

# **Performance Indicators: Analysis Of Audit Reports With Indication Of Rejection Of Municipal Public Accounts**

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## **Abstract**

*The objective of this study is to analyze the performance indicators (PI) used in the opinions issued by auditors of the Courts of Accounts (CAs) indicating the rejection of municipal public accounts. For this, the following methodology was used: the ProKnow-C method to identify research on IDs in public management, in the Spell, Scopus, Web of Science and Google Academic databases, in the period 1986-2017; semi-structured questionnaire with 62 indicators with the auditors of the CAs through google forms; and analysis of the reasons adopted for the issuance of 4,260 opinions with indication of rejection of the accounts of municipal governments in the period from 2011 to 2016. The results indicate that the audit model adopted by the CAs is by legal compliance endorsed by a fiscal council of auditors; that audit opinions with indication of rejection are based on compliance with legality; that there is a lack of application of PIs in the auditing processes to assess the effectiveness of expenses in the rendering of accounts, despite the recommendations of the Federal Court of Accounts (FCA); and that the discoveries explain the absence of prior identification of evidence of corruption in municipal government accounts.*

**Keyword:** *Performance indicators; Public administration; Public Audit.*

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## **I. Introduction**

The incorporation of new control and monitoring techniques in the execution of public resources made by the CAs auditors, especially with regard to the evaluation of the effectiveness of budget expenditure, lead the public management towards the social well-being reach (TCU, 2010). Among these control and monitoring techniques, there are the PIs (Coelho, 2010) which, for example, can be retrieved and rescued from the literature to be used in audits of accountabilities by the municipal governments (Rocha, 2002).

The FCA in 1998, through the Technical Cooperation Project with the British Department for International Development, defines the audit methodologies by performance. It is possible this initiative by FCA will foster discussions on performance analysis by the State and Municipal Audit Courts, about on the audits performed on government accounts.

In reason this cooperation with the FCA itself constituted the Supervision and Evaluation of Government Programs Secretariat (SEGPS) in the year 2000, in charge of developing new working techniques (TCU, 2011). After ten years ago, the SEGPS, through the Ordinance 33/2010, approved the document "Performance Indicators Technique for Audits", and recommending its use for by the State and Municipal Audit Courts. Despite that, the use of that document is still insignificant (Silva et al., 218).

In 2002 the Association of Members of the CAs in Brazil, through characteristics mapped in each court, identified a deficiency of auditors in information technology. Consequently, it promoted the launch of the Program for the Modernization of the External Control System of the States, Federal District and Municipalities, with the support of the Inter-American Development Bank, to train auditors in all Brazilian audit courts in the period from 2006 to 2012. This same association led actions to develop government auditing standards, current Brazilian public sector auditing standards and create a web page to record good practices in performance measurement by all Brazilian audit courts (Lino & Aquino, 2017).

Ultimately, this same association encourages courts to adopt the Municipal Management Effectiveness Index (MMEI) on a voluntary basis. This index, created in 2014 by the CAs of the State of São Paulo and expanded

to several CAs with the support of the Rui Barbosa Institute (RBI), is the only indicator proposed to assess the efficiency of local government management.

Thus, this study aims at identifying the existence of performance indicators used in audits by audits of CAs to approve or reject the accountabilities of Brazilian municipalities. As it also, present the rejection opinions emitted by those auditors and to classify the structure of the audit modality based on Pollitt and Summa (1997) - general audit, court of accounts or colleges based on audit board.

So, this study decided to analyze national and international literature over 31 years (1986-2017), within Spell and Web Science database, researches about the patterns of performance indicators developed to evaluate the public management of local government.

Comparing to other researches, this study provides three unique contributions: (i) identifies performance indicators used in public audits, classifies the audit modality in the opinion judgment, and it expands previous researches on performance indicators used by audits in public management, for example, Pollitt & Summa (1997) and Silva et al. (2018); (ii) complements Mafra's studies (2014) and Silva et al. (2018) because it demonstrates the motives that underline the opinion emission with indication of rejection of local government accountancy; (iii) synthesizes in an only article, some models of performance indicators which may help future research on this issue.

In that regard, Gomes and Oliveira (2010) state that public management cannot be efficient and effective without the presence of performance indicators. Ribeiro (2002) suggests that the inspection model of the CAs must suit to the performance audit, operational audit or value for money audit.

The complement of this study is presented in five sections. The next section presents the theoretical framework. The third section describes the study methodology. The fourth section shows the results and discusses the research. The fifth and the last section conclude, discuss the limitations and offer suggestions for further studies.

The incorporation of new control and monitoring techniques in the execution of public resources by the auditors of the CAs, especially with regard to evaluating the effectiveness of budget expenditures, leads public management to the achievement of social welfare (TCU, 2010). Among these control and monitoring techniques are PIs (Coelho, 2010), which, for example, can be retrieved and redeemed from the literature, and be used in accountability audits by governments (Rocha, 2002).

In this context, the FCA, the federal public accounts oversight body, encourages discussions on performance analysis in audits of government accounts by the CAs, when it formalized a cooperation partnership with the British Department for International Development (BDID) to develop performance auditing methodologies and when it established the Secretariat of Oversight and Evaluation of Government Programs (SOEGP) to develop new working techniques (TCU, 2011). In 2002, the Association of Brazilian TC Members identified the deficiency of auditors in the use of information technology, and therefore, promoted the launching of the Program for the Modernization of the External Control System of the States, Federal District and Municipalities, with the support of the Inter-American Development Bank, to train auditors of all Brazilian CAs in the period from 2006 to 2012. This association has led actions to develop government auditing standards, and to create a webpage to record best practices in performance measurement by all CAs (Lino & Aquino, 2017).

The SEGPS, through Ordinance 33/2010, approved the document "Performance Indicators Technique for Audits", and recommends its use by CAs. Ribeiro (2002) suggests that the inspection model of audits in government accountability should conform to performance auditing, operational auditing or value for money auditing. Gomes and Oliveira (2010) state that public management cannot be diagnosed as efficient and/or effective without the use of PIs in the analyses. Lino and Aquino (2017) indicate that the specialized literature is lacking studies on PIs in the analyses of government public accounts in Brazil. Silva et al. (2018) suggest that it is still incipient studies on the use of PIs in the analysis of municipal government accountability. In view of the records presented, there is a gap in the research on the use of PIs in the analysis of public accounts with regard to the indication of approval or rejection.

Given the above, as well as elapsed more than ten years after the first FCA actions on the voluntary adoption of performance evaluation techniques by CAs auditors, in the audits of the accounts of Brazilian municipal governments, this study aims to analyze the performance indicators (PIs) used in the opinions issued by auditors of the CAs indicating the rejection of municipal public accounts.

The study is justified for fostering discussions about the research gap, as well as for providing unique contributions on the proposed theme: (i) it identifies PIs used in public audits; (ii) it classifies the audit modality in the auditors' opinion judgment; (iii) it expands previous researches on PIs used in public management audits (Pollitt & Summa, 1997; Silva et al. 2018; (iv) complements the study of Mafra (2014) by demonstrating the reasons that underline the issuance of opinion with indication of approval or rejection by the CAs auditors; (v) synthesizes and presents some PIs models that can help future researches on the proposed theme.

This study is structured in five sections. The first section describes the introductory aspects. The second section presents the theoretical framework. The third section describes the methodology of the study. The fourth

section presents the results and discusses the research. The fifth and last section concludes and presents the limitations and suggestions for future studies.

