this way, the theoretical definitions underlying its conceptualization can be better represented (Harris et al., 2015).

So, under the understanding that (i) governance is a multidimensional construct, composed of governance dimensions (eg Transparency and Fiscal Council) and that (ii) donors consider information about the governance structure of NGOs when taking donation decisions, the following research hypothesis is raised:

H1: The governance dimensions are positively related to donations received by NGOs.

This hypothesis is based on the understanding that governance is a construct composed of an underlying structure, that is, governance dimensions (Larcker, Richardson & Tuna, 2007; Harris et al., 2015). These dimensions establish mechanisms that minimize the effects of information asymmetry, different utility functions and risk tolerance, rational agent behavior and different planning horizons. These mechanisms alleviate the agency conflict arising from the contractual relationship between the principal (donor) and the agent (NGO) (Eisenhardt, 1989; Jensen & Meckling, 1976). Therefore, in the understanding that governance helps donors to realize that their interests will be well represented in the application of donations to the NGO.

Based on some evidence (e.g. Hedge, Nico & Fox, 2009; Harris et al., 2015), it is possible that donors perceive those NGOs that have governance more favorably. For example, Singh and Indgdal (2007) and Varotti and Malaia (2016) showed that donors consider different governance practices of NGOs in their donation decision.
On the other hand, there are reasons to expect that governance is unrelated to donor decisions. In general, donors can more directly observe the performance of the NGO in relation to the project to which they donated (Lacruz et al., 2019) or they may have motivations more linked to social status (Bekkers & Wiekoping, 2011) or, yet, they may not know how to properly use governance information (Harris et al., 2015). Therefore, donors may be less likely to use information about NGO governance in their donation decision.

In environments with low regulation and little access to information about NGO governance, such as Brazil, donors may not have accessible information on NGO governance. When there is no accessible information on governance, the agent can take it into account other elements in the decision process (Lee, 2016). In these environments, donors can access data on NGO governance through calls for project support (Lacruz et al., 2019), voluntary disclosure of NGOs (Cabedo, Fuertes-Fuertes, Maset-LLaudes & Tirado-Beltrán, 2018) or from the press (e.g. “100 Best NGOs in Brazil” published in Época magazine), for example.

Although some studies have already considered the effect of governance on the volume of donations in the context of the third sector, revealing important aspects, some questions remain unanswered.

Part of the studies have considered a single governance dimension, such as Board of Directors (e.g. Aggarwal, Evans & Nanda, 2012) or disclosure (e.g. Saxton et al., 2014) or accountability (e.g. Dumont, 2013), so there is still no a good understanding of the relationships of different dimensions of governance with the volume of donations.

It is worth highlighting the efforts to understand governance as a construct composed of underlying dimensions by Willems et al. (2012), that developed a governance quality index formed by 5 dimensions (External stakeholder involvement, Consistent planning, Structures and procedures, Continuous improvement and Leadership team dynamics) of which three (Consistent planning, Structures and procedures and Leadership team dynamics) were statistically significant (p-value < 0.05) to explain the governance quality index.

Also from Harris et al. (2015), who developed a governance measure composed of seven governance dimensions (board, management, policies, access, audit, executive compensation and minutes) of which six showed statistically significant relationships with total donations (the minutes dimension was not shown significant).

In addition, empirical studies with a sample of NGOs in low-regulation environments (e.g. Hasnan et al., 2016), such as the Brazilian one, are rare. For these reasons, it is useful to analyze whether the governance dimensions are associated with the volume of donations in a context of low accessibility of information about the governance of the NGOs benefiting from the donation.

The confirmation of the hypothesis of this study shows that the dimensions of governance contribute to the perception of donors (principal) that their donations will be applied by NGOs (agent) in a way that is more aligned with their interests (alleviating agency problems). Especially in environments with low regulation and limited access to information about NGO governance (the empirical research context of this study). On the other hand, if refuted, it indicates that, in these environments, donors seem not to consider governance attributes in donation decisions.
3 METHODOLOGICAL PROCEDURES

To assess the influence of governance dimensions on donations linked by NGOs, an exploratory, cross-sectional survey was developed, using a quantitative approach, using the Multiple Correspondence Analysis (MCA) and multiple linear regression techniques.

As part of the research strategy, the chosen analysis units were environmental NGOs operating in Brazil, legally constituted in the form of an association or non-profit private foundation. It is clarified that NGOs in the environment segment were considered with the purpose of acting classified as Environment and animal protection in the research, that is, "private foundations and non-profit associations in Brazil" (Brazilian Institute of Geography and Statistics [IBGE], 2012). Delimiting the study to an area of action and geographic field of action, in an operational perspective, contributes to the homogeneity of the units of analysis among the NGOs themselves.

