Tax Evasion Analysis: Perceptions from Brazilian Businessmen

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Abstract
The survey sought to identify, in Brazilian businessmen, which perceptions influence the practice of tax evasion. Considering the limitations that prevented the search application throughout the national territory, the study was developed in two States with obvious differences in cultural, historical, demographic, geographical and economic aspects. The aim was verify that, despite these differences, the perceptions of entrepreneurs were similar. Questionnaires were applied at 240 enterprises of Santa Catarina and of Ceará, gazing micro, small, medium and large enterprises, industrial and commercial/services activities. For characterization of sample, data passed by descriptive statistical treatment. Inferential treatment was carried out using factorial analysis, analysis of variance and multiple linear regressions with stepwise option. The treatment leads to the conclusion that there are significant and widespread agreement with the statements that justify the practice of tax evasion; there is no significant difference in perception about the factors that influence the practice of tax evasion, whatever the segmentation made for entrepreneurs consulted (geographical location, size of company or industry); this practice is seen more as a strategic resource, either because it represents improvement of competitiveness (costs reduction), either because it is considered advantageous cost/benefit analysis.

Key Words: Tax Evasion, Brazilian Businessmen Perception, Strategy and Competitiveness

1. Introduction
According to Lopes (2006) many companies go beyond what is allowed by the fiscal law, using sometimes illegal ways in order to reduce taxation. This behaviour can be frequently observed and is disseminated among private business managers in Brazil. Comments about these practices are common, made by specialized journalists (Gaspari, 2004; Gradilone & Napolitano, 2004; Lahóz, 2004; Salomão & Napolitano, 2005), by technical researchers (Nilson, 2004, Rodrigues Júnior & Melo, 1999), and also by academics (Abramo, 2004; Grybovsky &Hahn, 2005; Neri, 2004; Sequeira & Ramos, 2005; Souza, 2002).

Lopes (2006) and the above mentioned authors have raised several possible explanations for this phenomenon in Brazil, among them sociological and moral issues, business strategies and a hidden tendency to marginal conduct. Given the variety of possible explanations and the lack of empirical research about this subject, it is of relevance to find out the main reasons for the tax evasion behaviour of the Brazilian managers.
Besides that it is also of interest to analyse the Brazilian manager’s appraisal of the country tax system and the influence of their perception in their tendency to disregard their tax obligation. In the assessment of the Brazilian tax system, it is analysed the manager’s understanding of the relationship between tax evasion, surveillance and business competitiveness and the possible use by them of the cost/benefit analysis to decide for the illegitimate tax practices.

In addition, are also examined the evaluation of an adequate tax amount, the equity of the tax system and the relationship between the Brazilian treasury and the tax payer, and finally the comprehension between the managerial qualities required by the legislation and the destination of the funds collected by the treasury. In short, the purpose of this research is to analyse if the arguments found in the literature are capable to explain the utilization of tax evasion, and to legitimate this practice as a legitimate part of the Brazilian companies’ strategic orientation.

To deal with these questions a survey was done with the application of a prearranged questionnaire on a random sample of 240 firms, of different sizes, of the states of Ceará and Santa Catarina, which have different history, culture, ethnical profile, and economical development stages. Factorial and variance analysis, as well as multiple regression analysis, were used to uncover the main explanations that drive tax evasion. The fundamentals and results of this research are presented along de following five sections, besides this introduction. The next section describes the major theoretical contributions that support the study hypothesis.

Section 3 presents the methodological aspects of the research - the sample, the data and the mathematical formulation of the model and the reasoning for its use. In section 4, the results of the proposed model are showed and the model validation is discussed. In section 5, the hypotheses are tested, analyzed and discussed. Finally, in Section 6, the main conclusions and their implications for management theory and managerial practices are presented.

2. Reasons for Tax Evasion

The tributary system in Brazil is ruled by the Federal Constitution and, more precisely, by the National Tributary Code (Law No. 5172 of October 25th, 1966). The main characteristics of this system are: i) three categories of competences for taxation - Federal, State and Municipal, and ii) great dependence of the system’s tax collection on the information provided by the tax payer. Even though this information may be susceptible of verification by the fiscal authorities, through the examination of the accounting books, this feature makes the option for tax evasion easier.