## **II. Audit models in the public sector**

In the quest to ensure the management of the financial budget cycle, audit processes are relevant in complying with the legality and efficiency of the actions of regional and local governments, since this cycle constitutes a series of routines that guide the allocation of resources public (Campos & Pradhan, 1996; Andrews, 2007). Each of those phases involves various government and civil society actors that produce and use information needed to deliver social welfare (Moynihan & Andrews, 2010), and the CAs and internal government controls are prominent through their developed activities.

In this context, it should be noted that external audit institutions can be classified into three broad general models, the Westminster model, the collegiate model and the Napoleonic model), and it is through these models that operational activities are defined and practiced (Stapenhurst & Titsworth, 2001; Lino & Aquino, 2017).

In the Westminster model, adopted in the United Kingdom, Chile and Peru, the general auditor with an economic and financial profile centralizes decisions covering all the matters of the body. And audit activities have a less prominent financial focus on legality (Stapenhurst & Titsworth, 2001). Local governments in the UK are audited by public auditors and private auditing organizations. However, they have been audited since 2010 only by private organizations (Jones & Caruana, 2015).

In the Collegiate model, used in Germany, the Netherlands and Japan, maximum authority is delegated to a council with consensus decisions (Stapenhurst; Titsworth, 2001). In Germany, the state-level audit is carried out by an independent government agency with full autonomy to establish the scope of work. In local governments, the audit is carried out by private companies, except in cities or municipalities where the agency that audits the state is headquartered (Berger & Heiling, 2015).

In the Napoleonic model, followed in Brazil, France, Italy and Spain, public audit institutions aim to examine the legality of processes carried out by governments, with little or no attention to the efficiency of expenditures. In this model, the legislative chamber takes the final decision on the accounts of local governments, through technical opinions from public auditors and political reflections (Stapenhurst; Titsworth, 2001).

Although constitutional provisions and institutional arrangements vary from country to country, courts of auditors often act as auxiliaries to the legislature (O'donnel, 2003), and are often discredited and challenged on the basis of their ineptitude in combating corruption and improving the effectiveness of public spending in Latin American governments (Dorotinsky & Floyd, 2004; Santiso, 2007).

On the other hand, based on audit procedures performed by public auditing bodies in local governments, Santiso (2007) states that there are three types in the literature: (i) financial - relevant to the credibility of financial reports; (ii) legality - referring to compliance with legal standards; and (iii) performance - relevant to the efficiency of public spending.

The literature has been fostering discussions about the quality of public spending by municipal governments (Berne & Schramm, 1986; Brown, 1993; Rocha, 2002; Coelho, 2010), and the use of tools to evaluate this quality by the control agencies has been oriented to the application of performance indicators (TCU, 2011; Brasil, 2013; Silva et al. 2018), object of this study.

Empirical research on the analysis of the financial health of governments in some countries has been referenced for case studies in municipal governments in Brazil (Santiso, 2007; STN, 2012; Lima & Diniz, 2016; Lino & Aquino, 2017), however, little or none on the quality and effectiveness of spending.

As we see, there is concern from control institutions about how public resources are spent. However, it is not yet noticeable in the legislature, a body that has the prerogative to regulate executing actions (Silva, et al. 2018). In this sense, this study seeks to elucidate which performance indicators are used by auditors in audits of accountability by local governments.

Based on the operational activities of the auditors, Barzelay (1996) suggests five criteria that should be persistently pursued by the auditors of the CAs when assessing the accountability of local governments: (i) image of the government; (ii) good functioning image; (iii) main purpose of the review; (iv) predominant modality; and (v) review the auditor's role.

Considering that there is no standard of control and judgment in auditing practices, especially with regard to the use of performance indicators in evaluating the efficiency of municipal government management, Berne and Schramm (1986) and Brown (1993) suggest that these indicators should to be in agreement with the characteristics of qualities suggested by the Global Corruption Report 2004 - Transparency International.

Pollitt Summa (1997) suggests three models of auditing in the public sector: (i) Auditor General, also known as the monocratic model (Santiso, 2007; Lino & Aquino, 2017); (ii) court of auditors, also known as the tribunal model (Santiso, 2007; Lino & Aquino, 2017); and (iii) audit board-based colleges, known as the board model (Santiso, 2007; Lino & Aquino, 2017).

The monocratic model (i) is headed by a single auditor general and generally acts as an auxiliary to the legislative power, although with wide autonomy. This model focuses on ex-post audit, rather than ex-ante control, and emphasizes financial and performance auditing over compliance control. The controls performed seek to correct rather than penalize. This model is predominant in Anglo-Saxon countries such as the US, the UK, or Canada, and in Latin America in Chile, Colombia, Mexico, and Peru.

The tribunal model consists of a collegial court of auditors or audit tribunals, endowed with quasi-judicial powers in administrative matters, often acts as an administrative tribunal, privileges legal and financial compliance over performance auditing. Links with the legislature are weaker than in the monocratic model. Countries like France, Italy or Spain, and in Latin America, Brazil and El Salvador, follow this model.

Finally, the council model is an agency with collegial decisions similar to those found in courts, headed by an audit committee, but without jurisdictional authority or quasi-judicial powers. Under this model, autonomous audit agencies (AAAs) issue an audit opinion on the reliability and probity of government accounts, usually to the legislature. Germany, the Netherlands, Sweden, and in Latin America, Argentina and Nicaragua, follow this model.

The three models share a common central feature, their independence from the executive branch (except in Bolivia). They are linked, to varying degrees, to the legislative branch. The tribunal model has closer ties with the judiciary, as in the case of the Brazilian UCA, the council model with the legislature, as in the case of Argentina, and the monocratic model with the bureaucracy, as in the case of the Chilean government.

The absence of discussions in legislative spaces (Brazilian National Congress), may be an incipient variable for the application of the FCA recommendations on the use of PIs in the audits performed by the CAs on public accounts. Another relevant point is the audit modality adopted by the audit courts. This adoption directs the profile of the auditing processes carried out (Barzelay, 1996), as well as the quality standards contained in the Global Corruption Report 2004 (Berna & Schramm, 1986; Brown, 1993).

### III. Performance indicator models

In this subsection, performance indicators models found in literature national and international appear with different approaches in gauging the financial status of local governments. These approaches are understood as predictive models that help to monitor fiscal health and surprise event occurrence of municipal financial crises.

Ramsey (2013), Lima and Diniz (2016) label performance indicators in three systemic categories: closed, open, and quasi-open indicators. The first contemplates indicators on the financial health and fiscal difficulty of governments that are measured and evaluated over time. The second contemplates the external variables that affect the financial health of governments. The third deals with the internal and external variables that reflect the financial health and fiscal difficulty of governments, in other words, the combination of the first and second category.

Table 1 shows these predictive indicators with their respective technical categories. As well, it is possible to identify that 47% of the indicators consider the particularities of each relevant location to understand that these characteristics can contribute to the composition of fiscal outcomes (Berne & Schramm, 1986; Hughes & Laverdieri, 1986; Campbell, 1990; Brown, 1993; Kleine et al. 2003; Hendrick, 2004; Wang et al. 2007; Sohl et al. 2009). Only one model presents an analysis of the tax environment (Kavanagh, 2007). This concern suggests the fiscal reflexes that the public budget causes.

It is possible to see in Table 1 the predominance of models directed to analyze the government's financial health. This reality ratifies the literary deficiency on performance evaluation of public spending pointed out by Pollitt & Summa (1997); Rocha (2002); Gomes and Oliveira (2010); Coelho (2010); TCU (2011); Mafra (2014); Lino and Aquino (2017); Silva et al. (2018).