In this study, the relationship between the dimensions of governance present in the organizational structure of NGOs and the receipt of linked donations is analyzed. Thus, the dependent variable was specified as operating income with restrictions (i.e. donations). It is explained that NGOs raise funds linked to projects for the performance of core activities, submitting project proposals to national and international organizations; and unbound resources to cover expenses that are not linked to specific projects, but to the entire organization, such as commercial processes (sale of products and services), crowdfunding, donations from partners, etc. (Lacruz, 2014).

In this context, according to the last published Environmental Management Yearbook, 97% of the resources of environmental NGOs operating in Brazil came from donations from partners, national organizations and international organizations (Análise Editorial, 2015). Therefore, the volume of resources related to revenues from services rendered and from the sale of goods is residual.

As a measure of the governance dimensions (explanatory factor), the presence of a set of governance mechanisms (proxies) identified in previous studies (eg Harris et al., 2015; Blouin et al., 2018) was used as well as in guides to better governance practices for NGOs (eg World Association of non-governmental organizations [WANGO], 2004; Brazilian Institute of Corporate Governance [IBGC], 2016).

In addition, the age of the NGO was included in the model as a control variable, as a measure of reputation, under the argument that NGOs need operating time to implement governance practices (Saxton, Neely & Guo, 2014). The stepwise regression model was used to analyze the data (adhering to the exploratory nature of this study), forcing the entry of the control variable (ln Age). The rule for input and removal of variables from the regression model was established as follows: input p-value < 0.05 and output p-value ≥ 0.10. The R software version 3.5.3 (R Core team, 2019) was used for data processing.

