The Relationship Between Efficiency, Stability, and Reputation in Fundraising and Generation of Resources in the Third Sector Institutions

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ABSTRACT
The purpose of this study is to verify if the efficiency, stability, and reputation are factors capable of impacting fundraising and resource generation of nonprofit institutions, bearers of the Federal Public Utility Title. Data was collected from the National Register of Public Utility Entities of the Ministry of Justice, a database developed by the Brazilian Ministry of Justice in which nonprofit organizations file their financial statements. The analysis comprised the available data, from 2010 to 2014. Results indicate that fundraising and generation of resources are significantly influenced by efficiency, stability, and reputation factors. The findings highlight the relevance of disclosing financial information in generating and attracting funds from these institutions.

Keywords: Third Sector, Donation, Fundraising, Efficiency, Reputation.

Introduction
The literature about the factors that determine fundraising (Cruz, Corrar, & Slomski 2008) and the application of resources (Cruz, 2010) is scarce in Brazil (Cunha & Matias-Pereira, 2012). Thus, the purpose of this paper is to verify if the efficiency, stability, and reputation, measured by the analysis of accounting information, are factors able to impact the raising and generation of resources of nonprofit institutions, therefore extending the findings presented by Cunha and Matias-Pereira (2012). The relevance of this study is related to the importance of institutions that aim to promote social welfare (ABONG, 2014). Accounting information is considered essential for accomplishing our empirical analyses because it
allows the estimation of indicators to represent efficiency, stability, and reputation. Thus, our goal is also to show how accounting information is indirectly linked to fundraising and generation. Efficiency is understood as to how the funds raised are used to achieve institutional objectives (Tinkelman & Mankaney, 2007). Stability represents the organization’s ability to continue operating in economic crisis scenarios. Reputation is seen as a reflection of the acceptability and reliability of services and social actions developed by institutions (Trussel & Parsons, 2007). We collect data from the Ministry of Justice’s Accountability System, known as CNEs/MJ, from 2010 to 2014. We apply a factor analysis, based on accounting information, in order to estimate the three factors. Our empirical findings indicate that efficiency, stability, and reputation are factors that significantly affect fundraising and generation.

Our paper contributes to providing empirical evidence that could contribute to organizations operating in the Third Sector to attract and generate resources. The study also contributes to insights so that third sector institutions can try to increase their revenues from donors. It is worth mentioning that the research contribution also lies in the fact that research on the topic is scarce in Brazil due to the limited availability and access to data.

Literature review
The concepts and definitions used in this study are based on Trussel and Parsons’s work (2007), focused on nonprofit organizations.

Efficiency factor
Trussel and Parsons (2007) define efficiency as the program to which institutions direct their financial availability to the organization’s mission. Parsons (2003) suggests that efficiency in Third Sector Organizations can be defined as the degree of direction given to the resources available to fulfill their mission. To measure efficiency, researchers use three proxies: price (PRICE), fee with programs (PROG), an administrative fee (ADMIN), all widely explored in the prior literature (Weisbrod & Dominguez,1986; Frumkin & Kim, 2001; Marcuello & Salas, 2001; Marudas & Jacobs, 2004; Trussel & Parsons, 2007; Jacobs & Marudas, 2009).

Price (PRICE) is the variable that can influence the donor when choosing a nonprofit entity because it represents the average portion of each contribution that reaches the Organization’s benefits. The program fee (PROG) is viewed by Trussel and Parsons (2007) as the reverse of PRICE, as it represents the percentage of program expenses concerning the institution’s total expenses. Baber, Roberts, and Visvanathan (2001) and Roberts (2003), use the metric as an alternative to the PRICE variable. Finally, PROG is a measure normally used in the evaluation of Charities, but it is also applied to evaluate the efficiency of nonprofit managers who experience changes in the volume of funds received (Baber, ROBERTS, & Visvanathan, 2001; Roberts, 2003). According to the literature, the relationship between PROG and PRICE with donations is expected to be negative. The other variable that contributes to measuring the efficiency of the institution is the administrative fee (ADMIN) is the measure that corresponds to the percentage of total administrative expenses concerning the total expenses of the institution.
Stability factor
Stability is defined as the nonprofit institution’s ability to continue its operations when facing resource constraints. Donors expect to know whether the organization can continue operating in the future (Trussel & Parsons, 2007). The first variable presented to measure stability is the adequacy of shareholder’s equity (EQUITY), calculated by the ratio between net assets and total revenues. This relationship provides a measure of the number of periods that a nonprofit’s revenue is currently available.

