

Effects of Public Governance on Economic Development of the Municipalities of the Metropolitan Region of Salvador

Gabriel Jesus De Souza

Universidade Federal da Bahia

Jorge Souza Bispo

Universidade Federal da Bahia

Julita Ribeiro Ferreira

Universidade Federal da Bahia

Abstract

This research aims to identify the effects of public governance on the economic development of municipalities in the Metropolitan Region of Salvador (RMS) from 2015 to 2018. The statistical analysis was used in order to measure the association between public governance and the economic development of the Municipalities, using the Municipal Management Effectiveness Index (IEGM) as a governance proxy and the Gross Domestic Product (GDP) as a proxy for economic development per capita at current Municipal prices. This study is justified by the important reflection on the costs and benefits of implementing public governance mechanisms at the municipal level. According to recent literature and premises of IFAC and Supreme Audit Institutions, the application of public policies efficiently and effectively contributes to an improvement in public management with regard to transparency, integrity and accountability, which can result in advances in municipal economic development. The results of this research corroborate these studies, as they demonstrate that public governance positively and significantly influences the economic development of the thirteen municipalities analyzed.

Keywords: Public Governance. Economic Development. Accountability. Municipalities of the State of Bahia.

1. Introduction

The literature indicates that Public Administration is the instrument through which the State performs public services in order to satisfy the needs of the community. Unlike a private company, which seeks profits, the State aims to achieve the common good. According to this reasoning, society is the main stakeholder for the State to efficiently use public resources. However, the implementation of public policies capable of meeting the demands and needs of the population is a challenge faced by public managers. Managers find it difficult to carry out their actions, due to the slowness of processes and the bureaucracy involved in carrying them out. Furthermore, the lack of transparency in how public resources are used makes social control difficult.

While democracy guarantees various rights to citizens, there is still a need for public organizations to find ways to achieve their goals, improve their results and strengthen management in the interest of society. Over time, society's demands have been changing. Globalization and fiscal and economic imbalances have encouraged society to improve social control mechanisms, requiring more efficient state action in pursuit of maximizing well-being and optimizing the use of public resources (Matias Pereira, 2010).

According to the Agency Theory, also called Representation Theory, the agency conflict arises when the agent acts aiming its interests at the expense of the principal's. Jensen and Meckling (1976) state that in Agency Theory, the principal delegates to the agent the management of their assets, so that they maximize results. In this relationship, between principal and agent, the problem is in the asymmetry of information, that is, the agent has access to data that the principal does not have and vice versa. In the public sphere, there is the problem of agency in the relationship between the principal, represented by the Society, and the agent, which is the State, represented by the Executive Branch (Hatch, 1997; Peres, 2007).

In the scope of Agency Theory, Public Governance - based on the pillars of corporate governance - has as one of its objectives to direct public policies efficiently and effectively in order to reduce the asymmetry of information between citizens (principal) and public managers (agents). In order to mitigate this conflict in the public sector, transparency, integrity and accountability emerge as governance mechanisms, as they provide citizens with information for monitoring the management acts of the public power (Matias-Pereira, 2010; Teixeira & Gomes, 2018).

Regarding liability for accountability, articles 70 and 71 of the Federal Constitution of Brazil (standard of mandatory reproduction in other federated entities) provide the general aspects of inspection, as well as the obligation of accountability by parts of the federated entities. In addition, these constitutional norms prescribe that the Legislative Branch, with the help of the Accounting Courts and the Internal Control System of the Branch, is responsible for the accounting, financial, budgetary, operational and patrimonial inspection of the federated entities regarding the legality and economy (Constitution of Brazil, 1988).

Economic development has different approaches, and can be analyzed under various dimensions and by various sciences such as economics, politics and sociology. Among some concepts, economic development can be related to social achievements, income balance, education, health, political participation, and environmental preservation, demonstrating the economic and social profile of a country or region (Saraiva, Santos & Martins, 2020).

In this context, with the need for austerity of public spending by governments and a public management oriented towards efficiency and effectiveness, added to the increase in the transparency of public accounts, it has been discussed whether the expenditures that occurred with the public governance structure in the Municipalities have effectively improving the economic development of the Municipalities and contributing to the generation of well-being in society.

Therefore, the following question arises: **What are the effects of Public Governance on the Economic Development of Municipalities in the Metropolitan Region of Salvador?** Therefore, the objective of this research is to identify the effects of public governance on the economic development of municipalities in the Metropolitan Region of Salvador (RMS) in the period from years 2015 to 2018. The association between Public Governance and the Economic Development of Municipalities will be analyzed, using the

Municipal Management Effectiveness Index (IEGM) as a proxy for Public Governance and the Gross Domestic Product (GDP) per capita at current municipal prices as a proxy for economic development.

This research is justified for three reasons: the analysis of the existence of the relationship between Public Governance and economic development of the municipalities; the verification of how the strengthening of governance in municipalities can give legitimacy to their managers in society, reducing conflicts of interest, by prioritizing and meeting the concerns of the populations involved, and the sample: the RMS, which has great economic influence in the country.

The RMS represents one of the six most important regional markets in Brazil, in addition to being responsible for almost 50% of the state's gross domestic product (GDP) – IBGE, 2020. The development of new information technologies, the growth of the international market, politics, and globalization, among other factors, have contributed to its relevance, with decisive impacts on these cities and on the lives of the population.

This research will provide a reflection on the evaluation of the costs and benefits of implementing Public Governance mechanisms at the municipal level, expanding scientific advances as it assesses how the chosen variables related to public governance influence the economic development of these municipalities. In addition, this study can serve as a guide for managers in defining public policies and effective management of public resources and also form a society better informed about the aspects inherent to public sector governance.

