

Risk Classification as an Incentive to Taxpayers' Compliance

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Managing and improving tax compliance is a main challenge for tax administrations. They seek compliance through monitoring, auditing and punishing penalties. This paper proposes a model based on trustworthy, transparency and incentives. The proposal is a classification of tax liability risk of companies and incentives to consistent compliance behavior. These incentives include simplified monitoring and auditing procedures, and self-regularization options. It can improve companies' reputation, credit access, transparency and align interest with the taxpayers. The theoretical foundations are tax segmentation and compliance models, interorganizational trust and local productive clusters. The article presents the main challenges and opportunities for further research.

INTRODUCTION

According to OECD (2004) "implementing tax policy in an increasingly globalized world is becoming more challenging for tax administrators". The majority of tax administration entities seek to obtain compliance through monitoring, auditing and punishing penalties under a "tax-police" perspective. This creates incentives to taxpayers to withhold information, do not report any mistake (even if it is unintentional) and keep their relationship with tax authorities to the minimum required by law. From an economic point of view any legal way to avoid paying taxes is an opportunity to improve profits and gain competitive advantage (Rego & Wilson, 2012). As the line between aggressive tax planning and fraud schemes becomes narrow, the potential corruption in tax administration increases.

Besides that, in many countries, tax administrations indirectly stimulate non-compliance, by periodically providing taxpayers with tax amnesties programs. According to Baer and La Borgne (2008) successful tax amnesties are exceptions, tax amnesty does not solve weak performance, high delinquency and noncompliance. Those are likely to be resolved only with improvement in tax administration detection and enforcement. Alternatives to tax amnesties are "(1) strengthening the legal framework for tax administration, basic tax administration procedures, and management; and (2) simplifying the tax policy regime while at the same time broadening the tax base and reducing tax rates."

This article proposes to develop a model that incentives tax compliance, simplifies procedures and strengthens the legal framework. The model is based on trust building between taxpayer's and tax administration, transparency to the society and the market; and incentives to comply with tax rules.

Most studies to improve tax administration include taxpayers' segmentation as a core item in their conceptual framework (IMF, 2015; USAID, 2013; Dohrmann & Pinshaw, 2009; OECD, 2004). Going beyond basic segmentation, this proposal has its basis upon a classification of potential exposure to tax liability risk of the companies and their suppliers, and the creation of incentives to consistent compliance behavior. This proposal is consistent with Russell (2010) risk-based verification programs, since it "creates a downside to poor compliance behavior". However, the main innovation is the use of "upsides" – incentives to good behavior. These incentives include a risk classification that could improve companies' reputation and credit access, simplified monitoring and auditing procedures, less bureaucratic procedures to access some specific public services, and self-regularization options. The model also has the potential to incentive the creation of tax compliance value chains of suppliers and local clusters. For the tax administration it diminishes costs, improve transparency and align interest with tax payers.

THEORETICAL FRAMEWORK

The basic theoretical framework includes productive chains and local productive arrangements, taxpayers' segmentation, trust in interorganizational relations and tax compliance best practices.

Productive Chains and Local Productive Arrangements (LPA)

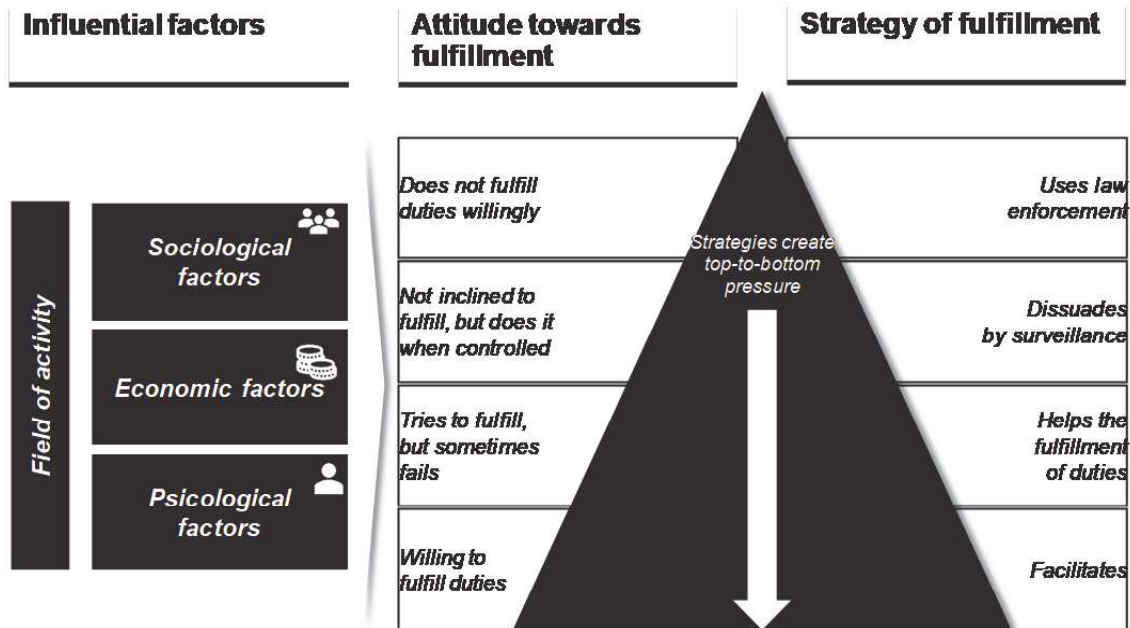
According to Santos and Guarnieri (2000) productive arrangements are a phenomenon linked to the agglomeration economies (clusters), associated with companies linked to each other by flows of goods and services. The arrangements are associated to the physical proximity of companies from a region, state or industrial district, characterizing the LPAs. The arrangements may include companies in the same industry, grouping of suppliers of inputs, machines, materials and industrial services, or having similar technologies or inputs in common. LPAs can also be structured around universities or academic centers that conduct research on the same line or technical basis. Usually they are formed by small and medium-sized companies, but the size can vary according to the productive process and segments of the economy.