The second variable is the concentration of revenue (CONCEN), which consists of the degree of concentration of revenue in relation to its sources. According to Trussel and Parsons (2007), an entity with the fewest sources of funds tends to be more susceptible to financial upheavals than an entity with the largest number of sources.

The next measure is the operating margin (MARGIN), which is calculated by the difference between income and expenses, divided by income ((income - expenses) / income). It is a measure that shows that the institution will hardly be shaken economically and will go through peacefully through eventual crises or unexpected financial restrictions (Trussel & Parsons, 2007).

Factor availability and quality of information
The availability and quality of information refer to variables that reflect the organization’s ability to keep its potential donors informed about the mission, objectives, and goals and give visibility to information regarding its beneficiaries. Trussel and Parsons (2007) claim that it is difficult to measure the amount of information received by donors directly, but two proxies are typically used: fundraising expenses (FUND) and the fundraising efficiency index (FUNDCONT). Funding expenses (FUND) indicate how much the institution has spent on fundraising and related activities, and demonstrates the level of information availability. Fundraising efficiency (FUNDCONT) is the result of the division of fundraising expenses by contributions obtained, i.e., represents the outcome of all the efforts made by the institution to generate and raise funds (Trussel & Parsons, 2007).

Reputation factor
Reputation reflects the acceptability and reliability for the activities developed or in the services provided by Third Sector organizations. Donors will be willing to contribute to organizations that provide the best service (Trussel & Parsons, 2007). Trussel and Parsons (2007) use five measures that can represent the entity’s reputation: time of existence of the institution (AGE); size (SIZE), measured by total assets; Government Grants (GRANTS), the percentage found between program revenue concerning total revenue (PROGREV); and other sources of revenues (OTHREV).

Previous literature and hypotheses
Studies focused on nonprofit organizations, donations, and accounting data, have been developed since Weisbrod and Dominguez (1986). For example, Callen (1994) explains the cross-sectional variation of cash donations to charitable organizations, showing that price is negatively related to donations. The other variables are positively related to donations.

Trussel and Parsons (2007) identify whether the factors extracted from the accounting reports of nonprofit institutions that could impact the donor’s decision to donate or not.
Their results demonstrate that donations are impacted by efficiency, stability, availability, and quality of information and reputation. In Brazil, several studies have provided empirical evidence on the importance of accounting information and donations to Third Sector Organizations. Among them, we highlight the studies by Cruz, Corrar, and Slomski (2008), that analyze whether the disclosure of accounting information, especially the income statement, impacted on user decisions to donate to the institutions, and if the amount to be donated underwent changes.

Cruz (2010) studied the relevance of accounting information to explain private investments in Third Sector organizations in Brazil, while Cunha and Matias-Pereira (2012) explored to what extent the information released by the nonprofit institutions would allow the identification of factors such as efficiency, stability, and reputation.

Based on the prior literature that indicates the relevance of accounting information (Cruz, 2010; Cunha & Matias-Pereira, 2012), we test the relationship between efficiency, stability, and reputation factors with the ability to impact the funding and generation of resources of Third Sector Institutions.

The first hypothesis proposes whether the factors are related to the volume of donations:

\[ H1: \] The factors of efficiency, stability, and reputation are related to the volume of Donations.

The second hypothesis verifies whether the factors are related to the raising and generation of the institutions’ own resources:

\[ H2: \] The factors of efficiency, stability, and reputation are related to the volume of Own Resources.

Finally, the third hypothesis focuses on the relation between the factors and fundraising.

\[ H3: \] The factors of efficiency, stability, and reputation are related to the volume of Fundraising.

We present our models and procedures in the next section.

**Methodology**

We apply a factor analysis in this study (Trussel & Parsons, 2007) to group variables into three factors. Regarding the procedures, variables were collected from the financial statements and other reports of the Institution’s Accountability, available on the CNEs/MJ (National Register of Social Entities/Justice Mystery) system platform. The population corresponds to all entities that had an active registration, between 2010 and 2014, at CNEs/MJ and qualified as UPF (Federal Public Utility) or as OSCIP (Civil Society Organization of Public Interest). We present the number of institutions, by year, on Table 1, below:

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>4,648</td>
</tr>
<tr>
<td>2011</td>
<td>4,395</td>
</tr>
<tr>
<td>2012</td>
<td>5,128</td>
</tr>
<tr>
<td>2013</td>
<td>3,972</td>
</tr>
<tr>
<td>2014</td>
<td>1,381</td>
</tr>
</tbody>
</table>

Source: Data - CNES/MJ
The limitation in the number of Institutions per year shown in table 1 results from the submission of accounts until April 30. The amount of data available, especially in 2014, was impaired due to the availability and operation of the system, which took place until the beginning of April 2015; shortly afterward, the system went into maintenance and then was deactivated. We reinforce that the data were extracted from the accountability system platform available at the link: https://mapaosc.ipea.gov.br/base-dados.html.