**Table 1 - Closed, nearly open and open performance indicators**

Author	Year	Category	TA	IA	LC	IR	TDA	BA	RA	SE	FEA
Berne & Schramm	1986	Closed	Finances	X	X						
Hughes & Laverdieri	1986	AO	MD	X	X	X					
Campbell	1990	AO	MD	X	X						
Brown	1993	Closed	Finances	X	X	X					
Alter et al	1995	Closed	Finances	X			X				
CICA	1997	Closed	Finances	X							
Chaney et al.	2002	Closed	Finances	X							
Kleine et al.	2003	AO	Finances	X	X	X	X				
Groves & Valente	2003	AO	MD	X			X				
Schuknecht & Afonso	2003	AO	Finances	X	X	X	X			X	
Hendrick	2004	Open	OT	X	X	X		X	X		
Kavanagh	2007	Open	Finances	X			X	X	X		X
Wang et al.	2007	Closed	Finances	X	X			X			
Sohl et al.	2009	Closed	Finances	X	X	X					

Krishnakumar et al.	2010	Open	MT					X		X	
STN	2012	Closed	Finances	X		X	X				
Titu & Bucur	2015	AO	Mathematics	X			X		X	X	

**Note:** AO – Almost Open; MD – Multidisciplinary; OT – Organizational Theory; MT – Macro economic Theory; TA – Theoretical Approach; IA – Index Analysis; LC – Local Comparison; IR – Index Ranking; TDA – Tendency Analysis; BA – Bivariate Analysis; RA –Regression Analysis; SE – Simultaneous Equation; FEA – Fiscal Environment Analysis. **Source:** Adapted from Ramsey (2013) and Lima and Diniz (2016).

Berne and Schramm (1986) propose a structure to measure the financial performance of governments through the comparison analysis along the time, by means of two main variables - “available resources” and “pressure by expenditure”.

Hughes and Laverdiere (1986), in search for improvement in decision making and allocation resource budget, developed a decision model “comparative financial analysis”, composed by four macro variables. They suggest that these four variables can measure the efficiency and efficacy of public management within budget execution, as well as to help managers in decision making.

Campbell (1990), thinking of contributing to the decision-making process, developed a model known as comparative decision support system, based on Hughes and Laverdiere (1986) structure model, which consists of selecting municipalities that present social, economic and financial indicators, recommended by Advisory Commission on Intergovernmental Relation (ACIR).

Brown (1993) consolidates ten indicators to evaluate the basic financial factors (revenue, expense, operation and structure) in municipalities up to 100 thousand inhabitants, ables to measure and compare the public management performance among municipalities. The efficacy of this model is represented in the column “observations” (see table 2).

**Table 2 - Evaluation Indicators of Financial Performance**

Description	Formula	Observations
1. Per capita Income	Total revenue ÷ Population	The bigger the better
2. Own Revenue	(CTR - CT) ÷ Total Revenue	The bigger the better
3. Transfer Revenue	CTR ÷ Total Revenue	The smaller the better
4. Operating Expenses	Current Expense ÷ Total Expense	The smaller the better
5. Expense Coverage	Total Revenue ÷ Total Expense	The bigger the better
6. Drop-off Coverage	Surplus ÷ Total Revenue	The bigger the better
7. Short-term Obligation Coverage	Availability ÷ CO	The bigger the better
8. Current Revenue with Short-term Obligations	STO ÷ Total Net Revenue	The smaller the better
9. Per capita Debt	Consolidated Debt ÷ Population	The smaller the better
10. Current revenue with Indebtedness	Consolidated Debt ÷ CNR	The smaller the better

**Note:** TCR – Total Current Expense; CT – Current Transfer; CTR – Current Transfer Revenue; CO – Current Obligations; STO – Short-Term Operations; CNR – Current Net Revenue. **Source:** Silva et al. (2018, p. 5-16)

The indicators in Table 2 measure the government's financial health in terms of liquidity and availability. The main focus is on the variables "revenues" and "expenses". The target set for each indicator in the "note" column consolidates the set of suggested indicators. However, we observe the need for an analysis in its entirety, rather than the individuality of each indicator. This is because the model is based on "income" and "expenses". Although, it is noted that the model does not cover the effectiveness of spending.

Taking as a basis the model suggested by Brown (1993), directed to municipalities with population above 100 thousand inhabitants, Alter et al. (1995) suggest a model that predicts revenues and expenses for small municipalities aiming at evaluating fiscal tendencies. Likewise, the Canadian Institute of Chartered Accountants - CICA (1997), created a set of indicators capable of measuring the financial condition of provinces and the federal government in Canada. These indicators were grouped in three factors and each of them with specific indicators: (i) sustainability factor; (ii) flexibility factor; and (iii) vulnerability factor.

Contributing to the literature discussions on financial performance models, Chaney et al. (2002), based on GASB 34 (Government-wide financial statements), developed a model of financial indicators focusing on four dimensions: (i) financial position; (ii) financial performance; (iii) in the liquidity dimension; and (iv) in the solvency. On this same understanding, Kleine et al. (2003), due to the limitation of the Brown (1993) model, such as, the lack of social and economic indicators, the comparability of results over time and the assessment on the fiscal health of each analyzed unit, suggest an alternative model composed of nine indicators (see table 3). That model, called the 9-point scale of fiscal stress, was later updated by Kloha et al., (2005).

**Table 3 - The 9-point scale of fiscal stress Model by Kleine et al. (2003)**

Indicators	Performance Pattern
1- Population growth (2 years)	1 point penalty for the government, if population decreases
2- Real growth of Taxable Amounts (2 years)	1 point penalty for the government, if real growth is negative