The productive arrangement is characterized by the existence of an anchor company, which maintains strong technical, commercial and financial links with a group of enterprises, including suppliers, customers and service providers. The anchor company plays a leading role for a group of micro, small and medium-sized enterprises (MSMEs) that provide products and services. These agglomerations originate from the vertical disintegration of the anchor company, with a marked hierarchy in the interfirm relations. In this case, the suppliers are in a subordinate position and are dependent on the anchor company that defines standards and procedures to be adopted by its value chain. (Santos, Crocco & Lemos, 2002).

Taxpayers Segmentation, Risk Classification and Behavior

Taxpayers segmentation is considered by the IMF (2015) a "key to tailoring enforcement actions and the provision of taxpayers' services". The most common segmentation of taxpayers is by size. Risk based verification programs are becoming more common (Russell, 2010). OECD (2004) proposes that tax administration strategies have to take into account the attitude of taxpayers towards tax fulfilment, as showed in Figure 1.

**FIGURE 1
TAXPAYERS' PROFILES**



Source: Adapted from OECD (2004)

USAID (2013) proposes that effective taxpayers service strategies should be based on five steps: (i) identify the target group (clustered by size and behavior) to identify tax administration priorities, taking into account tax practitioners, tax preparers and other third parties involved in facilitating tax compliance; (ii) determine what taxpayers want, from their perspective, through interviews, surveys and other data collection procedures; (iii) establish an organization culture supportive of taxpayer service, with a mission, vision and goals focused on “revenue” and “service”; (iv) implement a strategic service concept focused on external stakeholders, using communication channels like internet, emails, SMS, interactive kiosks, telephone, letters, mass distribution and outreach activities; (v) implement a strategic service concept focused on internal stakeholders.

There are three basic methods of selecting taxpayers for auditing: manual, random, and risk-based. Risk-based selection mitigates eventual corruption in manual selection and is more cost-effective than random selection, although it is perceived as less fair. Each taxpayer is assigned a score based on attributes such as size, industrial park, compliance history, and other variables identified in previous audit processes. This strategy can have significant IT costs and requires robust, quality databases (Vellutini, 2011).

Some principles used in risk assessment are consistency of values collected with other records (data matching), identification and declared amounts as expenses and credits. The issue of tax credits and checking the chain is especially important in value added taxes (VAT). Statistical techniques are usually used to segment taxpayers based on risk assessment. Parametric techniques, such as linear or logistic regression and discriminant analysis, and non-parametric techniques such as data mining can be used. Other possibilities are the use of decision trees, neural networks and clustering. One of the recurring discussions is whether the score should be public or not. In spite of the fact that disclosure may favor the strategic behavior of companies to only address compliance with the obligations that are part of the score, disclosure of the general criteria is a good practice to stimulate conforming behaviors (Khwaja, Awasthi, & Loeprik, 2011).

There is an optimal level of compliance verification, which can be related to the concept of marginal cost. The implementation of additional controls has costs and these should only be implemented if the

expected marginal revenue is higher than the costs arising from its implementation and application. This analysis should be done not only from the perspective of the Tax Administration, but also from the perspective of the business environment. Segmentation cut-off points are also important to avoid the cost of type I errors (rejection of the null hypothesis if this is true) and type II (acceptance as true of a false hypothesis). It would be the costs to audit a company that is compliant and stop auditing non-compliant companies.