The information provided to the CNEs/MJ, through the submission of accounts, is composed of: (i) entity data, such as identification, purposes, target audience, bylaws, management, human resources, among others; (ii) detailed information about the activities developed; (iii) information on the social insertion of the organization; and (iv) accounting statement, which includes information from the Institutions’ financial statements, prepared in accordance with Brazilian accounting standards.

Variables and model
The explanatory variables based on the theoretical framework are formed by efficiency, stability, and reputation. We emphasize that the factor of availability and quality of information cannot be used in this research because the data in the CNEs/MJ system did not have enough information for the calculation and measurement of the proxies that make up the factor.

Where:

**Efficiency** is represented by the following variables:

- **PRICE**: Total Expenses/Program Expenses
- **PROG**: Program Expenses/Total Expenses
- **ADMIN**: Administrative costs / Total Expenditure

**Stability** is represented by the following variables:

- **CONCEN**: \( \Sigma [(\text{Source\_revenue})]^2 / \text{Total\_revenue} \)
- **EQUITY**: Net Assets/Total Revenue
- **MARGIN**: \( (\text{Total revenue} – \text{Total Expenditure})/\text{Total revenue} \)

**Reputation** is represented by the following variables:

- **AGE**: number of years Existence from tax exemption
- **SIZE**: Total Assets
- **GRANTS**: Government Aid + Indirect Contributions
- **PROGREV**: Program Revenue
- **OTHREV**: Total revenue – Direct Contributions – Indirect Contributions – Government Aid – Program Revenue)

The variables of interest are: **DOA** = Donations corresponds to the total donations received by the institution. The second variable is **Own resources** = sum of all revenues from services, marketing, and the institution’s assets. Finally, we test the variable **Fundraising**, which corresponds to the sum of all the institution’s efforts to provide its sustainability.
We use three models to test the hypotheses presented, the first one developed by Trussel and Parsons (2007), the second adapted. The relationship between Own Resources and efficiency, stability, and reputation factors was analyzed. The third model analyzes the relationship of the fundraising variable, composed of all the efforts that the institution makes to provide its sustainability with the factors. The proposed models are:

**Model 1:**
\[
DOA_{it} = \beta_0 + \beta_1 \text{EFFICIENCY}_{i(t-1)} + \beta_2 \text{STABILITY}_{i(t-1)} + \beta_3 \text{REPUTATION}_{i(t-1)} + \varepsilon_{i(t-1)}
\]

**Model 2:**
\[
\text{OWN RESOURCES}_{it} = \beta_0 + \beta_1 \text{EFFICIENCY}_{i(t-1)} + \beta_2 \text{STABILITY}_{i(t-1)} + \beta_3 \text{REPUTATION}_{i(t-1)} + \varepsilon_{i(t-1)}
\]

**Model 3:**
\[
\text{FUND-RAISING}_{it} = \beta_0 + \beta_1 \text{EFFICIENCY}_{i(t-1)} + \beta_2 \text{STABILITY}_{i(t-1)} + \beta_3 \text{REPUTATION}_{i(t-1)} + \varepsilon_{i(t-1)}
\]

**Analysis of results**
This section presents the results and discussion.

**Factor analysis**
Factor analysis aims to reduce the number of variables into smaller groups (Hair Júnior et al., 2009). We performed the KMO test (0.507, significant at 99%), and none of the variables have correlations above 0.5, indicating that the model is acceptable. We present our results for the factor analysis in Table 2, below:

<table>
<thead>
<tr>
<th></th>
<th>STABILITY</th>
<th>EFFICIENCY</th>
<th>REPUTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PROG</strong></td>
<td>-.010</td>
<td>-927</td>
<td>-.024</td>
</tr>
<tr>
<td><strong>ADMIN</strong></td>
<td>.015</td>
<td>928</td>
<td>-.023</td>
</tr>
<tr>
<td><strong>CONCEN</strong></td>
<td>.133</td>
<td>.057</td>
<td>-.016</td>
</tr>
<tr>
<td><strong>EQUITY</strong></td>
<td>.941</td>
<td>-.009</td>
<td>.011</td>
</tr>
<tr>
<td><strong>MARGIN</strong></td>
<td>-.932</td>
<td>.019</td>
<td>-.015</td>
</tr>
<tr>
<td><strong>GRANTS</strong></td>
<td>-.012</td>
<td>.014</td>
<td>769</td>
</tr>
<tr>
<td><strong>PROGREV</strong></td>
<td>-.013</td>
<td>.009</td>
<td>.587</td>
</tr>
<tr>
<td><strong>OTHREV</strong></td>
<td>-.013</td>
<td>-.034</td>
<td>804</td>
</tr>
<tr>
<td><strong>SIZE</strong></td>
<td>.116</td>
<td>-.019</td>
<td>-.001</td>
</tr>
</tbody>
</table>