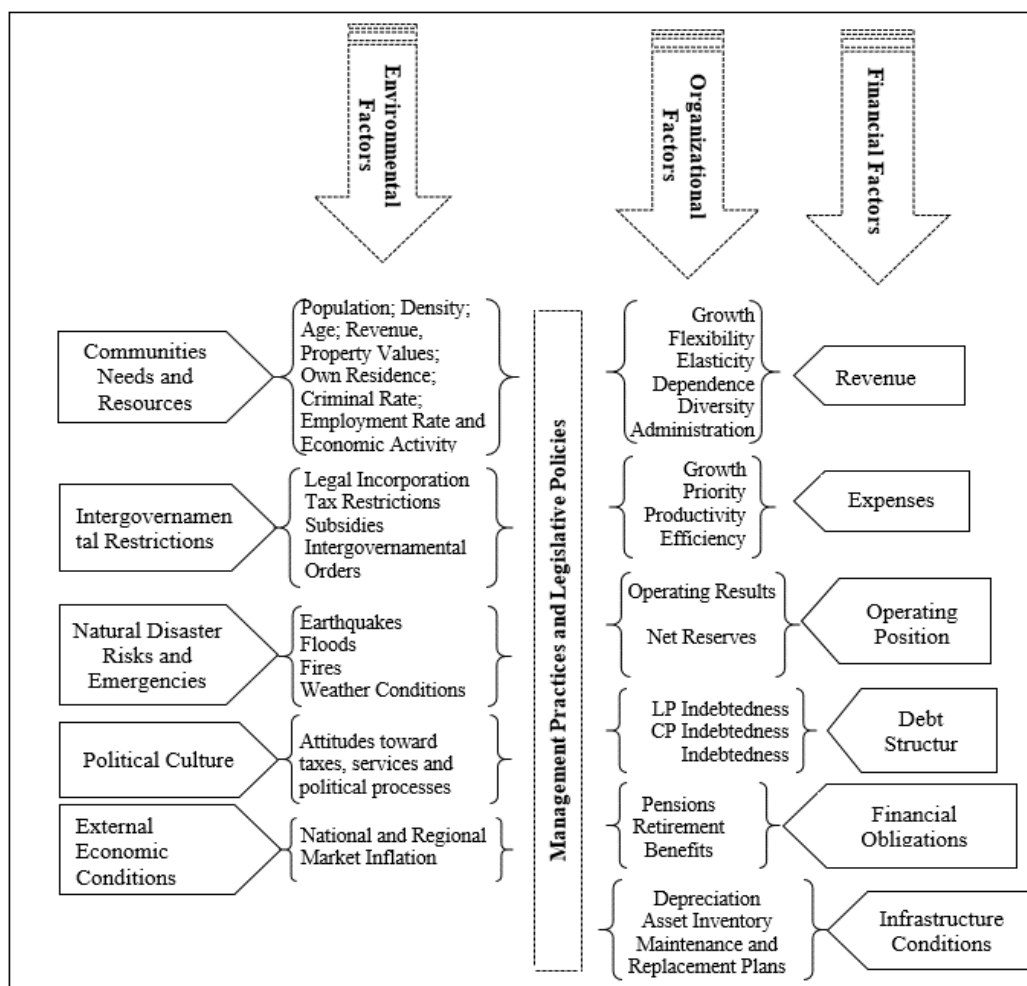
3- Significant Real Reduction of Taxable Amounts (2 years)	1 point penalty for the government if reduction is $-0,04$
4- General Fund Expenses $\div$ Taxable Amounts	1 point penalty for the government if the result shows a score $> 0.05$
5- General Fund Operating Deficit (Difference between General Fund Expenditure) and Revenue $\div$ Revenue)	1 point penalty for the government if the result is $<$ than 0.01
6- Operation Deficit from previous years	1 point penalty for each year, up to 3, for the government if it shows operating deficit
7- Financial Fund $\div$ Revenue	1 point penalty for the government if the result is $<$ than 0.13
8- The previous year deficit or the current of the larger special fund	1 point penalty for the government if it presents deficit in the previous year or in the current year for the larger special fund
9- Long Term Debt $\div$ Real Taxable Amounts	1 point penalty for the government if its result is $>$ than 0.06

Source: Lima and Diniz (2016, p. 534-554)

Groves and Valente (2003) updated and revised their “Financial Trend Monitoring System” model, originally published in 1980 by International City Management Association, with the objective of identifying the factors that affect the government financial condition. This model is made up of 11 environmental and financial factors with 42 associated indicators (27 financial and 15 environmental), according to Figure 1.

The “infrastructure condition” (depreciation, asset inventory, maintenance and asset replacement plans) shown in Figure 1, is not very common in the Brazilian municipal governments (Gomes & Oliveira, 2010), because may present puzzles that need to be overcome, under penalty of not reaching the amplitude of the model.

Figure 1 - Determinant Factors of the Municipality Financial Condition.

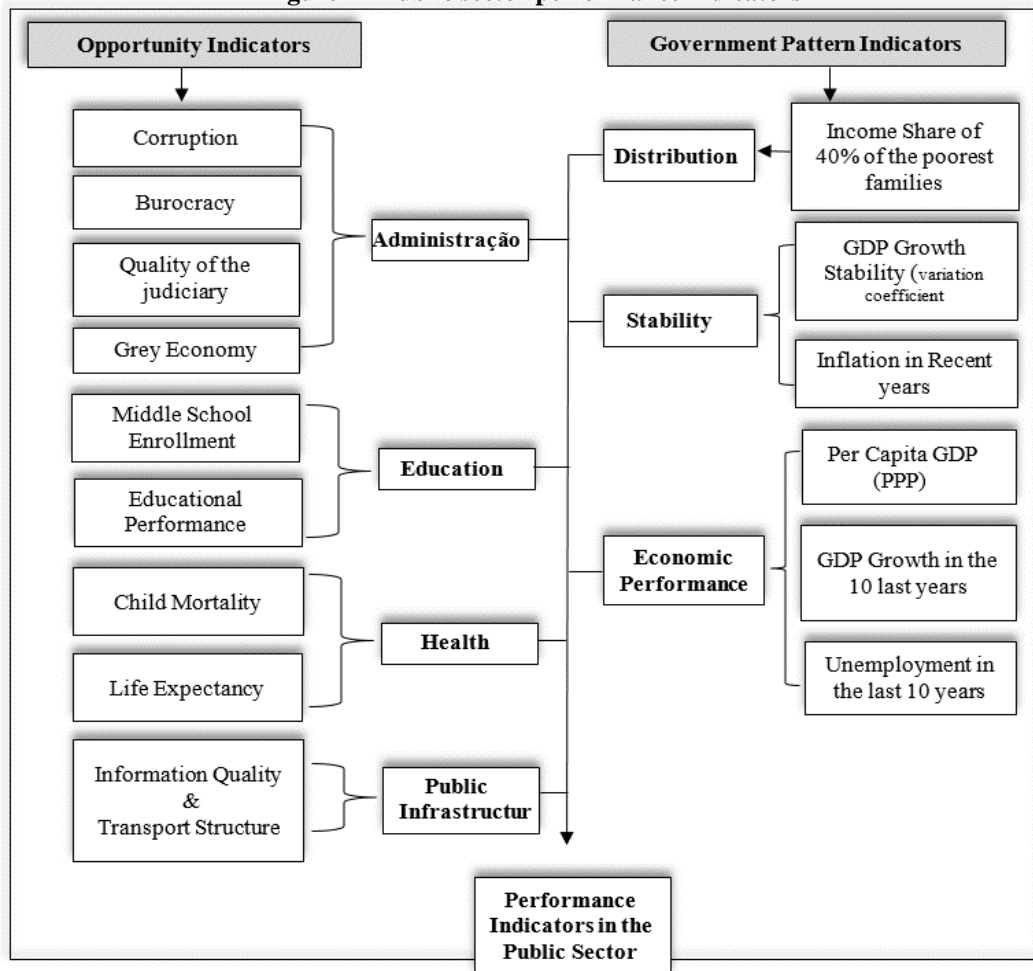


Source: Groves and Valente (2003).

Schuknecht and Afonso (2003) propose seven indicators to measure the public sector performance. They are distributed in two big groups: (i) Opportunity Indicators and (ii) Government Pattern Indicators (see figure 2). The joining of indicators in these two groups favors the public sector efficiency measurement, considering that the performance is defined towards the used inputs. The authors applied a Data Envelopment Analysis approach

(DEA), by using as an output measurement the performance indicator of the public sector and as an input measurement the total expenditure of the government in the GDP proportionality, to measure the model efficiency.

**Figure 2 - Public sector performance indicators**



Source: Schuknecht and Afonso, (2003, p. 29-51)

Hendrick (2004), as a consequence of a study carried out in 264 municipalities of Chicago, the United States, suggests a model to measure the financial condition and the fiscal health of the local government, with the objective of promoting a connection between the government system and its environment. The research identified that the “financial condition” and “fiscal health” variables must be measured separately, because their relation occur indirectly and non-linearly. For this reason, the author chose four dimensions (Community wealth dimension; Need for expenses dimension; Balance in the fiscal structure dimension and Fiscal gap dimension) to parameterize the model. Through this model, the author affirms that it is possible to calculate the financial condition and the municipality health, including carrying out projections for future periods.

Kavanagh (2007), with the purpose of identifying the govern threats, weaknesses, restrictions, challenges and opportunities when interacting with its environment, suggests a model with six factors and its respective sub factors (see table 4).