Trust in Interorganizational Relationships

Trust is essential for an effective relationship between organizations. Trust is accepting to be vulnerable to another party, based on the expectation that this party will fulfill its obligations, behave as expected, act and negotiate fairly, especially when an opportunity for opportunistic behavior appears (IMF, 2015; Zaheer, Mcevily & Perrone, 1998).

Repeated interaction in a relationship between parties creates predictability, which is a source of trust (Lewicki & Bunker, 1995). The frequency of communication has a similar role, the greater the frequency, greater the trust (Becerra & Gupta, 2003). The quality of the exchange of information, in terms of details, accuracy and timeliness, influences interorganizational performance (Gulati & Sytch, 2007).

Governance structures for interorganizational relationships can be classified into two perspectives: structural and relational. The structural perspective focus analysis on single transactions, expects partners to behave opportunistically and use complex contracts to prevent this kind of behavior. This perspective is unsuited to long-term relations. The relational perspective, based on social exchange theory uses trust as a governance mechanism (Faems et al., 2008)

Malhotra and Murnighan (2002) investigated the effect of contracts on interpersonal trust and found evidence that the use of binding contracts, enforced by applying penalties and the force of law have negative impacts on trust building. Non-binding contracts lead to cooperation between parties and provide a basis for trust building.

Specifically, when talking about taxes and the reasons that lead contributors to pay its taxes, an analysis over empirical procedures adopted in several countries concluded that it is necessary to build and improve trust relationship between tax administrations and taxpayers to promote transparency and cooperative compliance (OECD, 2009).

Tax Compliance

Many tax administrations seem to treat all taxpayers as potential criminals. The key issues are identifying and controlling taxpayers to catch those cheating. Even acknowledging these tasks importance, problems of tax enforcement cannot be solved simply by calling in the “tax police” (Bird, 2010).

The Tax Administration Diagnostic Assessment Tool (TADAT™), proposes that tax administration performance can be assessed by looking at 9 areas: (i) integrity of registered taxpayer base; (ii) assessment of compliance risk in tax system; (iii) support to voluntary compliance; (iv) filling of returns obligations extent; (v) payment of obligations extent; (vi) accuracy of reporting; (vii) adequacy of tax dispute resolution; (viii) efficiency of tax administration; and (ix) level of accountability and transparency (IMF, 2013).

A tax administration compliance model should satisfy four key components: understanding taxpayer behavior; building community partnerships; increasing flexibility in tax administration operations to encourage and support compliance; and more and escalating regulatory options to enforce compliance (Braithwaite, 2003).

According to the IMF (2016), the elimination of excessive regulation can facilitate economic growth and impede corruption. Market restrictions facilitate rent-seeking activities, especially if government approval is required based on the exercise of discretion by the official who has the authority to grant approval. Therefore, the streamlining of regulatory approval can play an important role where the exercise of discretion is not essential. Computerized processing of documents can strengthen integrity significantly in key areas, such as customs services. Transparency is a prerequisite for proper functioning of the market

and a core component of an effective anti-corruption policy. It also helps to seek an efficient allocation of resources, allows market to evaluate and impose discipline on government policy.

According to Dijk and Siglé (2015) some ways to implement co-operative compliance strategies through taxpayer are improving perceived procedural justice, reducing taxpayer uncertainty and improving tax risk management by taxpayers. This strategy also requires disclosure and transparency. However, there are few academic material about it and further research should focus on empirical testing co-operative compliance strategies.

Other important aspect is establishing a fair treatment, with clear rules to taxpayers. As it was also said by Dijk and Siglé (2015): “tax authorities should make the first move to improve the working relationship. By giving taxpayers consistent, objective and fair treatment, it is expected that taxpayers will reciprocate with improving their own behavior.”

METHODOLOGY

The main research methodology used was theoretical research. According to Demo (2000), this type of research is oriented to reconstruct theories, frames of reference, explanatory conditions of reality, controversies and relevant discussions.

According to Whetten (1989), a theory must: (i) identify the factors that should be considered part of the explanation of the phenomenon under study, constituting its conceptual framework; (ii) establish connections between factors, identifying how they are related; (iii) to point out the dynamics - social, economic or psychological - that base the choice of factors, as well as the causal relations established between them; and (iv) to name the temporal and contextual factors so that the limits of generalization (their extension) are drawn.

To propose this model, we conducted a literature review considering productive chains and local productive arrangements, since this proposal is based on companies and their suppliers compliance; risk classification and behavior score; trust in interorganizational relationships literature, adapting its concept to the fiscal framework that comprises relationships between fiscal authorities and enterprises, and between enterprises in a supply chain, focusing on a relational perspective and restriction to opportunistic behavior; and finally fiscal compliance literature, based on information released by governments, multilateral institutions like OECD, IMF, World Bank, journals and theses.