% Variance explained: 19.8 | 19.2 | 17.6

Source: Research Data CNEs/MJ

Results presented in Table 2 allow us to observe that the grouping of variables follows the constructs suggested by the literature. They show that 56.6% of the variation is explained by the variables: **PROG** and **ADMIN**, which form the construct “efficiency.” **EQUITY** and **MARGIN**, that form the construct “stability.” Finally, variables **GRANTS**, **PROGREVE**, and **OTHREV**, that form the construct “reputation.” We also identify that the variables **CONCEM** and **SIZE** have no significant correlation with the other variables. Accordingly, we excluded these two variables.
After excluding the variables CONCEM and SIZE, we again ran another factor analysis by applying a varimax rotation to minimize the effects of a variable having high factor loadings on all factors, making their choice of allocation difficult. The expected values for KMO tests are between 0.5 and 1, and Bartlett’s $p$ is lower than 0.5 (all significant at 99%). The results are shown in Table 3, below:

**Table 3. Factor analysis – after the exclusion of the size and CONCEN variables**

<table>
<thead>
<tr>
<th></th>
<th>STABILITY</th>
<th>EFFICIENCY</th>
<th>REPUTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROG</td>
<td>-.002</td>
<td>-0.928</td>
<td>-.022</td>
</tr>
<tr>
<td>ADMIN</td>
<td>-.002</td>
<td>0.928</td>
<td>-.025</td>
</tr>
<tr>
<td>EQUITY</td>
<td>-0.941</td>
<td>0.005</td>
<td>-.004</td>
</tr>
<tr>
<td>MARGIN</td>
<td>0.941</td>
<td>0.005</td>
<td>0.001</td>
</tr>
<tr>
<td>GRANTS</td>
<td>0.000</td>
<td>0.015</td>
<td>0.769</td>
</tr>
<tr>
<td>PROGREV</td>
<td>0.003</td>
<td>0.010</td>
<td>0.587</td>
</tr>
<tr>
<td>OTHREV</td>
<td>0.001</td>
<td>-0.033</td>
<td>0.805</td>
</tr>
</tbody>
</table>

% explained variance

|        | 25.3      | 24.6      | 22.6 |

Source: Research Data CNEs/MJ

When performing the adjustment, the explanation of the total variation of the three constructs, which in the previous table was 56.6%, rose to 72.5%. Results confirm the evidence found by Trussel and Parsons (2007) that the factors of efficiency, stability, and reputation can significantly explain the fundraising and generation of resources in the Third Sector institutions.

Results also indicate potential indicators that could guide actions aimed at optimizing the generation and fundraising. Actions that will imply the improvement of accounting practices and the quality of information that reflect the factors, which need to be increasingly transparent and reliable, making room for accounting professionals to have their relevance highlighted, becoming active agents in the fundraising and generation process.

**Regressions**

We first present results for Model 1, testing the relation between each factor and the volume of donations. We present the results in Table 4 below:

Model 1: $DOA_t = \beta_0 + \beta_1 EFFICIENCY + \beta_2 STABILITY + \beta_3 REPUTATION + \xi$

The results are shown in Table 4.

**Table 4. Model 1 – Coefficients of regression**

<table>
<thead>
<tr>
<th></th>
<th>Coefficients</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>11.45</td>
<td>540.528</td>
<td>.000</td>
</tr>
<tr>
<td>STABILITY</td>
<td>0.38</td>
<td>3.128</td>
<td>.002</td>
</tr>
<tr>
<td>EFFICIENCY</td>
<td>-0.01</td>
<td>-0.400</td>
<td>.689</td>
</tr>
<tr>
<td>REPUTATION</td>
<td>0.33</td>
<td>17.154</td>
<td>.000</td>
</tr>
</tbody>
</table>

Dependent Variable: DOA; F STAT = 0.000; $R^2 = 3\%$
According to the results, “stability” and “reputation” present a positive and significant relationship with the volume of donations (both coefficients are positive and significant at the one-percent level). However, we do not find a significant relationship with the “efficiency” factor. Our results contrast those from the prior literature. Trussel and Parsons (2007) observe that all three factors (efficiency, stability, and reputation) are significant. Thus, the first hypothesis (H1) can only be partially confirmed.