**Table 4 - Kavanagh Model (2007)**

Factors	Objectives	Sub factors
Sufficiency	Calculate the need of resources to accomplish the planned public services/products.	Macroeconomic drivers: interest rate, unemployment and employment, exportation, industrial productivity, building permission, and other similar.
		Microeconomic drivers: number of tourists and occupied hotel beds, etc.
		Current Resources: per capita revenue and expense, operation revenue and total expense, actuarial liability, long term debt to finance short term expense, etc.

Equity	Tax burden allocation for public services/products financing	Contributors' perception towards resource allocation in public services/products; Total government cost: own revenue towards municipalities income; Intergenerational Equity: debt ratio between present and future generation.
Demand	Alignment between assets/services and the available resources to finance them	New demands and changes in the current ones: population growth, development plans, change of personal income and similar; Current Demand: deficit in service/product offered and indicators of specific demands.
Flexibility	Government capacity to relocate resources to attend the society needs changes	Resource Reserve for unexpected occurrences; Composition of own revenues and less dependence of resources and others in public institutions; High participation of fixed expenses x limited flexibility; External and Internal Debt: capacity of indebtedness and other elements related to debt; Contracts to provide specific assets and services.
Political Environment	Dynamics of the political environment corresponding to contributors that affect collection, public expenses and management	Groups that demand efficiency and efficacy from the government: union, association, etc.; Use of good managerial practices: adoption of solid financial policies, performance measurements, expenditure control, balance between centralization and decentralization; Government Project Analysis: electoral promises, managers' point of view, meeting schedule with councils, etc.;
Vitality	Economic potential of the region and the society in producing resources to attend on the society needs	Population size and growth; Kinds of businesses and companies, level of employment generation, and other similar; Maintenance capacity of existing infrastructure and new building constructions; Exploitation capacity of natural resources in the region.

Source: Lima and Diniz (2016, p. 540-554).

Wang et al. (2007) states that a strong economy provides healthy financial conditions and capacity for a government. Based on that statement, the authors suggest that a performance model with eleven indicators to measure the financial condition of a local government. This model has four dimensions that are presented by Groves and Valente (2003), (i) financial; (ii) economic; (iii) demographic; and (iv) financial information.

Shol et al. (2009) suggests a model with theoretical approach. However, when applying the cross-jurisdictional comparisons technique, they expand the models suggested by Berne and Schramm (1986) and Campbell (1990). In this model, the authors took the Financial Trend Monitoring System developed by Groves and Valente (2003) through rank-driven methodology indicators as their base.

Krishnakumar et al. (2010) developed an assessment model of financial performance with the objective of demonstrating the simultaneous relationship between revenue and expenses, as well as explaining the fiscal balance, based in research carried out with 26 small Swiss districts, whose data were collected from 1980 to 2002. For that, data techniques were applied in simultaneous panels and equations in order to identify the bidirectional casualty between revenue and expenses, as well as the net impact of these variables in the fiscal result. Mathematically speaking, this model measures the financial and socio-economic capacity of the government.

National Treasure Secretariat - STN (2012), suggests a technical model to analyze the fiscal situation of public institutions (municipalities and states), about the payment capacity by credit concession. This technical model establishes a "weight" from zero to ten for each variable, resulted from math calculations (formula). Still, "classification", through a decreasing and increasing interval equation from A, A+, A-, B, B+, B-, C, C+, C-, D, D+, D-, associated to credit risk, where: A+ corresponds to 100% (excellent fiscal situation and credit risk almost null); A and A- correspond to 85% to 70% respectively (very strong fiscal situation and credit risk is very low). B+ and B correspond to 55% and 40% respectively (strong fiscal situation and low credit risk). B- means 25% (good fiscal situation and medium credit risk); C+ represents that the fiscal situation is weak and the credit risk is relevant. C, C- and D+ signal a very weak fiscal situation and very high credit risk). D and D- indicate that the municipality is in fiscal imbalance (see table 5). This model analyzes the tax situation of the public entity, which is determined by the score resulting from the weighted average.

**Table 5 - Payment Capacity and Fiscal Situation concerning credit risk**

Payment Capacity Measurement			Fiscal Situation Associated to Credit Risk		
Description	Formula	Weight	Classification	Interval	Fiscal Situation and Credit Risk



Indebtedness	Consolidated Public Debt ÷ Net Current Revenue	10	A+	0,00≤Pont≤0,50	Fiscal Situation is excellent; Credit Risk is almost null.
Debt Service on net current revenue	(Debt Service ÷ Net Current Revenue) x 100	9	A A-	0,50≤Pont≤1,00 1,00≤Pont≤1,50	Fiscal Situation is very strong; Credit Risk is very low.
Primary result of Debt	Primary Result ÷ Debt Service	8	B+ B	1,50≤Pont≤2,00 2,00≤Pont≤2,50	Fiscal Situation is strong; Credit Risk is low.
Salary Expenditure and Social Charges in Net Current Revenue	(Salary Expenditure + Social Charges ÷ Net Current Revenue) x 100	7	B-	2,50≤Pont≤3,00	Fiscal Situation is good; Credit Risk is medium.
Capacity of Generating Savings	(RC – DC ÷ RC) x 100	4	C+	3,0≤Pont≤3,50	Fiscal Situation is weak; Credit Risk is very high.
Share of investments in total expenditure	(Investments ÷ Total Expenditure) x 100	3	C	3,50≤Pont≤4,00	Fiscal Situation is very weak. Credit Risk is very high.
Share of RPPS contributions and remunerations	(Contributions + RPPS remunerations ÷ Expenditures social security) x 100	2	C- D+	4,00≤Pont≤4,50 4,50≤Pont≤5,00	Fiscal Situation is very weak. Credit Risk is very high.
Tributary Revenue on costing Expenses	(Tributary Revenue ÷ Costing Expenses x 100	1	D D-	5,0≤Pont≤5,50 5,50≤Pont≤6,0	Fiscal Unbalanced Situation.

Note: CR = Current Revenue; CE = Current Expenditure; Pont = Score; SSOR = Social Security Own Regime.  
Source: Adapted from Lima and Diniz (2016, p. 528-531).

Titu and Bucur (2015), in order to measure the quality of services in local public administration in Romania, according to Poister (2003) and Modol (2007)'s standards, developed the indicators of the quality of services in the local public administration model, consisting of 12 indicators originated from regression and likert scale, as a consequence of data collected in a Brasov County, from 2010 to 2013. Where a first global indicator of service quality management in local public administration can be defined in the form of an aggregate quality indicator or an average weight of indicators. A second, more refined definition of a global indicator of the quality of services in local public administration, which also uses probabilities, is to do on the Likert scale at levels above certain fixed values.

As we see, the literature promotes different approaches to evaluate the financial status of governments, combining a set of indicators that represent characteristics and factors that influence financial condition, especially revenues, expenditures, debt structure, and operating position. These different approaches are portrayed by predictive models (see table 1) of financial condition that help governments monitor fiscal health as well as detect warning signs to prevent the occurrence of financial crises.

Importantly, government financial condition is a conceptual construct that is difficult to measure in isolation, as it depends on several factors and variables (Lima & Diniz, 2016). Thus, these models presented present diversified characteristics, in which some models involve only financial variables produced by the organizations (Berne & Schramm, 1986; Brown, 1993; Alter et al. 1995; CICA, 1997; Charney et al. 2002; Kleine et al. 2003; Schuknecht & Afonso, 2003; Kavanagh, 2007; Wang et al. 2007; Sohl et al. 2009; STN, 2012), others include variables external to the organization to capture the influence of the environment on government financial performance (Hughes & Laverdieri, 1986; Campbell, 1990; Groves & Valente, 2003; Hendrick, 2004; Krishnakumar et al. 2010; Titu & Bucur, 2015).