The features of the Brazilian tax system, such as above, and other factors that contribute to the decision between tax compliance and tax evasion has deserved attention of the literature, but most studies has focused on explaining the high levels of tax compliance. The lines of research found in the literature were classified by Trivedi, Shehata & Mestelman (2005) in two categories: i) the tax payers use of a cost/benefit analysis for the tax evasion decision making; and ii) the psychological and ethical behaviour of tax payers that interferes in the tax compliance decision.

Belongs to the first of the above categories the classical article of Allingham & Sandmo (1972), where the authors compare the financial gains associated with tax evasion with the eventual financial penalties. In the second group one can find studies that take in consideration the relationship between the moral values of the tax payer and the choices he or she makes regarding the fiscal system. In general, but particularly in the Brazil, it can be remarked the importance, for the rationing of tax evasion, of the growing rate of taxation or the increasing tax burden, parallel to a growing perception of a poor public policy quality and government corruption. In Brazil, the combination of a generalised dissatisfaction with the fiscal system with a widespread perception of a misuse of the amount collected seems to be associated to a diminishing moral cost of practicing tax evasion.

Besides that, still as a consequence of a high tax burden, it is also noticed that this conduct, as illegal as it is, seems to be legitimated by the manager’s argument that there is no alternative but to make this illegal withholding, if one wants its company to be competitive.

In fact, due to globalization, Brazilian businessmen are facing competitors that are not submitted to such a higher taxation or, when this happens, they are compensated by more efficient government, superior infrastructure and public services, less fiscal complexity and bureaucracy, among others benefits generated by government actions.
Therefore the practice of tax evasion seems to be seen by the Brazilians businessmen as a necessary measure to face an increasing globalized market combined with extra costs and inefficiency associated to government interference. In this sense, one can argue that tax evasion by firms can be seen as a strategy for competitiveness, both internal and externally.

Table 1 summarises the main factors that can be related to the tax evasion decision making.

3. Methodology

The sample of this study is a set of 240 Brazilian small and medium companies from the states of Ceará and Santa Catarina, a segment to which belongs a majority of Brazilian enterprises. The companies are equally distributed in the services and manufacturing industries, in both states. A questionnaire was sent to the owner-manager or administrator of the companies of the sample, through the Regional Companies Association, to reinforce the response rate. All the companies surveyed answer the questionnaire. The instrument uses a five-point Likert scale of agreement, ranging from totally disagree (1) to fully agree (5) applied to different tax evasion motives, selected from the literature. For firms’ characterization were used variables such as size and sector activity, also based in the literature recommendation.

Having in consideration the arguments used in the literature to explain tax evasion, the following hypotheses were submitted to test:

H1: There are no significant differences of opinion between the tax evasion perceptions of the businessmen of Ceará and Santa Catarina;
H2: There are no significant differences of opinion between the businessmen of micro/small or medium sized companies;
H3: There are no significant differences of opinion between the businessmen of diverse industries;
H4: All the main arguments found in the literature to explain tax evasion legitimacy are significant.

To reach the research goals different statistical analyses were used. Descriptive analysis was carried out to characterize the study sample. An experimental model with four factors was used to test the first three hypotheses, and an exploratory factor analysis and a multivariate regression analysis were conducted to investigate hypothesis H4.

The mathematical expression for the multifactor analysis design is:

\[ y_{ijk} = \mu + A_i + B_j + C_k + A_iB_j + A_iC_k + B_jC_k + A_iB_jC_k + \epsilon_{ijk}, \]

where \( y_{ijk} \) is the experimental output, represents the filling of legitimacy to practice tax evasion; \( \mu \) the common effect; \( A_i \) (i = 1,2) the state factor; \( B_j \) (j = 1,2) the industry activity effect; \( C_k \) (i = 1,2), the firm’s size effect; \( (A_iB_j), (A_iC_k) \) and \( (B_jC_k) \) the interactive second order effect; \( (A_iB_jC_k) \) the interactive third order effect and \( \epsilon_{ijk} \) the random error.