Results reinforce the need for Third Sector institutions to better understand the behavior and interest of donors concerning accounting information, which are fundamental for the analysis and choice of donors. We also note that donors care about how the institution develops and manages its activities through the “stability” factor, especially for the “Equity and Margin” indicators, as they are also interested in how the organization provides its sustainability for the indicators that represent the “reputation.” We then analyze the relationship between the factors and the ability of organizations to raise their resources. We present the results in Table 5.

Table 5. Model 2 – Coefficients of regression

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>11.73</td>
<td>433.084</td>
</tr>
<tr>
<td>STABILITY</td>
<td>0.21</td>
<td>5.128</td>
</tr>
<tr>
<td>EFFICIENCY</td>
<td>-0.08</td>
<td>-2.819</td>
</tr>
<tr>
<td>REPUTATION</td>
<td>0.98</td>
<td>40.230</td>
</tr>
</tbody>
</table>

Dependent Variable: OWN RESOURCES; F STAT = 0.000; R² = 10.6%
Source: Research Data CNEs/MJ

According to the results presented in Table 5, all three factors are relevant (all coefficients are significant at the one-percent level). The sign for efficiency is negative, what is expected since the definition applied in this study is related to how representative of ‘program expenses’ is concerning the main objective of the institution. Thus, we do not apply the perspective used in the private sector, which implies that being efficient means carrying out activities with the fewest possible resources.

Hypothesis (H2) is confirmed because it is possible to infer that the efficiency, stability, and reputation factors impact the generation of their resources. Findings indicate that Third Sector Institutions could direct their efforts to pursue their development and sustainability, opening wider possibilities through actions linked to factors (efficiency, stability, and reputation). It will be possible to strengthen the institution’s capacity to generate its resources.

We present results for Model 3, that explores the relation between the factors and fundraising, in Table 6.

Table 6. Model 3 – coefficients of the regression

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>13.92</td>
<td>926.690</td>
</tr>
<tr>
<td>STABILITY</td>
<td>0.49</td>
<td>9.705</td>
</tr>
<tr>
<td>EFFICIENCY</td>
<td>-0.18</td>
<td>-11.962</td>
</tr>
<tr>
<td>REPUTATION</td>
<td>0.83</td>
<td>55.564</td>
</tr>
</tbody>
</table>

Dependent Variable: FUNDRAISING; F STAT = 0.000; R² = 10.6%
Source: Research Data CNEs/MJ
Model 3 proposes an analysis of the impact of efficiency, stability, and reputation on the revenues earned by the institutions. Results indicate that all three factors are related to fundraising (all coefficients are significant at the one-percent level). We find that stability and reputation are positively related to revenues, whereas efficiency is negatively related. Taken together, empirical findings reinforce that the concept of efficiency for the third sector differs from the concept applied to the first sector (government) and the second sector (companies/market) as previously exposed.

Our results for the three models are consistent with the expectations of the prior literature. We summarize them in Table 7.

Table 7. Statement of expected and obtained results

<table>
<thead>
<tr>
<th>Explanatory variables</th>
<th>Proxies</th>
<th>Expected relationships</th>
<th>Found relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency</td>
<td>ADMIN</td>
<td>Significant</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>PROG</td>
<td>Negative</td>
<td>Negative</td>
</tr>
<tr>
<td>Stability</td>
<td>EQUITY</td>
<td>Significant</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>MARGIN</td>
<td>Positive</td>
<td>Positive</td>
</tr>
<tr>
<td>Reputation</td>
<td>GRANTS</td>
<td>Significant</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>PROGREV</td>
<td>Positive</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>OTHREV</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research Data CNEs/MJ

Taken together, our empirical evidence indicates that the three factors can be determinant for organizations in the Third Sector, contributing to the development of control and managerial mechanisms that could help them in their fundraising activities.

Conclusions

Based on previous studies, we hypothesize that efficiency, stability, and reputation are factors that are related to fundraising and the generation of resources of nonprofit institutions. Based on our results, we suggest that Third Sector organizations implement strategies to monitor and optimize their ability to attract and generate resources by adopting techniques and tools that promote operational, technical, and financial developments.

We suggest future research to analyze the factors and variables that were not possible to perform the calculation and analysis in our study. Future research may use information referring to data organized by the terms of the ordinance August 15, 2017, which deals with the obligation of the Institutions that own CEBAS – Social Assistance Charity Certificate, forward their installments accounts and financial statements. Finally, for a more comprehensive analysis, research may be developed on other aspects that may impact the performance, capture, and generation of resources of organizations.

References