Data were collected through documentary survey in financial statements, annual activity reports and statutes available on the NGO websites or, alternatively, taken through the CSO Map repository (cf. http:mapaosc.ipea.gov.br), direct contact (telephone and email) and records of the National Registry of Environmental Entities (CNEA). Table 1 shows the operational definitions of the study variables.
Table 1. Operationalization of variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Scale</th>
<th>Description</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donations</td>
<td>Continuous</td>
<td>Natural logarithm of revenues with restrictions in the Income Statement for the year ended 2015</td>
<td>Balsam et al. (2020); Blouin et al. (2018); Hasnan et al. (2016); Harris et al. (2015); Saxton, Neely &amp; Guo (2014); Kitching (2009)</td>
</tr>
<tr>
<td>Board of Directors</td>
<td>Existence</td>
<td>Existence of a Board of Directors</td>
<td>Balsam et al. (2020); Blouin et al. (2018); IBGC (2016); Hasnan et al. (2016); Harris et al. (2015); MCN (2014); AICD (2013); Yetman e Yetman (2012); Fredette e Bradshaw (2012); MANO (2004); WANGO (2004); ACFO (2002)</td>
</tr>
<tr>
<td>Election of the Board of Directors</td>
<td>Formal rules</td>
<td>Formal rules for the election of members of the Board of Directors</td>
<td>IBGC (2016); MCN (2014); AICD (2013); MANO (2004); WANGO (2004); ACFO (2002)</td>
</tr>
<tr>
<td>Mandate of the Board of Directors</td>
<td>Mandate of the members of the Board of Directors formally stipulated</td>
<td>IBGC (2016); MCN (2014); AICD (2013); MANO (2004); WANGO (2004); ACFO (2002)</td>
<td></td>
</tr>
<tr>
<td>CEOs Compensation</td>
<td>CEO's remuneration approved by the Board of Directors</td>
<td>Balsam et al. (2020); Blouin et al. (2018); IBGC (2016); Harris et al. (2015); MCN (2014); AICD (2013); MANO (2004); WANGO (2004); ACFO (2002)</td>
<td></td>
</tr>
<tr>
<td>Independence of the Board of Directors</td>
<td>CEO does not participate, with voting rights, in Board of Directors meetings</td>
<td>Balsam et al. (2020); Blouin et al. (2018); IBGC (2016); Harris et al. (2015); MCN (2014); AICD (2013); Yetman e Yetman (2012); MANO (2004); WANGO (2004); ACFO (2002)</td>
<td></td>
</tr>
<tr>
<td>Election of the Fiscal Council</td>
<td>Formal rules</td>
<td>Formal rules for the election of members of the Fiscal Council</td>
<td>IBGC (2016)</td>
</tr>
<tr>
<td>Mandato do Conselho Fiscal</td>
<td>Mandate of the members of the Fiscal Council formally stipulated</td>
<td>IBGC (2016)</td>
<td></td>
</tr>
<tr>
<td>Advisory Committee</td>
<td>Existence of at least one advisory committee</td>
<td>Balsam et al. (2020); Blouin et al. (2018); IBGC (2016); Harris et al. (2015); MCN (2014); AICD (2013); Yetman e Yetman (2012); MANO (2004); WANGO (2004)</td>
<td></td>
</tr>
<tr>
<td>Ontological plan</td>
<td>Mission, vision and formally established institutional values</td>
<td>IBGC (2016); MCN (2014); AICD (2013); Yetman e Yetman (2012); MANO (2004); ACFO (2002)</td>
<td></td>
</tr>
<tr>
<td>Annual activity planning</td>
<td>Annual activity plan approved by the Board of Directors</td>
<td>IBGC (2016); MCN (2014); AICD (2013); Willems et al. (2012); MANO (2004); WANGO (2004); ACFO (2002)</td>
<td></td>
</tr>
<tr>
<td>Policies and codes</td>
<td>Policies and/or codes approved by the Board of Directors</td>
<td>Blouin et al. (2018); IBGC (2016); Harris et al. (2015); MCN (2014); AICD (2013); Yetman e Yetman (2012); MANO (2004); WANGO (2004); ACFO (2002)</td>
<td></td>
</tr>
<tr>
<td>Independent audit</td>
<td>Existence of independent audit</td>
<td>IBGC (2016); Harris et al. (2015); MCN (2014); AICD (2013); Yetman e Yetman (2012); MANO (2004); WANGO (2004); ACFO (2002)</td>
<td></td>
</tr>
<tr>
<td>Big Six</td>
<td>Independent auditing is a Big Six (Deloitte, PwC, KPMG, EY, BDO or Grant Thornton)b</td>
<td>Yetman e Yetman (2012); Kitching (2009)</td>
<td></td>
</tr>
<tr>
<td>Appreciation of the Annual Activity Report by the General Assembly</td>
<td>Annual activity report appreciated by the General Assembly</td>
<td>IBGC (2016); MCN (2014); AICD (2013); Willems et al. (2012); MANO (2004); WANGO (2004); ACFO (2002)</td>
<td></td>
</tr>
<tr>
<td>Disclosure of Financial Statements</td>
<td>Financial statements published on the Internet</td>
<td>Cabedo et al. (2018); IBGC (2016); MCN (2014); Saxton, Neely &amp; Guo (2014); Dumont (2013); AICD (2013); MANO (2004); WANGO (2004); ACFO (2002)</td>
<td></td>
</tr>
<tr>
<td>Appraisal of Financial Statements</td>
<td>Financial statements appreciated by the Fiscal Council</td>
<td>IBGC (2016)</td>
<td></td>
</tr>
<tr>
<td>Disclosure of the Annual Activity Report</td>
<td>Annual activity report published on the Internet</td>
<td>Cabedo et al. (2018); IBGC (2016); MCN (2014); Saxton, Neely &amp; Guo (2014); Dumont (2013); AICD (2013); MANO (2004); WANGO (2004); ACFO (2002)</td>
<td></td>
</tr>
<tr>
<td>Submission of the Annual Activity Report</td>
<td>Annual activity report sent to donors</td>
<td>IBGC (2016); MCN (2014); AICD (2013); MANO (2004); WANGO (2004); ACFO (2002)</td>
<td></td>
</tr>
<tr>
<td>Appreciation of the Annual Activity Report by the Board of Directors</td>
<td>Annual activity report appreciated by the Board of Directors</td>
<td>IBGC (2016); MCN (2014); AICD (2013); MANO (2004); WANGO (2004); ACFO (2002)</td>
<td></td>
</tr>
<tr>
<td>Disclosure of team qualification</td>
<td>Qualification of Board Members and CEO on the Internet</td>
<td>Cabedo et al. (2018); IBGC (2016); Harris et al. (2015); Saxton, Neely &amp; Guo (2014); Dumont (2013); WANGO (2004)</td>
<td></td>
</tr>
<tr>
<td>CEO Assessment</td>
<td>Formal evaluation of the CEO by the Board of Directors</td>
<td>IBGC (2016); MCN (2014); AICD (2013); Fredette e Bradshaw (2012); MANO (2004); WANGO (2004)</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>Continuous</td>
<td>Natural logarithm of the complete years of foundation on December 31, 2015</td>
<td>Blouin et al. (2018); Harris et al. (2015); Saxton, Neely e Guo, (2014); Kitching (2009)</td>
</tr>
</tbody>
</table>

Notes:
- aCEO (Chief Executive Officer).
- bConsidering the total annual revenue in 2015.

Because the variables related to governance mechanisms are qualitative, assuming dichotomous values, the ACM was initially used in order to identify the underlying structure of governance in NGOs (i.e. the dimensions of governance).
The dimensions identified in the ACM were used as factors in specifying the regression model. For this purpose, the standardized score of the sum of the observations of the variables of each dimension was used as the value of observations. The generic regression equation can be expressed as follows:

\[
\ln(\text{Donations}_i) = \beta_0 + \beta_1 \ln(\text{Age}_i) + \beta_2 \text{Dimension}_i + \mu_i
\]  

(1)

It is explained that the natural logarithm of Donations and Age was used in order to minimize the effect of bias in the distribution of these variables, such as Harris et al. (2015). Thus, it is assumed that the exponential growth or decay of donations in relation to the absolute variations of the dimensions of governance and that donations present a constant relative variation in relation to variations in age (Gujarati, 2000).