The implementation section used case study methodology (Yin, 2013), that followed Eisenhardt (1989) recommendations on the construction of theories from case studies. The article uses a qualitative approach and relies on secondary data. This implementation is initially limited to a single state (São Paulo) in Brazil, the implementation steps considered the country context and previous initiatives in Brazil's public sector, since this program uses an innovative risk classification system without similar in the country.

Some limitations of this research include the fact that is a theoretical proposition, that is in its early implementation steps and it is a single case study, focusing on VAT taxes, some adjustments may be necessary to use the model to other taxes and different institutional environments. Besides that, this situation limits the possibility to further test the concepts and hypothesis proposed, which is expected to be done in the next steps of implementation, that would include semi-structured interviews and quantitative test of hypothesis formulated. The next section presents the proposed model.

A NEW PROPOSAL TO SEGMENT TAXPAYERS

The core idea is to construct a rating of taxpayers supported by civil society, academia, government, and taxpayers themselves, in a collaborative approach, following Malhotra and Murnighan (2002) proposal. The benefits of that initiative are:

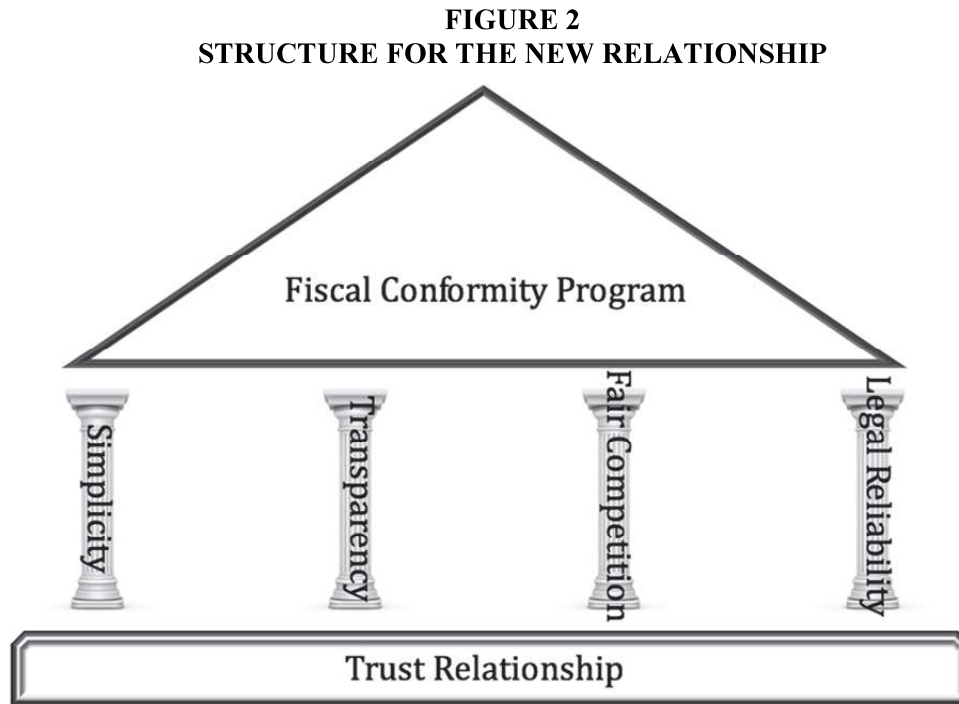
- Decreasing risks of (i) providers' discontinuity; (ii) unintentional tax liabilities; and (iii) credit.
- Increasing of (i) legal reliability; (ii) competitive advantages to taxpayers that are up to date with the Treasury; and (iii) promotion of a supply chain in compliance with the Treasury.

Backbone and Pillars

Aiming to be the most objective as possible, the tributary rating was built under one backbone and four structural pillars, aligned with TADAT (IMF 2013), and OECD recommendations (OECD, 2004).

This model is consistent with Braithwaite (2003) proposal of shifting from reactive law enforcement to proactive risk management, engage in actions that reduce risk at lower cost than direct monitoring and enforcement, use strategies to build trust with taxpayers and stimulate them to seek compliance. To achieve the excellence is necessary to understand taxpayer behavior, build community partnerships, increase tax administration flexibility, and escalate regulatory options to enforce compliance.

The foundation is trust relationship, and the pillars are: simplicity, fair competition, transparency, and legal reliability, as showed in Figure 2.



Source: Prepared by the authors.

Trust Relationship

The proposal intends to modify taxpayers' perceptions by changing the relationship with tax administration to be more collaborative. From this viewpoint, it is important to align interests, following Faems et al. (2008) relational perspective. The approach based on controls and punishment, as it has been used so far, was identified by several studies about tax administration systems as an exhausted model (Bird, 2010).