With the exploratory factor analysis we were able to reduce the number of variables and combine them in factors able to explain the Brazilian businessmen filling of tax evasion legitimacy. In order to check the acceptability of this technique, we used the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett Test of Sphericity. The internal consistency of the scale and the level of consistency between variables were measured by the Cronbach’s alpha reliability analysis.

After retaining the main factors that explain tax evasion legitimacy, a multiple linear regression was used to analyse if the retained factors have a positive or negative significant influence in the explanation of the propensity for tax evasion.

4. Results

4.1 Sample characteristics

The descriptive analysis does not seem to support the hypothesis of tax evasion legitimacy (Table 2). In both states, the percentage of those that ‘disagree completely’ and ‘disagree with restrictions’ represents the majority of the number of responses. In Ceará, 51.5% of the surveyed disagreed while in Santa Catarina this figure was 60%.

The Santa Catarina managers were more assertive and ‘agreed completely’ or ‘agreed with restrictions’ in great proportion than the Ceará respondents (39% against 27%).

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These results, however, cannot be regarded as conclusive, particularly in the case of Ceará where the percentage of those that declare having ‘no opinion’ was high (21.5%), which may reveal a misinformation or excessive caution to answer the survey.

4.2 Tax evasion factors

Based on the multivariate analysis it was possible to reduce the number of variables and to combine them in factors which can explain tax evasion. The result of the Bartlett test confirmed the appropriateness of the factor analysis procedure as used. In all factors, the KMO values were between 0.6 and 0.7, which are acceptable, when compared with the parameters suggested in the literature for this type of analysis (Hair et al., 2005). All the Cronbach’s alphas have values between 0.6 and 0.7, which guarantees the reliability of the psychometric instruments (Gageiro & Pestana, 2005). According to the factor analysis procedures, a four-factor solution was found to explain 64% of the total variance (Table 3). They can be named as:

- Tax evasion as a competitive strategy;
- Tax evasion as a strategy cost/benefit;
- Difficulties to deal with fiscal system;
- Bad impression and lack of trust about the fiscal system.

Regarding to the factor ‘Tax evasion as a competitive strategy’, it can be said that it reveals that the fulfilment of all the fiscal obligations implies loss of competitiveness and puts in dangerous the surveillance of the business; therefore businessmen use tax evasion as a strategy to face competitiveness. The ‘Tax evasion as a strategy cost/benefit’ includes a set of variables that denote the expectations that the tax evasion offsets the cost of an eventual penalty, as well as the difficulties of the treasury to identify and punish the prevaricators. Also, it takes in consideration the idea that customers do not judge unfavourably those who practice tax evasion. Therefore, the results of a cost/benefit analysis together with expected difficulties of the system to deal with the situation and the relative alienation of the customers relatively to those practices, lead businessmen to use tax evasion as a component of cost strategy.

The ‘Difficulties to deal with fiscal system’ factor includes variables that reflect the fillings of the businessmen about the fairness of the fiscal system and the difficulties to work under its rules. This factor underscores an organizational filling that the Brazilian fiscal system is excessive, unfair and treats unequally similar firms and equally firms that should be differentiable. The ‘Bad impression and lack of trust about the fiscal system’ factor reflects a clear image of the lack of trust on the fiscal system, associated with the dissatisfaction with the use of tax payer’s contributions. As such, the organization incurred in tax evasion as a manifestation against the bad utilization of the public funds, and waste of money and effort in the fulfilment of their fiscal obligations due to the complexity of the system.

In short, one can say that all the arguments found in the literature to explain tax evasion legitimacy are significant, but one, namely that tax evasion is also promoted by knowing that others do not fulfil their fiscal obligations. Therefore hypothesis 4 is partially verified.

4.3 Variance analysis

To test the hypothesis described in section 3 we used a multifactorial experiment. Table 4 shows the F values for the main effects and interaction effects. It is shown that the businessmen from different states did not differ regarding to their perception of tax evasion (p-value greater than 0.05), result which support H1.

Companies of diverse sizes and industries don’t have different ideas about tax evasion, result which support H2 and H3.

All interaction effects – State vs Industry, State vs Size, Industry vs Size and State vs Industry vs Size - showed no difference between the businessmen opinions, no matter how they are clustered.