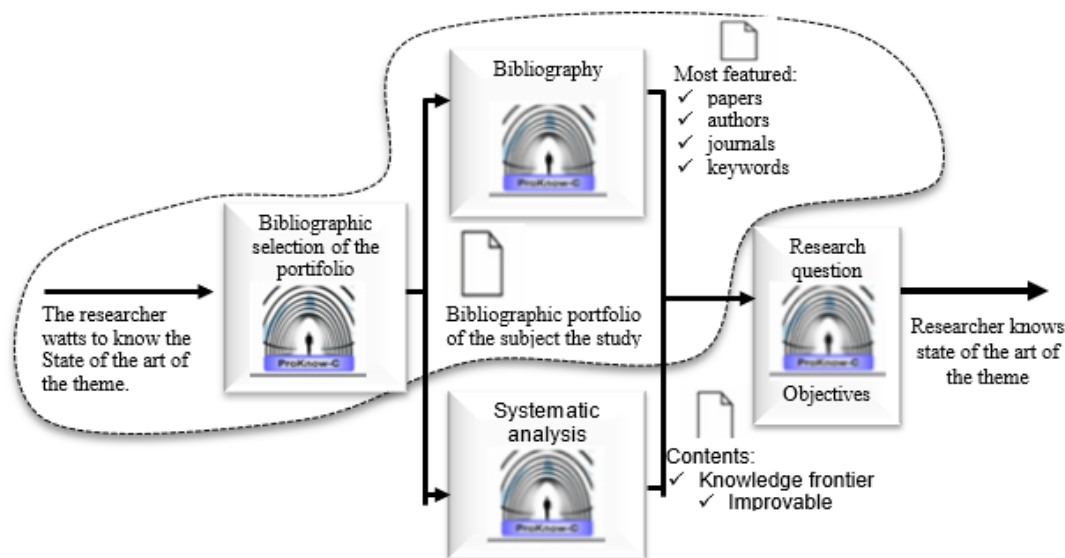
The predictive models of performance evaluation presented in Table 1, classified as closed, quasi-open and open, are mostly structured to assess the financial health of governments, in terms of availability of resources and ability to honor the short- and long-term commitments made by the public manager. However, with the exception of the model developed by Titu and Bucur (2015), they do not present a mechanism to evaluate the effectiveness of spending by governments, the focus of this study.

#### IV. Research methodology

To meet the proposed research objective, we identified in the national and international literature the studies conducted on performance indicators in public management, concerning the period from 1986 to 2017 (31 years), in the academic databases Spell, Scopus, Web of Science and Google academic, through ProKnow-C method (Ensslin et al. 2012), see also Da Rosa et al. (2011), Lunkes et al. (2012), Crispim et al. (2021), as shown in Figure 3. The results, were classified as closed, open and quasi-open model and according to their theoretical approach (see table 1).

Through the logistics presented in Figure 3, it was possible to identify over 31 years the models pertinent to the proposed objective, whose result is presented in Table 1. This result ratifies the research gap - the motivation for this study. After that, in order to identify the performance indicators used by public auditors in the audits carried out on the accountability of municipal governments, the auditors were sent a semi-structured questionnaire composed of 62 indicators distributed in eight categories (administration, finance, health, education, social assistance, public safety, environmental, economic, infrastructure and others), as suggested by Schuknecht et al. (2003), to effectively record the indicators adopted in view of the recommendations suggested by the FCA.

**Figure 3 - Macroetapas do ProKnow-C**



Source: Ensslin et al. (2012, p.78)

In order to obtain the largest number of responses to the questionnaires collected, two steps were followed: in the first, prior telephone contact was made with the 27 auditors responsible for the external accounts of each CA, informing them of the objective and scope of the research and asking them to participate by answering the questionnaire that would be sent to them shortly. It is worth pointing out that the success in some contacts, occurred after some insistent attempts, including scheduling interview. This protocol was necessary to achieve the highest number of answers to the questionnaires.

In the second stage, after the contact described in the first stage, the questionnaire was sent to the e-mails sent by each representative of the CAs. The e-mails were sent in just one day. In some situations, they were resent.

To identify in the specialized literature the performance evaluation models directed to public management, as well as the audit modalities, throughout 31 years, and confront them with the effective audit practices carried out by the auditors of the Brazilian CAs, characterize the north of this qualitative study. Thus, it becomes relevant to register what is offered in the literature, and what is effectively practiced in the audits of accountability of Brazilian municipal governments.

In order to test the veracity of the answers to the questionnaires, a cross-check was performed with the 4,260 opinions issued with indication of rejection during 2011 and 2016, in order to find any similarity of the answers to the questionnaires with the grounds that anchored the opinions of rejection of the governments' accounts rendering. It is prudent to point out that these rejection opinions were collected from the websites of each court of auditors.

The statistical analysis method applied in this study was descriptive statistics, with the help of Likert scale, through the Excel spreadsheet to organize the data and Stata software. The data collection was performed in the specialized literature through the ProKnow-C method (Ensslin et al. 2012) and semi-structured questionnaire sent to the auditors involved with accountability and finance of municipal governments in the CAs.

## V. Analysis and discussion of the results

With the objective of analyzing the audit reports on the rendering of accounts of municipal governments regarding the use of PIs to recommend approval or rejection of the accounts, the study analyzed the literature discussions on the subject, investigated the audit modality applied, the IDs used by the auditors of the CAs in the audits performed and analyzed the opinions with indication of rejection issued in the period from 2011 to 2016.

In the literature discussions, over 31 years (1986 to 2017), PIs models suggested by Berne & Schramm (1986), Hughes & Laverdieri (1986), Campbell (1990), Brown (1993), Alter et al. (1995), CICA (1997), Chaney et al. (2002), Kleine et al. (2003), Groves & Valente (2003), Schuknecht & Afonso (2003), Hendrick (204), Kavanagh (2007), Wang et al. (2007), Sohl et al. (2009), Krishnakumar et al. (2010), STN (2012) and Titu and Bucur (2015). In these models, IDs are presented exclusively to evaluate the financial and fiscal health of governments, as to their solvency and degree of responsibility to fulfill short- and long-term obligations, as well as to capture future financial resources. The results of these analyses ratify the statements regarding the lack of studies on performance evaluation of public spending through IDs used in audits, as stated by Lino and Aquino (2017) and Silva et al. (2018). It is possible that this concentration on "finance" is related to the understanding that the focus of the public budget is financial resources, or to the lack of interest in discussion by the legislative bodies.

With regard to the results of the questionnaires sent to the auditors of the CAs, to identify the PIs used in the audits of the rendering of accounts of the municipal governments, 67% returned. Of these returns, 86% were from the North region, 78% from the Northeast region, 33% from the South region, 50% from the Southeast and Central West regions, as shown in Tables 6 and 7.

Table 6 shows the literary indicators corresponding to administrative, financial, health, education, social, security, economic and environmental topics in municipal governments. In the "administrative topics", there is a predominance of audits by legality - checklist of legal compliance, contrary to the recommendations of the FCA. Despite the FCA efforts in cooperation agreement with the BDID and the creation of the SEGPS to develop auditing tools by performance for the CAs, we still see the use of auditing by legality. This, perhaps, is related to the public audit model adopted in Brazil - collegiate court, in which legal compliance prevails, as stated by Santiso (2007), Lino and Aquino (2017).