The backbone of this project is the turning point in the main tax policy strategy – from “tax police” to “tax orientation”, changing the way taxpayers are treated by the administration. To do that, it is fundamental to start a new relation based upon mutual trust and confidence, following Dijk and Siglé (2015) co-operative strategy based on mutual trust.

Providing certainty based on openness, awareness, responsiveness of taxpayers, disclosure and transparency helps to build trust, based on predictability as proposed by (Lewicki & Bunker, 1995). Essentially, the idea is to create all necessary conditions to support a better ambience and stimulate synergy between public and private sectors, as proposed by the (OECD, 2009).

Simplicity

Only three clear and objective criteria are used to segment taxpayers: consistency, compliance and suppliers' compliance. It is the basis to establish seven different segments: A+, A, B, C, D, and E for the rating, and a category for New business that will be classified in six months.

There are several collateral gains when pursuing simplicity. This proposal is consistent with the elimination of excessive regulation and discretionary decision by the administrations, following IMF (2016) recommendations.

Transparency

Similar to the simplicity's pillar, transparency is easy to understand and hard to apply. Several cultural distortions – corruption for instance, exist under the shield of secrecy of tax data. However, as stated by IMF (2016) it provides several collateral gains, especially in resource allocation and supervision.

Although it is common to think only on public sector when we talk about the increasing of transparency, this pillar sustains both sides. It is also imperative that taxpayers make their transactions more visible and comprehensible as proposed by Dijk and Siglé (2015).

Fair Competition

The logic is to classify and give different treatments for each group of contributors. This new segmentation helps to organize the way how the administration deals with different behavioral layers of contributors. It will allow concentrating efforts in contributors who plays unfair games or postpone tax payments to get some cash flow advantages.

Explaining and making transparent the reasons why contributors are classified in one or another layer stimulates good competition and exposes who is playing unfair games. This approach is consistent with Dijk and Siglé (2015) proposal.

Legal Reliability

The basis of model should be implemented using the force of law to define the overall structure, administrative procedures and general structure, to assure that the criteria will not be constantly changed by the tax administration, this provides stability, to taxpayers.

Criteria

There are three direct, simple, and easily understandable criteria:

- 1) *Consistency* between invoices issued and bookkeeping declared, whether the fiscal receipts emitted match what was declared to Revenue Office, that look for indications of tax evasion;
- 2) *Compliance*, payment of declared taxes, whether tax collections fully correspond to what was declared - check any pending debts;
- 3) *Commitment (compliance) of suppliers*, preference for suppliers who represent mostly taxpayers with tax regularity, whether the acquisitions are made from suppliers in compliance with the criteria above, compliant and without accounting inconsistencies.

These criteria can be revised and actualized as the time goes by. However, it has some limitations and risks associated:

- 1) *Consistency* – The quality of the initial database used to implement the system could be an issue. However, establishing simple and fast complains review systems can solve this problem.
- 2) *Compliance* – enterprises under protection against debtors' law (equivalent to Chapter 11, in U. S. legislation), continue to operate. To accommodate this situation, the classification could aggregate this information (under judicial protection against debtors) and consider only compliance after the judge ruling in favor of judicial protection. This will avoid that these enterprises hurt all supplier chain classification;

- 3) *Commitment (compliance) of suppliers* – Companies could use suppliers from other states or even other countries, which could limit the scope of the proposal, in this situation, compliance declarations from other states/countries or other means of proof of regularity can be used.

Other potential risks associated with this implementation are: conflict with taxpayers' size segmentation and monitoring. To avoid any conflict the established criteria should take into account the size of the company, based on TADAT recommendations, and have specific provisions, especially for consistency measurement for small enterprises, as already explained, and definition of suppliers' requirements. Clearly large companies have more market power to enforce commitment of their suppliers to the program. Therefore, the composition required from A+ to C should vary according to the size of the company.

This system will require a close monitoring and evaluation system, with objective controls and indicators to identify any failure and adjust the criteria being used on a timely basis to work properly. This will require a specific risk management plan from the tax administration.

Rating

Based upon the criteria above, for example, to be classified in the group A+ the taxpayer must have to attempt the consistency, compliance, and have to maintain a supply chain mostly formed by contributors classified in the groups A+ and A. The segmentation in the others groups will take place according to the contributors' own consistency, compliance, and its supply chain behavior.

The insertion of the supply chain behavior as a criterion will help the establishment of compliance systems for the whole market. It is a legal and sophisticated method to normalize all economic sectors. The idea is to minimize the possibility of some large company adopts corporate tax aggressive plan when comparing equity risks incentives (Rego & Wilson, 2012) by establishing positive encouragements to comply.