4.4 Multiple regression analysis

After retaining the main factors that explain tax evasion legitimacy, a multiple linear regression was used to examine if the retained factors have a positive or negative significant influence in the explanation of the filling of legitimacy for tax evasion.
The following model was used:

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon, \]

Where

\[ Y = \text{Filling of legitimacy for tax evasion; } \]
\[ X_1 = \text{Factor one: Tax evasion as a competitive strategy; } \]
\[ X_2 = \text{Factor two: Tax evasion as a strategy cost/benefit; } \]
\[ X_3 = \text{Factor three: Difficulties to deal with fiscal system; } \]
\[ X_4 = \text{Factor four: Bad impression and lack of trust about the fiscal system; } \]
\[ \varepsilon = \text{Random error.} \]

Using the step wise procedure and a level of significance of 0.05 for all 240 observations, two factors were retained, (i) factor one - Tax evasion as a competitive strategy and (ii) factor two - Tax evasion as a cost/benefit strategy. The estimated regression is as follows:

\[ Y = 2.583 + 0.414 X_1 + 0.318 X_2 \]

The signs of the coefficient \( \beta_1 \) and \( \beta_2 \) are in accordance with the interpretation given to these factors. Brazilian businessmen fill that tax evasion is considered to be legitimate to assure business competitiveness and use this argument to include tax evasion as a strategic cost component. Their favourable perception of the relationship between the eventuality of being caught and the benefits that they can obtain from tax evasion is the reasoning behind their attitude. Also, since this behaviour is not judged unfavourably by the customers, it does not hurt either their image or market share. Therefore \( H_4 \) was partially rejected, once not all the arguments found in the literature explain tax evasion legitimacy. Bad judgement and bad impression of the fiscal as well as the bureaucracy of the system do not affect significantly the sense of tax evasion legitimacy.

5. Conclusions

Four major conclusions should be highlighted. First, the confirmatory factor analyses suggested the relevance of four motives to explain the tax evasion decision: i) Tax evasion as a competitive strategy; ii) Tax evasion as a strategy cost/benefit; iii) Difficulties to deal with fiscal system; iv) Bad impression and lack of trust about the fiscal system. Second, it was not found support to the difference in the perception of the legitimacy of tax evasion between businessmen of the two states where their companies operates. Third, size and industries differences no matter to this perception too.

Fourth, among those four factors, two were found, by the multivariate analysis, as having a positive significant influence in the tax evasion conduct: Tax evasion as a competitive strategy and Tax evasion as a cost/benefit strategy. In line with the findings in the literature review, this means that businessmen in Brazil tends to found legitimate and integrated to their companies' strategic orientation the tax evasion behaviour. Also important is that these results seems to be valid for companies operates in the whole country, once that it was not found significant difference in the way businessmen in the two states surveyed perceived the legitimacy of the tax evasion.

It should be taking in consideration that these two states have very different levels of development, which suggests that states difference isn't influential factor for diverse thinking regarding to tax evasion. Therefore, faced with increasing levels of competition, and knowing the deficient fiscal control by the authorities, Brazilian businessmen feel compelled to incur in tax evasion practices.

Tax evasion procedures are converted into strategic components in order to compete and survive in the market. Also the alienation by the consumers of this behaviour reinforces this attitude and increases the willingness for tax evasion practices. Although the descriptive analysis shows that, there are more Brazilian businessmen that agree that tax evasion should be consider an illegitimate practice than those who do not, the percentage of those for whom tax evasion is legitimate is sufficiently large to deserve a special attention by the Brazilian fiscal authorities. To a further understanding of this phenomenon, it is suggested that future research examine the relationship between the orientation of the organizational reward system and the executive's attitude towards tax evasion practices.
Table 1: Tax evasion: A synthesis of reasons