Similarly, the found at "administrative topic" is repeated in the "finance topic", "health topic" and "education topic" - predominance in auditing for legality. The indicators used by the auditors in the audits of the municipal governments' accountability, as shown in Table 6, represent pre-established IDs in the Fiscal Responsibility Law (LRF), with the diagnosis of complied not complied prevailing, that is, conformity.

As for the "social, security, economic and environmental topics", not unlike the others in Table 6, it is noticeable that the audits carried out are predominantly legal, and that there are no applications of techniques that contribute to the analysis of the effectiveness of spending by governments in audit processes. This finding reinforces the need to change the status from "recommendation" to "obligation" by the FCA to the CAs. This perception is in line with the suggestions of Lino and Aquino (2017), Silva et al. (2018) regarding the theme of this research being an agenda item in the discussions in the Brazilian national congress.

**Table 6 - Indicator's identification used in audits by sectors**

	Questionnaire	Respondents	N		NE		S		SE		MW	
			86%		78%		33%		50%		50%	
			Y	N	Y	N	Y	N	Y	N	Y	N
Administrative Topic	Performs Audits according to related Law	6		7		1			2		2	
	Uses indicators to measure the corruption degree		6		7		1			2		2
	Uses indicators to measure bureaucracy		6		7		1			2		2
	Uses indicators for servers/municipal citizens		6		7		1			2		2
	Another (Other) Indicator(s) that is (are) used		6		7		1			2		2
Financial Topic	Performs Audits according to Law (PAP, LBG, ABL)	6		7		1			2		2	
	Uses Debt Indicator	3	3	3	4	1			2		2	
	Uses Investment Indicator Uses		6		7		1		1	1		2
	Uses Server/municipal citizen indicator		6		7		1			2		2
	Another (other) indicator that is (are) used	1	5		7		1		1	1		2
Health Topic	Performs Audits according to related Law	4	2	7		1			2		2	
	Uses infant mortality indicator	3	3	2	5	1			1	1		2
	Uses longevity indicator	2	4		7		1		1	1		2
	Uses service quality indicator		6		7		1			2		2
	Uses indicator of service offer in basic health care		6		7		1			2		2
	Uses service/municipal citizen indicator		6		7		1			2		2
Other indicator(s) used	1	5	4	3	1				2		2	
Education Topic	Performs audit according to Law	6		7		1			2		2	
	Uses Server/municipal citizen indicator		6	1	6		1			2		2
	Uses literacy indicator	2	4		7		1	1	1			2
	Uses education development indicator	6		3	4	1			1	1		2
	Uses number of students x teacher indicator		6		7		1			2		2
	Uses adult educational indicator		6		7		1			2		2
Other indicator (s) used		6	2	5	1				2		2	

Social Topic	Performs Audits according to related Law	6		7		1		2		2	
	Uses server/municipal citizen indicator		6		7		1		2		2
	Uses human development indicator		6	3	4		1	1	1		2
	Uses employment and unemployment indicator		6		7		1		2		2
	Uses poverty band indicator		6		7		1		2		2
	Uses social programs indicator		6		7		1	1	1		2
	Uses income indicator		6		7		1		2		2
Other indicator(s) used		6	1	6		1		2		2	
Security Topic	Performs Audits according to related Law	2	4	6	1	1		2			2
	Uses server/municipal citizen indicator		6		7		1		2		2
	Uses murder indicator		6		7		1	1	1		2
	Uses traffic homicide indicator		6		7		1		2		2
Other indicator(s) used		6		7		1		2		2	
Economic Topic	Performs Audits according to related Law	6		7		1		2		1	1
	Uses server/municipal citizen indicator		6		7		1		2		2
	Uses municipal growth indicator		6	1	6		1	1	1		2
	Uses inflation indicator	3	3	3	4	1		1	1		2
	Uses public transportation quality indicator		6		7		1		2		2
	Uses Gross Domestic Product (GDP)	2	4	3	4		1	1	1		2
	Other indicator(s) used		6		7		1		2		2
Environmental Topic	Performs Audits according to related Law	6		7		1		2		1	1
	Uses server/municipal citizen indicator		6		7		1		2		2
	Uses sustainable development indicator		6		7		1	1	1		2
	Uses recycling and garbage collector indicator		6		7		1		2		2
	Uses per capita energy consumption indicator		6		7		1		2		2
	Other indicator(s) used		6		7	1			2		2

**Note:** N – North Region; NE – Northeast Region; S – South Region; SE – Southeast Region; MW – Midwest Region; Y - Yes; N - Not. **Source:** Prepared by the authors.

As for Table 7, there are the topics corresponding to "infrastructure" and "others". It is worth mentioning that the topic "others" was built based on the answers suggested by the auditors. Despite the indication of other answers by the respondents, even so, one can observe similarities with the other questions formulated by the authors. This tendency is possible when respondents are involved, interested and hopeful that the results will contribute to the maturing of discussions by other agents, as Groves and Valente (2003), Schuknecht and Afonso (2003) state.

**Table 7 - Indicator's identification used in audits by sectors, infrastructure and other**

Questionnaire	Respondents	N		NE		S		SE		CO	
		86%		78%		33%		50%		50%	
		Y	N	Y	N	Y	N	Y	N	Y	N
Infrastructure Topic	Performs legal compliance audit	6		7		1		2		1	1
	Uses server / user indicator		6		7		1		2		2
	Uses indicator of basic sanitation		6		7		1	1	1		2
	Uses performance indicator of works		6		7		1		2		2
	Uses paving indicator		6		7		1		2		2
	Other indicator (s) used		6		7		1		2		2
Others Topic	Uses server qualification indicator		6		7		1	1	1		2
	Uses Compliance Indicator Master Plan		6		7		1	1	1		2
	Uses internal control indicator		6	1	6		1	1	1	1	1
	Uses personnel expense indicator		6	1	6		1	1	1	1	1
	Other indicator (s) used	2	4	2	5	1			2	1	1

**Note:** Regions (N - North; NE - Northeast; S - South; SE - Southeast; MW - Midwest; Y - Yes; N - Not.

**Source:** Prepared by the authors.

Still on the results presented in Table 7, it can also be seen that the statements on the use of indicators contained in the "infrastructure topic" correspond to legal provisions in force in Brazil. Thus, again, it is ratified that the audit model used in public accounts by the CAs auditors is by legality.

In view of the results presented in Tables 6 and 7, the lack of studies on the use of PIs to measure the effectiveness of public spending is ratified (Lino and Aquino, 2017; Silva et al. 2018). In the same way, absence of a management tool to measure this same efficacy in the audits carried out by the Brazilian CAs. Too, the audits performed on local government accounts are exclusively to verify legal compliance. Similarly, it is not the practice of CAs to evaluate the effectiveness of budget resources in local governments. These findings suggest that the FCA, together with the National Congress, should discuss a Bill (PL) that addresses the issue in question.

Aving verified the absence of PIs in the audits carried out on the rendering of accounts of municipal governments, the study also analyzed all the opinions issued with indication of rejection in the period from 2011 to 2016, whose results are shown in Table 8.