The supply chain behavior also has the potential to favor productive clusters' development. The anchor company using its commercial and financial links with other enterprises, as proposed by Santos, Crocco and Lemos (2002) can help the tax administration to spread compliance culture to its suppliers to improve its own tax risk classification. This happens because the suppliers are in a subordinate position and are dependent on the anchor company following Santos and Guarnieri (2000).

Based on these criteria, taxpayers are classified into 7 groups. In the classification "A +" will be the taxpayer with fiscal pecuniary obligations due and not paid for less than 60 days (compliance); with at least 98% adherence (consistency); and a minimum of 70% of suppliers' inputs in "A +" or "A" and a maximum of 5% in "D". In the classification "D" will be the taxpayer with obligations due and not paid more than 6 months; less than 90% adherence; and less than 40% of supplier entries in "A +", "A" or "B", or more than 30% in "D". "Inactive" taxpayers will be classified as "E", who will be the target of possible operations alongside the Public Prosecution Service and in "NC" (Unclassified), new foreign companies / suppliers.

Cluster analysis techniques were used to define the groups, aiming to adapt the number of taxpayers in each group to the Tax Administration's inspection capacity. The statistical techniques, cutoff points and size of each group were not made available for public disclosure by the Tax Administration. It is important to verify that the criteria define clear parameters for the "A +" and "D" extremes, defined in law and leave the definition of the intermediate criteria for the Tax Administration, in Regulation, according to the taxpayers' behavior. This decision allows the model to incorporate new statistical techniques in the future and is consistent with the approach proposed by Vellutini (2011).

Website for Transparency

The rating will be available on Internet, anyone could consult the current status, the historical of some specific contributor, and the tendency of its classification.

This historical register can be used by the general public in several ways. For instance, to evaluate risks of discontinuity of suppliers in contracts, or to evaluate credit risk for financial institutions and suppliers. Furthermore, this information adds value to fiscally accountable companies. Publicity also

incentives the willing to integrate the A group, even for market visibility, access to simplified procedures to fulfill ancillary obligations, or other benefits that have a financial impact for the company. Next, we explain other complementary actions suggested to build trust in this proposal, especially the alterations in the way Tax Administration operates, some possible incentives to be used and finally some actions to minimize potential frauds and mismanagement.

Building Trust Relationship Based Upon This New Rating

Understanding the Treasury's Point of View

To be effective, it is necessary to reorganize the activities and duties developed by the tax auditors over each segment.

For years, the mantra of tax administrations was that contributors are criminals (Alm, Martinez-Vazquez & Torgle, 2010; Bird, 2010), are enemies, and are always looking for some way to evade their duties. It is so deeply encrusted in tax administrations' routine that all currently measurements about auditors' efficiency are based on the numbers of fines applied and the respective value intended. Even simple mistakes of auxiliary obligations receive several penalties and huge fines. The proposed rating intends to change this reality, using different tax administration approaches considering the segmentation of the taxpayer.

Self-Regularization and Prior Fiscal Analysis

Taxpayers A + and A will not have fiscal operations started without prior tax analysis (risk mitigation of tax liabilities). The process consists of analytical or field work by the fiscal agent, with the purpose of verifying tax compliance, but without loss of spontaneity and without possibility of drawing up notice of infraction. The objective is to invest in orientation; fines would be applied only as the last resource.

Taxpayer may follow recommendations of the fiscal agent and will have 30 days to make adjustments and prove the collection of differences to the Treasury, without loss of the benefits of spontaneity – in other words, without penalties.

After the deadline and without proof of adequacy and payment due by the taxpayer, the fiscal body will open a tax operation based on the pre-tax verification report. From this moment, spontaneity will not be applied anymore and fines will take place.

Participatory Plan of Action

Taxpayers of the A + Group will be able to participate in an institutional channel of dialogue with Treasury, directly collaborating in the definition of priorities for actions to simplify ancillary obligations, automation of systems, procedures, and other projects in mutual interests.

The conformity program aims to create an institutional forum and opened dialogue as a way to improve the relationship channels and enables further transparent relationship between tax authorities and taxpayers. That is a radical changing in tax administration/taxpayers' relationship paradigm.

Monitoring, Passive Audits, and Surveillance

Administrations generally do not have sufficient resources to analyze and audit all taxpayers. The "A +" and "A" groups will continue to be monitored. However, management will apply human resources to specific checks on other tiers. Digital monitoring will analyze suspected cases to detect fraud and tax evasion, improving enforcement (Baer & La Borge, 2008).

The strategy is to provide information in real time for taxpayers send electronical messages showing the inconsistencies found through fiscal mesh, allowing direct access to data storage in the administration database by themselves, construct reliable taxpayers' registers, and create the perception of monitoring by sending feedbacks in real time. This plan is aligned with some OECD (2009) conclusions based on experiences and practices around the world.