Considering the significance level (\( \alpha \)) of 0.05; statistical power (1 – \( \beta \)) of 0.8; effect size (\( f^2 \)) of 0.15, considered average by the Cohen gradation (2003); and seven predictors, the minimum estimated sample size was 103 observations. Therefore, the sampling plan was drawn up (Table 2).

<table>
<thead>
<tr>
<th>Elements</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGOs in Brazil with field of activity classified by FASFILE as environment and animal protection</td>
<td>2,242</td>
</tr>
<tr>
<td>NGOs registered in the National Registry of Environmental Entities</td>
<td>654</td>
</tr>
<tr>
<td>Minimum sample size</td>
<td>103</td>
</tr>
<tr>
<td>Sample</td>
<td>108</td>
</tr>
<tr>
<td>Geographic extension</td>
<td>Brasil</td>
</tr>
<tr>
<td>Temporal extension</td>
<td>2015</td>
</tr>
</tbody>
</table>

Note. From the Brazilian Institute of Geography and Statistics (2012) and the National Council for the Environment (2016).

It is explained that the power of statistics in regression concerns the probability of detecting a specific level of determination coefficient or regression coefficient, for a given sample size and significance level, as statistically significant (Gujarati, 2000); and that the effect size refers to the degree to which the investigated effect is present in the population of interest (Cohen, 2003).

The sample consisted of 108 NGOs in a simple random form from the list of NGOs registered with the CNEA. There was a need for new drawings, without repetition, as the necessary data for all the NGOs initially drawn were not identified.

The data were collected in the first two months of 2017, however, they are related to the 2015 competence. If the data collected sought to reflect the 2017 or even 2016 competence, there could be a bias due to the lack of available information, since all analyzed documents are prepared and disseminated in the year following its fiscal year.

4 RESULTS AND DISCUSSION

Before starting the measurement extraction procedures, the sample is characterized in order to broaden the understanding of the results, in relation to donations and the age of the NGOs (Table 3).
Table 3. Donations and Age

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Donations (in millions of Reais)</th>
<th>Idadeb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ageb</td>
<td>16.7</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>5,137</td>
<td>16.7</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>10,081</td>
<td>7.7</td>
</tr>
<tr>
<td>Minimum</td>
<td>100</td>
<td>5</td>
</tr>
<tr>
<td>Maximum</td>
<td>65,000</td>
<td>29</td>
</tr>
<tr>
<td>1st quartile</td>
<td>430</td>
<td>10</td>
</tr>
<tr>
<td>2nd quartile</td>
<td>1,200</td>
<td>16</td>
</tr>
<tr>
<td>3rd quartile</td>
<td>5,000</td>
<td>24</td>
</tr>
</tbody>
</table>

Note. n = 108.

aTotal operating revenues with restrictions for the year ended 2015. bComplete years of foundation in 31/12/2015.

There is a discrepancy both in the amounts received in donations and in age between the NGOs in the sample (coefficient of variation of 196% and 46%, respectively). This result was expected, given the heterogeneous profile of third sector entities in Brazil (IPEA, 2018). This indication of univariate outliers strengthens the need to verify the presence of influential observations in the regression residuals.

4.1 Governance Dimensions

Then, in order to identify the dimensions of governance in NGOs, ACM was processed using the FactMineR nFactors package. Using the scree plot criteria (Cattell, 1966), which evaluates the linear decreasing trend of the percentage of inertia explained by each dimension, and the parallel analysis (Horn, 1965), which compares the eigenvalues obtained empirically with the eigenvalues obtained through Monte Carlo Simulation, six dimensions were retained, which together explain 74% of the variance of the variables (Table 4).

Table 4. Governance dimension

<table>
<thead>
<tr>
<th>Management (Inertia = 0.07)</th>
<th>Accountability (Inertia = 0.06)</th>
<th>Audit (Inertia = 0.07)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Annual Activity Planning</td>
<td>* Appreciation of the Annual Activity Report by the General Assembly</td>
<td>* Auditoria independente</td>
</tr>
<tr>
<td>* Ontological Plan</td>
<td></td>
<td>* Big six</td>
</tr>
<tr>
<td>* Policies and Codes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board of Directors (Inertia = 0.27)</td>
<td>* Submission of the annual activity report</td>
<td></td>
</tr>
<tr>
<td>* Board of Directors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Election of the Board of Directors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Mandate of the Board of Directors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* CEO remuneration</td>
<td></td>
<td></td>
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<tr>
<td>* Consideration of the Annual Activity Report by the Board of Directors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* CEO Assessment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Independence of the Board of Directors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Advisory Committee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Fiscal Council</td>
<td>* Election of the Fiscal Council</td>
<td></td>
</tr>
<tr>
<td>* Mandate of the Fiscal Council</td>
<td>* Assessment of Financial Statements</td>
<td></td>
</tr>
<tr>
<td>* Disclosure of team qualification</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. n = 108.