**Table 8 - Relation between the opinions emitted with rejection indication of the accountability of municipal governments**

Region/State	Number of municipalities	Population	2016	2015	2014	2013	2012	2011
<b>∑ general</b>	<b>5.570</b>	<b>206.081.432</b>	<b>39</b>	<b>327</b>	<b>453</b>	<b>723</b>	<b>1.326</b>	<b>1.392</b>
<b>∑ North Region</b>	<b>450</b>	<b>17.707.783</b>	*	<b>5</b>	<b>27</b>	<b>85</b>	<b>84</b>	<b>96</b>
Rondônia	52	1.787.279	*	4	10	22	12	14
Acre	22	816.687	*	*	*	1	3	11
Amazonas	62	4.001.667	*	1	9	16	19	25
Roraima	15	514.229	*	*	*	2	7	13
Pará	144	8.272.724	*	*	*	*	*	*
Amapá	16	782.295	*	*	*	*	*	*
Tocantins	139	1.532.902	*	*	8	44	43	33
<b>∑ Northeast Region</b>	<b>1.794</b>	<b>6.915.936</b>	*	*	<b>43</b>	<b>84</b>	<b>191</b>	<b>310</b>
Maranhão	217	.954.036	*	*	*	3	14	34
Piauí	224	3.212.180	*	*	1	7	55	93
Ceará	184	8.963.663	*	*	*	*	*	5
Rio Grande Norte	167	3.474.998	*	*	*	*	*	9
Paraíba	223	3.999.415	*	*	2	50	45	66
Pernambuco	185	9.410.336	**	**	39	18	75	83
Alagoas	102	3.358.963	*	*	*	*	*	*
Sergipe	75	2.265.779	*	*	*	*	*	*
Bahia	417	15.276.566	*	*	1	6	2	20
<b>∑ South Region</b>	<b>1.191</b>	<b>29.439.773</b>	<b>24</b>	<b>62</b>	<b>105</b>	<b>99</b>	<b>173</b>	<b>79</b>
Paraná	399	11.242.720	24	53	79	63	15	9
Santa Catarina	295	6.910.553	*	9	16	11	50	11
Rio Grande do Sul	497	11.286.500	*	*	10	25	108	59
<b>∑ Southeast Region</b>	<b>1.668</b>	<b>86.356.952</b>	<b>15</b>	<b>252</b>	<b>222</b>	<b>303</b>	<b>530</b>	<b>548</b>
Minas Gerais	853	20.997.560	13	233	169	199	242	150
Espírito Santo	78	3.973.697	2	19	52	82	85	77
Rio de Janeiro	92	16.635.996	*	*	*	1	13	51
São Paulo	645	44.749.699	*	*	1	21	190	270
<b>∑ Midwest Region</b>	<b>467</b>	<b>15.660.988</b>	*	<b>8</b>	<b>56</b>	<b>152</b>	<b>348</b>	<b>359</b>
Mato Grosso Sul	79	2.682.386	*	*	*	13	23	24
Mato Grosso	141	3.305.531	*	7	6	9	23	9
Goiás	246	6.695.855	*	*	*	5	187	184
Federal District	1	2.977.216	*	1	50	125	115	142

Note: (\*) not located on municipalities' sites and CAs. (\*\*) Accountancy in Analyses by the Auditors

With a view to comparing the answers to the questionnaires applied, the study analyzed the causes that led the auditors to issue opinions indicating the rejection of accounts rendered by municipal governments, to the board of courts of accounts (body responsible for ratifying or not the opinions of the auditors) during the period from 2011 to 2016 (see table 8). It is worth mentioning that no mention or justification was found in the 4,260 opinions issued on performance indicators, corresponding to the 5,570 municipalities.

Table 8 also shows the opinions issued with indication of rejection by period, region and State, with their number of municipalities and population. Table 8 shows the opinions issued with indication of rejection by period, region and state, with their number of municipalities and population. Similarly, it is demonstrated that 13% of the Brazilian municipalities have their annual accounts with an indication of rejection, and that there are municipalities with managers accused of corruption in the judicial sphere that were never held accountable with an indication of rejection, as is the case in Pará, Amapá, Ceará, Rio Grande do Norte, Alagoas and Sergipe.

It is also possible to identify, in table 8, that in the year 2016 obtained the lowest number of opinions issued with indication of rejection by the auditors, specifically in the states of Paraná and Minas Gerais. However, 2012 and 2011 were the years that registered the most opinions with rejection by the auditors. É possível que esse achado seja consequência de serem anos que antecedem períodos eleitorais.

It is evident that the criteria used by auditors to issue opinions with indication of rejection is based on one of the models presented by Santiso (2007), in this case, the "legal model" - in which the verification of legality predominates. It is pertinent to state that the final judgment of the opinions issued by the auditors of Brazilian TCs is by colleges based on audit boards, known as the board model (Summa,1997; Santiso, 2007; Lino & Aquino, 2017). These opinions are subject to review by this council, which ratifies or not the original opinion. The decision of this council is judged by the legislative power, which has the prerogative to approve or not the government's accountability.

There is concentration of opinions emitted during 2011-2013, bigger in the Southeast Region, that may be a consequence of a joint effort of auditors due to the electoral year 2012, and that on average, the accountability is audited with a delay of two years. And that, only 13% of the Brazilian municipalities have their accountability with indication of rejection. This, corroborates with the research from Mafra (2014) that mentions there is a quantitative deficiency of auditors in the State Court of Accounts in Santa Catarina.

In the general context, the lack of specific norms on performance evaluation with the application of indicators in the rendering of accounts of municipal governments inhibits the practice of auditing in the identification of corrupt actions of some public managers. It is not enough to have recommendations, as suggested by the FCA and the Planning Secretariat, but a legal norm, so that municipal and state auditors apply performance evaluation indicators to certify or not the effectiveness of budgeting by municipal governments.

## **VI. Conclusions**

Given the research gap presented, the motivation for this study, a semi-structured questionnaire was used to identify which PIs are used by the auditors of the Brazilian CAs in audits of municipal government accountability. Next, was analyzed too the opinions issued with indication of rejection in the period from 2011 to 2016.

Based on the suggested proposal, the study provides discussions on the importance of using PIs in verifying the effectiveness of budget spending, by rescuing theoretical and empirical studies on the topic in question, as well as ratifies the lack of studies on, as recorded by Silva et al. (2018) Lima and Aquino (2017), what justifies this study proposal.

Regarding the PIs used in accountability audits by municipal governments, the study identified that there is no use of any PIs in the audit process by CAs' auditors, despite the efforts recorded by the FCA when it formed a partnership with the BDDI to develop PIs to be used in audits (TCU, 2011). This finding, ratifies the audit model classification presented by Santiso (2007) - audit by legal compliance, structured by board of auditors (Pollitt & Summa, 1997; Santiso, 2007; Lino & Aquino, 2017).

As for the analyses made in the opinions with indication of rejection of the accountability, by the auditors of the CAs, the study did not identify any mention of PIs in the 4,260 opinions with indication of rejection. Similarly, it suggests that audits be carried out with an average delay of two years. And that only 13% of the Brazilian municipalities have their rejected accounts by the auditors. Maybe, this quantitative deficiency of audits is related to the quantities of auditors in the CACs, as stated by Mafra (2014).

Therefore, the study concludes that the audit performed by CAs auditors on local government accountability is by legal compliance, that there is no use of PIs in the audit processes to assess the effectiveness of spending by municipal governments, that the audit modality applied by CAs is based on the auditors' fiscal council, and that the audit opinions issued are based on legality. And finally, the findings may explain the lack of prior identification of evidence of corruption in local government accounts. As a suggestion for further research, it is recommended to investigate the reflection of the opinions delivered (with or without rejection) to the municipal legislative power.

## **Conflicts of Interest**

The author declares no conflicts of interest regarding the publication of this paper.

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