VAT Certification for Accounting Professionals

A common complaint presented especially by small and medium enterprises is the lack of specialized Value Added Tax accounting professionals in the market. Providing training and a certificate from the State Treasury Department would provide substantial support. Moreover, a certification process also would incentive professionals to invest in its continuously professional development.

From the administration perspective, after some time of operation and consolidation of classification criteria, it will be necessary to reanalyze and update them. The different levels of certification can be used to set the distinction between companies. Several institutions can be used as benchmark after necessary adaptations. For all, it can be mentioned the Certification for Accountants and Financial Professionals in Business (IMA, 2017), and the National Association of State Board Accountancy Certification (AICPA, 2013).

Stop-loss Tax Credit System

Besides any discussion about aggressive tax plan and structured tax fraud, there are two common ways to commit tax fraud when we are talking about VAT. The first is to find improperly methods to diminish number of sell operations and, consequently, number of debits. The second is to declare false buying operations and, thus, generates false credits to increase the tax to be refund. Both movements are done in order to reduce the amount of money that would be paid to state.

The schema that tries to increase credits improperly can be divided in two common modus operandi. Companies that sell false credits do exist, but they are not feasible anymore and try to get easy money mixing real operations with false operations. In this situation, it is more difficult to capture the fraud. However, when it is discovered, authors are penalized and public sector receives the money back. The other possible fraud occurs when the whole company and all the operations are false. This evasion is relatively easy to discover, but is very hardy to recover some part of the amount deviated from state (Ministério Público, 2013).

One tool to mitigate this problem can be the implementation of the stop-loss tax credit system. Briefly, it is just a limit for the companies transfer credits for other companies. It will work upon the same bases as the analysis of the credit and its stop-loss system (Lanz and Tomei 2014), just adding the position on the risk classification.

The concept is the same as it is applied to guarantee loans; the stop-loss tax credit will be based upon a composition between the monthly payments made by the company to the state and the relation between subscribed capital and the effective paid-in capital of each company. The parameter could be around twenty times the amount of paid-in capital and could vary according to the rating of the company: A+ more flexible, E more rigid rules. New companies will be allowed to transfer tax credits considering a proportion of their paid-in capital.

Detection of Fraud Schemes and the Whistleblower Tax Program

According to one world-wide study conducted by PricewaterhouseCoopers that interviewed fifty-four hundred chief executive officers, chief financial officers, and chief compliance officers to detect the depth of corporate crime, the whistleblower method is the most effective source of information in both detecting and rooting out corporate criminal activity (Kohn, 2017).

Detection of frauds can occur by some active – Tax Intelligence Departments (CIAT 2009) - or passive detection method – informers (ACFE - Association of Certified Fraud Examiners, 2016).

For some cases where frauds were eventually detected, it will be applied new ways of surveillance based upon market rules of governance and accounting. For instance, contributors in these situations will be obligated to follow International Organization for Standardization directive ISO 31000 - risk management standards, for the minimum period of five years, under Treasury's supervision.

The tax whistleblower program will use the invoice register. The proposed reward will be 10%, in the maximum, of the amount effectively recovery to the state balanced according to real utility of the information presented. All tips will be analyzed by the sector that will be created for this specific purpose in cooperation with Justice Department and Prosecutor's Office.

Internal Tax Compliance Program

Associated with this huge paradigm changing in the relationship tax authorities/taxpayers, it is necessary to invest in effective internal controls of quality to guarantee a holistic, multifaceted, and efficient methodology. Internal compliance has to be implemented on three fronts: Risk Analysis, Governance, and Compliance (Russell, 2010). It aims to create mechanisms to monitor and evaluate outcomes, following OECD (2014), to evaluate tax compliance, revenue, integrity and effectiveness.

Hypothesis for Further Research

Some hypotheses for further quantitative studies, based on Dijk and Siglé (2015), Inasius and Nusantara (2015), and Rego and Wilson (2015) are:

Hypothesis 1. Risk classification is positively correlated with tax compliance.

Hypothesis 2. Larger incentives provided from tax administration to taxpayers are positively correlated with more tax compliance.

These (H1 and H2) are the main hypotheses of this research, risk classification associated with incentives increases tax compliance, based on Russel (2010), Rego and Wilson (2012) and OECD (2004).

Hypothesis 3. Larger penalties to taxpayers are positively correlated with more tax compliance.

Hypothesis 4. Probability of being audited is positively correlated with tax compliance.

These (H3 and H4) represent the traditional view of tax compliance, based on Bird, 2010 and OECD (2004).

Hypothesis 5. Referral group is positively correlated with tax compliance.

Hypothesis 6. Larger concentration of supply from few suppliers larger the tax compliance in the supply chain.