Operationally, the governance dimensions that emerged from the ACM (Board of Directors, Management, Fiscal Council, Transparency, Accountability and Independent Audit) were used as independent variables. More specifically, the observable variables (proxies of governance mechanisms) were interpreted as indicators that reflect the underlying theoretical constructs (dimensions of governance). In other words, governance is empirically used as a construct composed of dimensions, which in turn are constituted by governance mechanisms.
Thus, governance is understood as a set of dimensions, composed of incentive and control mechanisms, in order to alleviate the agency conflict arising from the contractual relationship between the principal and the agent.

4.2 Effect of Governance Dimensions on Donations

Next, the effects of the six governance dimensions on the receipt of linked donations were examined, replacing the dimensions extracted from the ACM in the generic regression equation.

\[ \ln(\text{Donations})_i = \beta_0 + \beta_1 \ln(\text{Age})_i + \beta_2 \text{Dimensions}_i + \mu_i \]  

The variables of interest are the six dimensions of governance that emerged from the ACM (Board of Directors, Management, Fiscal Council, Transparency, Accountability and Independent Audit), for which positive regression coefficients are expected, consistent with the central hypothesis of the study. Table 5 shows the Pearson correlations between the variables.

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Board</td>
<td>1</td>
<td>0.377**</td>
<td>0.108</td>
<td>-0.007</td>
<td>0.261**</td>
<td>0.371**</td>
<td>0.402**</td>
<td>0.016</td>
</tr>
<tr>
<td>Management</td>
<td>1</td>
<td>0.198*</td>
<td>0.198*</td>
<td>0.009</td>
<td>0.397**</td>
<td>0.375**</td>
<td>0.635**</td>
<td>0.002</td>
</tr>
<tr>
<td>Fiscal Council</td>
<td>1</td>
<td>-0.016</td>
<td>0.158</td>
<td>0.222*</td>
<td>0.188</td>
<td>-0.020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audit</td>
<td>1</td>
<td>-0.558**</td>
<td>0.226*</td>
<td>0.226*</td>
<td>0.088</td>
<td>0.032</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transparency</td>
<td>1</td>
<td>0.226*</td>
<td>0.431**</td>
<td>0.534**</td>
<td>0.106</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accountability</td>
<td>1</td>
<td>0.026</td>
<td>0.026</td>
<td>0.026</td>
<td>0.103</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In Donations</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. n = 108.

** Significant to 99% (two-tailed). * Significant to 95% (two-tailed).

The correlation analysis (Table 5) reveals four independent variables as candidates for the final regression model (0.4 < r < 0.70; p-value < 0.0). It is also noted that there are few moderate (0.3 < r ≤ 0.50) or strong (r > 0.5) statistically significant correlations between the independent variables, according to the Miles and Shevlin (2001) criterion, which strengthens the choosing this set of variables as predictors.

Furthermore, it is noteworthy that no significant correlation was identified between the control variable (In Age) and any variable. However, it cannot be ruled out, a priori, that variables with low bivariate correlation are shown to be statistically significant in the multiple regression model. Also noteworthy is the negative correlation between Audit and Transparency (r = - 0.558; p-value < 0.01).

For a better evaluation of the regression results, the assumptions made by the multiple linear regression model were verified. Linearity was verified by visual analysis of residuals x adjusted values. The variance inflation factor (VIF) denoted the absence of multicollinearity (VIF < 10) and the Condition Index (CI) indicated that the variables would not present collinearity problems if they were together (CI < 30), according to criteria proposed by Gujarati (2000). The Shapiro-Wilk test (p-value = 0.821) does not allow rejecting the hypothesis of normality of the residuals. The presence of influential values (D < 1) was also ruled out by the Cook distance, according to the criterion suggested by Gujarati (2000).

It was also not possible to reject the hypothesis that the final model was correctly specified by the linktest (p-value = 0.052) and by the RESET test (p-value = 0.054). In the same sense, no evidence
of complementarity, suppression or redundancy was found between the predictors in the multiple regression equation.

The hypothesis of homoscedasticity of the residuals, however, was rejected by the Breusch-Pagan test (p-value = 0.012). For this reason the regression was processed using White’s robust estimator.

Then, multiple linear regression was processed using the stepwise method to select the variables, forcing the control variable (ln age) in the first stage of the process. For that, the lmtest, perturb and car packages were used for the R software. See Table 6.