<table>
<thead>
<tr>
<th>Reasons for tax evasion</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>The filling that the amount of taxation is fair or excessive in relation to social benefits.</td>
<td>Torgler, 2005.</td>
</tr>
<tr>
<td>The filling that the government does not adequately make use of the collected taxes or does not offer a return in accordance with the amount collected.</td>
<td>Feld and Frey, 2002; Torgler, 2005.</td>
</tr>
<tr>
<td>The filling that the government is not able to calculate and penalised the cases of fiscal fraud.</td>
<td>Allingham and Sandmo, 1972; Chan and Chu, 2002; Crocker and Slemrod, 2005; Snow and Warren, 2005; Laury and Wallace, 2005.</td>
</tr>
<tr>
<td>The difficult of understanding the fiscal system and to deal with its formalities.</td>
<td>Lopes, 2006; Tanzi, 2000.</td>
</tr>
<tr>
<td>The filling of inequity in relation to the treatment given by the fiscal system to others tax payers in identical conditions.</td>
<td>Trivedi, Shehata &amp; Lynn, 2013.</td>
</tr>
<tr>
<td>Social, cultural and institutional context.</td>
<td></td>
</tr>
<tr>
<td>Difficulties in dealing with the fiscals system</td>
<td>Lima, 1999; Feld and Frey, 2002</td>
</tr>
</tbody>
</table>

Table 2: Opinion of the surveyed about tax evasion legitimacy

<table>
<thead>
<tr>
<th>Scale of agreement</th>
<th>% of respondents</th>
<th>Ceará</th>
<th>Santa Catarina</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree completely</td>
<td>16.0</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>Agree with restrictions</td>
<td>11.0</td>
<td>37.5</td>
<td></td>
</tr>
<tr>
<td>No opinion</td>
<td>21.5</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Disagree with restrictions</td>
<td>20.0</td>
<td>36.5</td>
<td></td>
</tr>
<tr>
<td>Disagree completely</td>
<td>31.5</td>
<td>23.5</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 – Factor Analysis Results

<table>
<thead>
<tr>
<th>Variable Component</th>
<th>F1</th>
<th>F2</th>
<th>F3</th>
<th>F4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax evasion as competitive strategy</td>
<td>0.964</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To fulfil all the required tax obligations implies to lose competitiveness</td>
<td>0.768</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax evasion can be a survival strategy</td>
<td>0.703</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To know that others practices tax evasion is a incentive to the own tax evasion</td>
<td>0.600</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax avoidance as cost / benefit strategy</td>
<td>0.994</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is worthwhile to practice tax evasion even facing eventual penalty costs</td>
<td>0.787</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The fiscal system has a weak capacity to identify and punish fraudulent practices</td>
<td>0.684</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customers do not make a bad judgment of those who practice tax evasion</td>
<td>0.607</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The bureaucratization of system promotes tax evasion</td>
<td></td>
<td>0.750</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulties of dealing with tax system</td>
<td></td>
<td>0.733</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The fiscal system does not promote vertical equity</td>
<td></td>
<td>0.683</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax system seems not fair</td>
<td></td>
<td>0.674</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The fiscal system does not promote horizontal equity</td>
<td></td>
<td>0.624</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax payers have a bad impression of tax system</td>
<td></td>
<td></td>
<td>0.891</td>
<td></td>
</tr>
<tr>
<td>The fiscal system promotes informality</td>
<td></td>
<td></td>
<td>0.794</td>
<td></td>
</tr>
<tr>
<td>Tax payers do not trust in the adequate application of the tax resources</td>
<td></td>
<td></td>
<td>0.733</td>
<td></td>
</tr>
<tr>
<td>% of Variance</td>
<td>16.837</td>
<td>16.504</td>
<td>15.875</td>
<td>14.807</td>
</tr>
<tr>
<td>Cumulative % of Variance</td>
<td></td>
<td></td>
<td></td>
<td>64.023</td>
</tr>
</tbody>
</table>

Table 4: Variance analysis

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>F Ratio</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>0.01</td>
<td>0.923</td>
</tr>
<tr>
<td>Industry</td>
<td>1.13</td>
<td>0.290</td>
</tr>
<tr>
<td>Size</td>
<td>1.34</td>
<td>0.248</td>
</tr>
<tr>
<td>State×Industry</td>
<td>2.38</td>
<td>0.124</td>
</tr>
<tr>
<td>State×Size</td>
<td>0.75</td>
<td>0.386</td>
</tr>
<tr>
<td>Industry×Size</td>
<td>3.36</td>
<td>0.068</td>
</tr>
<tr>
<td>State×Industry×Size</td>
<td>0.33</td>
<td>0.563</td>
</tr>
</tbody>
</table>

References