Hypothesis H5 represents some possible reflects on referral group opinion (clients, suppliers, employees, class association and society). Hypothesis H6 aim to test if there is any difference in compliance between companies with few suppliers or a large number of suppliers, additional hypotheses based on APL and anchor role can be proposed, based on Santos, Crocco and Lemos (2002) and Santos and Guarnieri (2000).

Hypothesis 7. Better risk classification is positively correlated with larger sales.

Hypothesis 8. Better risk classification is positively correlated with better credit access and lower interest rates.

Hypotheses H7 and H8 are proposed to test if these are additional benefits form the market to enterprise with better compliance, based on OECD (2004) and Russel (2010).

IMPLEMENTATION

Trust - The first step for the model implementation was a public consulting of law bill to institute the Transparency of Tributary Compliance Criteria. It took place from July 11 until August 11 of 2017 and received several contributions. This can be related to the Becerra and Gupta (2003) proposal to increase the frequency of communication and demonstrated that São Paulo State Treasury is willing to promote changes with society's participation.

The specific criteria for segmentation was also adjusted to address some characteristics of Brazil, and São Paulo state institutional environment

Simplicity - The proposal being implemented in São Paulo established seven different segments: A+, A, B, C, D, and E for the rating. New business will have another position out of the segmentation: NT (New Taxpayer) that will be classified in six months.

Transparency - The project is being implemented in a transparent way since its beginning, listening private sectors and creating the opportunity to propose adjustments, more than that, accepting what was proposed would allow to overcome the traditional Top-Down power system (Coleman, 2014).

Legal reliability - The model could be implemented by a decretal or resolution like (CMN, 2009). However, by using the force of law to define the overall structure, the strong message is sent to both sides, both private and public. The law defines administrative procedures and general structure, which provides stability, and provides that it will be applied only after its approval, not returning to the past. These are essential issue to assure the taxpayers tranquility.

Considering the three criteria proposed, some adjustment was also required:

- 1) *Consistency* – In Brazil, micro and small enterprises are exempted from bookkeeping under Federal “Simples” law. This could limit the program scope. An agreement with the Federal government could provide access to the necessary data;
- 2) *Compliance* – in some case judicial decisions prevent the Treasury to disclosure information. These cases will be treated in a case by case basis;
- 3) *Commitment (compliance) of suppliers* – this program initially is restricted to São Paulo state.

Many companies use suppliers from other states. Potential solutions are compliance declarations from other states or the extension of the program to other states.

Based on these criteria, taxpayers are classified into 7 groups. The table below presents the implementation in São Paulo state.

**TABLE 1
PROPOSED RATING**

	A+	A	B	C	D	E
1 Compliance	✓ No unpaid for more than 60 days	Statistical techniques will define the composition of each cluster, considering tax administration inspection capacity and contributor's nonconformity likelihood.			⊘ Unpaid for more than 6 months	Inactive (Derogated, cancelled registrations, unfit)
2 Consistency	✓ Up to 2% deviation				More than 10 % deviation	
3 Suppliers' compliance	✓ At least 70% on A+. No more than 5% on D				Less than 40% on A+, A or B. 30% or more on D	

Source: Prepared by the authors.

By creating market value for companies, this segmentation can invert the logical of “Brazilian Tax War”, stimulating big and regular companies to install its plants inside the states that adopt this rating system.

CONCLUSION

The proposal addresses private sector concerns over bias and inefficiency in tax systems. International organizations – IMF, The World Bank, OECD – and academic studies (Alm et al., 2010; Dijk & Siglé, 2015) presented recommendations to change tax administrations. However, transparency, reliability, and fair competition do not support any tax compliance program without the pillar of simplicity. Trustworthy relationship, basis for every compliance incentive, depends on these four pillars. The proposed model tries to observe these fundamentals. They are important not only because experts are pursuing the establishment of a new trust relationship. The three criteria suggested are objective, direct, and simple: consistency, compliance, and commitment of suppliers. This strategy aims to reduce costs of litigating process and to create a sustainable and innovative structure for tax administrations.

Considering the implementation, São Paulo authorities are trying to avoid judicial appeals and inquiries. Besides that, one of this program limitations, initially the program is restricted to São Paulo state, can be considered also an opportunity since it fosters the development of local productive arrangements, stimulating the estate economy, especially for MSMEs.

Opportunities for improvement include incorporating additional variables into the classification; implement the model in other states and federal government. Some actions mentioned: tax whistleblower, accountant certification, surveillance programs, and compliance inside the tax administration demand future research.

Other opportunities for further research include a quantitative study of the results of this model after initial implementation in São Paulo state to verify its effects on taxpayers' behaviors, tax returns and audit costs and test of the proposed hypotheses.

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