<table>
<thead>
<tr>
<th>Table 6. Multiple linear regression - White’s robust estimator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variáveis</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>(Constant)</td>
</tr>
<tr>
<td>ln Age</td>
</tr>
<tr>
<td>Management</td>
</tr>
<tr>
<td>Accountability</td>
</tr>
<tr>
<td>Transparency</td>
</tr>
<tr>
<td>Audit</td>
</tr>
</tbody>
</table>


It is observed in Table 6 that the control variable (ln Age) did not show a significant relationship with the dependent variable (ln Donations). The explained variance was almost nil (R² = 0.001). The variables that made up the final regression model, controlling for effects by the age of the NGOs, were: Management, Accountability, Transparency and Auditing.

Thus, the central hypothesis of the study is partially confirmed that the dimensions of governance positively impact donations received by NGOs, as four of the six dimensions of governance revealed through the ACM (cf. Table 4) have composed the final model regression analysis (cf. Table 6).

The dimensions Management, Accountability, Transparency and Audit, controlling for the effects of age of NGOs, obtained a degree of association of 74.7% with Donations (multiple correlation between the predictor score and the dependent variable). The coefficient of determination (R²), in turn, explains 55.8% of the variation in donations is explained by the joint variation of the variables that emerged in the model. It is noteworthy that the R² captures only the relationship between the variables used in the model. As only four variables related to governance dimensions captured the relationship in a situation where numerous other factors, such as tangibility (e.g. Durnev & Kim, 2005), did not exist, the model can be considered satisfactory.

Standardized betas (β) allow us to assess the relative importance of the independent variables (Management, Accountability, Transparency and Audit) in the variation of the dependent variable (ln Donations). Thus, Management was the most relevant variable. Classifying the relative influence of variables as high or low is difficult, however, the relative magnitude shows Management = 1.88 x Audit (i.e., 0,401/0,213).

Otherwise, evaluating the non-standardized betas (B), it can be seen that for each unit in the scores of the Management and Audit dimensions, a relative increase of 63.6% and 33.7% in donations, respectively, is expected (linear-log model).
NGOs seem to derive the greatest benefit from better governance in management, but each of the governance dimension has incremental explanatory power, signaling that donors consider complementary governance dimensions in their grant decisions, consistent with the research’s central hypothesis.

This result is in line with what Singh and Indgdal (2007) argue. When discussing donor best practices in relation to NGOs in Nepal, the authors highlighted that donors demand a range of NGO governance practices in the donation decision process.

Thus, the absence of governance practices can lead to a reluctance by donors to contribute funds to NGOs, as weak governance equates to weak management monitoring and thus gives rise to agency costs.

In the Brazilian context, Ávila and Bertero (2016) identified a positive relationship between a governance index (operationalized by the average of the independence, transparency and accountability constructs) and measures of economic-financial performance and volume of operations. Also in the Brazilian context, Varotti and Malaia (2016) found that governance practices were essential to attract the interest of the sponsoring organizations and the consequent contribution of resources to the development of the TRY Rugby project (British Council and Premiership Rugby). The findings of this study are consistent with those of Ávila and Bertero (2016) and Varoti and Malaia (2016), reinforcing that donors consider the governance of NGOs in their donation decisions.

Specifically on the dimensions of governance that emerged from the ACM, the products (deliverables) related to the actions of agents to show that their behaviors are not harmful to the principal and monitoring of agents by the principal (Jensen & Meckling, 1976), in this study, refer to the Management dimension. This dimension involves the elements that guide the activities of the executive team, the Councils (of Administration and Audit) and the General Assembly or the Board of Trustees (Ontological Plan, Annual Activity Plan, Codes and Policies).

The results indicate that the presence of formal policies, lato sensu, can help to encourage employees to confidentially report unethical behavior and avoid conflicts of interest (e.g. code of conduct and anti-corruption policy), serving as a guide for management practices. To the extent that these policies can improve NGO governance by reducing information asymmetry, the findings signal that they can increase donor confidence that their donations are used to further the NGO’s institutional mission.

Thus, the absence of formal policies increases the separation between donors and NGO executives, which can magnify the agency’s problems, making it more difficult to ensure that the work is being carried out properly, as they indicate less oversight within the NGO and therefore less ability to avoid agency problems.

In turn, the Accountability refers to the actions of the administrative body to report to the higher level, in this case the appreciation by the General Assembly (associations) or Board of Trustees (foundations) of the Annual Activity Report that was presented by the main executive of the NGO; and also the accountability to its donors, made operational by sending the Annual Activity Report to the donors.

The control exercised by higher authorities and by donors, through the regular receipt of follow-up by NGO executives, helps donors to analyze whether their donations are being used correctly. Tacon, Walters and Cornforth (2017) evidenced in a longitudinal case study that accountability is a crucial element of governance, especially in the third sector, due to the multiplicity of stakeholders and the resulting need to provide accountability for various ways.

Blouin, Lee and Erickson (2018), in turn, showed that voluntary disclosure on the web is strongly correlated with donations received. Abouassi and Trent (2016), on the other hand, propose that accountability
is not a consequence of the relationship with donors, but a constitutive element of that relationship. These studies produce evidence that reinforces the importance of accountability for NGO governance.

Transparency is about making public (disclosure of) relevant information. The results of studies on the relationship between transparency and donations in the context of the third sector are not consensual. Some studies have not identified a correlation between receiving donations and transparency (eg. Haski-Levanthal & Foot, 2016; Waniak-Michalak & Zarzycka, 2012). On the other hand, other studies have identified a positive association between transparency and donations (eg. Saxton & Guo, 2011; van der Heijden, 2013).

In the Brazilian context, there is the same impasse, with the aggravating factor that there is less empirical evidence. Dall’Agnol, Tondolo, Tondolo and Sarquis (2017) identified that transparency actions contribute to raising donations. On the other hand, Santos, Ohayon and Pimenta (2017) did not identify a positive association between donation revenues and the disclosure index via the website.

This study, in turn, reinforces the understanding that the volume of donations received is positively affected by the level of disclosure, in contrast to the understanding that donors are not concerned with disclosure information when making donations.

Audit was empirically measured by the performance of an independent audit of the financial statements and the auditing company being one of the big six. The independent audit firm issues an opinion on the NGO’s financial statements, taking a stand on relevant errors and distortions in accordance with current regulations.

The results indicate that the audit report can mitigate agency costs by providing donors with greater assurance that NGO information is reliable. Thus, donors may understand the audit report as an external oversight measure that improves internal controls and the quality of NGO financial reporting (Harris et al., 2015).

With respect to audit quality, company size is a common measure of quality both in studies of business organizations (eg. Marques, Louzada, Amaral & Souza, 2018) and non-profit (eg. Yetman & Yetman, 2012). There are substantially fewer studies in the nonprofit environment, but some evidence suggests an inverse relationship between auditor size and internal control issues (eg Petrovits, Shakespeare & Shih, 2011), and a positive relationship with the accuracy of financial information (eg Yetman & Yetman, 2012) and receiving donations (eg Lee & Choi, 2019). Kitching (2009), in turn, identified a positive association between the use of a Big 5 auditor by NGOs and donations received.

Audit-related aspects, then, provide donors with more assurance about the reliability of the NGO’s accounting and financial information and that donations are safeguarded. The presence of independent auditors can thus represent an additional line of defense in the interest of the principal.

It should be noted that in the study by Harris et al. (2015), carried out in a sample of 10,840 North American NGOs, seven dimensions of governance (board, management, policies, access, audit, executive compensation and minutes) were identified through factor analysis, six of them with statistically significant relationships with the total donations (only the dimension minutes was not statistically significant).

The difference in the results of this study with those of Harris et al. (2015) can reside in the ambience. In the United States there is an environment of strong regulation and high transparency, while in Brazil there is an environment of low regulation and low transparency (Silveira, 2010).

An example of this is that the data used in that research, coming from Form 990, can be accessed by private institutions; while in Brazil, initiatives in this regard (e.g. Map of OS) are still embryonic and, perhaps for this reason, the data still show inconsistencies.
Next, to verify the statistical power of the regression, the effect size was initially calculated. According to Cohen’s (2003) classification criteria for regression, the effect size is considered large ($f^2 = 1.26 > 0.35$). Unfortunately, it is not possible to compare the average effectiveness of the model developed in this study, in the light of its area of investigation, which gave practical meaning to the effect size, as the effect size was not presented in the investigated studies. Then, assuming a significance level of 0.036 (the highest reached in this study), the statistical power was approximately 0.999.

As for the reach of the results, the adjusted $R^2$ reveals little loss in predictive power when compared to the $R^2$ (0.536 and 0.558, respectively – see Table 6), which suggests that there was no over-adjustment. In addition, regression with bootstrapping (5,000 subsamples) was carried out, in which the model presented convergent coefficients in terms of statistical significance (variation < 10%), confirming that the model is not overfitted to the data set used.

For all of this, it can be considered that the results are not specific to the sample, even if it was not possible, due to a limitation in the data set, to partition the sample into an analysis and test sample in order to carry out direct validation by the evaluation of matching results from another sample of the population.

5 CONCLUSIONS AND LIMITATIONS

This study has implications for both NGO executives and policy makers and researchers. Few previous studies have examined the joint influence of various dimensions of governance present in the organizational structure of NGOs in receiving donation (e.g. Harris et al., 2015).

The study’s findings suggest that poor governance quality can reduce the volume of donations, as donors seem to consider governance attributes in their decisions, especially those related to the Management, Accountability, Transparency and Audit dimensions.

This aspect is important not only for professionals in the area, but it is also relevant for the debate on public policies in the third sector, as it indicates that donors could make use of information on the governance of NGOs if it were better publicized.

Although it cannot be refuted, based on the study’s evidence, that a voluntary disclosure regime may be preferable to a mandatory regime for information on the governance of NGOs, in particular those relating to non-mandatory mechanisms, such as independent audit, policies and codes, etc., were shown to be related to donations received by these organizations.

First, it can be highlighted that the identification of a set of governance dimensions for NGOs in an environment of low regulation and little access to information, similar to what was done by Harris et al. (2015) for the non-profit environment with high regulation and transparency, is a first step in developing a parsimonious measurement for the NGO governance construct, which can help future research on governance in the third sector.

In addition, the findings of the study reinforce the field of agency theory, as they show that governance contributes to NGOs having privileged access to the donation market: either by the expectation of more efficient operations (executed in the best way that resources allow), effective (fulfilling the determined objective) and active (meeting the purposes of the donation) (Greiling & Stötzer, 2015), which contributes to improving the NGO’s reputation in the factor and product markets (Jensen, 1993); or by reducing information asymmetry.
Thus, governance contributes to the perception of donors (principal) that the donated resources will be applied by the NGOs (agent) in a way that is more aligned with their interests (alleviating agency problems).

However, the results of this study should not be interpreted as definitive evidence that all NGOs should adopt all of the governance practices analyzed. Although for professionals it can be useful to design a guide to guide their efforts for better fundraising results, as it provides empirical support for the positive impact of governance dimensions on the receipt of linked donations.

Furthermore, it is registered that the results do not indicate that the dimensions that were not statistically significant with the receipt of donations are irrelevant. This can be explained by overlaps between dimensions that would inflate the explanatory power of the model if all dimensions remained in the model.

That is, the absence of a statistically significant relationship in relation to the Board of Directors dimension (which appeared as a candidate for the regression model in the correlation analysis) does not refute that donors may understand that the control exercised by the Board of Directors contributes to their donations are used for the purpose and terms of the instrument of giving.

Hasnan, Mohamad, Zainuddin & Abidin (2016), for example, when analyzing specific measures of the Board of Directors (e.g. board size and frequency of board meetings) identified a positive relationship with donations received.

The lack of relationship in the results of this study may be associated with aspects of the Board of Directors present in other dimensions (such as Management and Accountability, which made up the final regression model and with which the Board of Directors had the highest correlations), so that the Board of Directors dimension did not contribute to increase the accuracy of the model.

Likewise in relation to the Fiscal Council. Because it has a non-deliberative role in its oversight of administrative acts, and for issuing an opinion on the ex-post financial statements (Bortolon, Silva & Barros, 2019), in the presence of an independent auditor, it is possible that the effects of the Fiscal Council have been shadowed by the influence of the audit.

Important caveats regarding the study results should be highlighted. First, there may be differences between the same governance mechanisms present in different NGOs, and also between what is promulgated in the NGO’s documents and its practices, as only the presence of governance mechanisms in the organizational structure of the NGOs was assessed.

Second, due to the limitation of the data set, a pure cross-section was adopted, so that it was not possible to measure the effects of governance over time, which would be minimized using panel data.

Third, the sample composed of environmental NGOs operating in Brazil, despite favoring a more homogeneous research cutout, may limit the generalization of the results to other environments, since, as evidenced by Yetman & Yetman, (2012), different milestones regulatory and law enforcement environments can influence NGO governance.

Fourth, as we did not have access to the explanatory notes of all the Financial Statements analyzed, it was not possible to distinguish private from public donors or individuals from legal entities. As different types of donors may have different motivations for donation (Bekkers & Wiepking, 2011) and may consider different elements for decision making about donation (Lee, 2016), it cannot be ruled out that the type of donor may influence the relationship between governance and giving.
These limitations are useful for the methodological planning of future research, especially in relation to the type and time span of the data used. Furthermore, they point to a research agenda related both to the environment of NGOs, resulting from different legal nature (associations or foundations) and fields of action (eg health, education, etc.); regarding the type of donor (private or public).

Reflecting on the results of this study, it is noteworthy that in a fierce donation market (Arvidson & Lyon, 2014; Lacruz, 2020) it is essential that NGOs can institute mechanisms to attract donors; once for these organizations to develop their institutional missions and achieve their goals, they need to raise funds.

Furthermore, recognizing that NGOs have worked to convince policy makers that they can address their own shortcomings without burdensome regulations, the non-profit sector must pay attention to the issue of governance. The evidence from this study is consistent with the notion that improving governance minimizes agency problems and, consequently, makes NGOs more attractive in the donation market.

Finally, the study, in a context different from where most of the studies were carried out, contributes to a better understanding of the theory. By using a database from a different environment (of low regulation and low accessibility of information about NGO governance), relationships were revealed that complement the generalities of the theory, contributing to a better judgment of its general validity.

REFERENCES