The present study has some limitations. The first is related to the use of proxies to measure the variables corporate governance and economic development. Another limitation highlighted by the literature is that the use of individual governance indices is not able to capture all its possible effects. Another limiting factor is that the choice of a non-probabilistic sample prevents the studies from being generalized. It is important to mention that there is no doctrinal consensus on what is involved in the concept of economic development, and finally, the unavailability of indicator data makes the period selected for analysis shorter than as desired.

The present work is divided into five sections, in addition to this introduction. In the second section, aspects of Public Governance, Accountability and Inspection of the Courts of Accounts are addressed, as well as a review of previous studies on the relationship between municipal indexes. In the third section, the methodological procedures are presented. The fourth presents the analysis of the research results, and the last section presents the final considerations.

2. Theoretical Reference

For a better understanding of the topic, this section has been divided into four parts. Initially, it addresses concepts of public governance. The second topic discusses transparency, accountability and inspection of the Municipal Accounting Courts. The third addresses the definition of economic development. Finally, the fourth topic ends the section by highlighting previous studies that address the relationship of performance indicators within the scope of municipalities.

2.1 Theory of Agency and Governance in the Public Sector

Literature demonstrates that the Public Administration has faced difficulties in carrying out its actions, due to bureaucracy and deficiencies in its processes. In order to improve public management, some managers have applied good administrative practices in the private sector. Many corporate governance principles are adapted to the governmental reality in order to obtain efficiency and better results, with the definition of processes, objectives and responsibilities. Therefore, the application of corporate governance in the public sector improves the quality of services offered to the population (Paludo, 2013).

According to Correia e Amaral (2008), Corporate Governance was conceived under the aegis of the Agency Theory, with the main purpose of solving conflicts of interest between the various agents interested in the company (principal-agent), in order to increase the organization's efficiency and generate value to the principal. Therefore, corporate governance starts from the problems of agency conflict and informational asymmetry, going beyond the conflict between capital providers and administrators.

In relation to the concept of Public Governance, the International Structure: Good Governance in the Public Sector, developed in conjunction with the International Federation of Accountants (IFAC) and the Chartered Institute of Public Finance and Accountancy (CIPFA), asserts that there is no universally accepted definition for the term “public sector governance”. However, for the purposes of the International Framework, governance in the public sector is defined as comprising political, economic, social, environmental, administrative and legal arrangements for the purpose of ensuring that intended outcomes for stakeholders are achieved.

Another concept is brought by the Brazilian Institute of Corporate Governance – IBGC, corporate governance “is the system by which organizations are managed, monitored and encouraged and is directly related to the organization's management and its relationship with stakeholders”. Good practices involve transforming principles into objective recommendations, aligning interests to preserve the organization's value, facilitating its access to resources and contributing to its continuity (IBGC, 2021).

In 2001, the International Federation of Accountants (IFAC) published study 13 – “Corporate Governance in The Public Sector: a Governing Body Perspective”, establishing governance principles and applications in the public sector. Public Governance is guided by principles that facilitate management, decision-making and accountability, which are: transparency, equity, accountability and corporate responsibility.

Also on Public Governance, the Accounting Court (2010) through its basic framework conceptualized it from four perspectives: (1) Center for Government, Society and State; (2) Public Policies, Federative Entities and Spheres of Power; (3) Organizational (applied to bodies and entities); and (4) Intraorganizational (applied to acquisitions, IT, people). It further states that Governance comprises the mechanisms of leadership, strategy and control in order to assess, direct and monitor the performance of public management of public entities, aiming at conducting public policies and providing public services of interest to society.

Along these lines, the Brazilian Institute of Public Governance – IBGP (2014) defines Public Governance as “the system that comprises the institutional mechanisms for the development of public policies that ensure that the results desired by citizens and other entities in public life, defined and achieved”.

Matias-Pereira (2010) teaches about the concept of the term governance in the public sector stating that:

The aspects frequently highlighted in this literature on governance are related to: the legitimacy of the public space being constituted; the distribution of power between those who govern and those who are governed; negotiation processes between social actors (procedures and practices, management of interactions and interdependencies that lead or not to alternative regulatory systems, establishment of networks and coordination mechanisms); and the decentralization of authority and functions linked to the act of governing (Matias-Pereira, 2010, p. 115)

Finally, from a legal point of view, the definition of Public Governance given by Decree No. 9.203, of November 22, 2017, which provides for the governance policy of the direct federal, autarchic and foundational public administration, is that it is a “a set of leadership, strategy and control mechanisms put in place to assess, direct and monitor management.

Through the concepts presented, Public Governance involves good practices, which lead to the transformation of principles into objective recommendations, with the aim of guaranteeing the interests of the principal, that is, of the society. Thus, the Agency Theory shows the importance of the role of Public Governance in aligning the interests between the agent and the principal, minimizing conflicts between them (Matias-Pereira, 2010).

2.2 Transparency and Accountability

To mitigate the conflict of agency in the public sector, transparency emerges as a governance mechanism, as it provides citizens with information for monitoring the management acts of the public branch. In Public Administration there is information that must be disclosed, because a law requires it. However, the provision of information that goes beyond what is mandatory by law, voluntary disclosure is of great importance for social control, as it gives citizens the opportunity to better monitor and evaluate the management of their municipalities (Prado, 2009; Paludo 2013).

Therefore, transparency involves making information available to interested parties, which goes beyond what is established by laws and regulations, and this contributes to increasing trust in public management. With access to information, citizens are better able to exercise social control over public policies. This government-citizen relationship creates a responsibility for both parties in the provision of public services, and in the possible occurrence of corrective practices. This monitoring of public policies by society helps to promote better results, to monitor compliance with the decisions taken; and also provide broad access to the process of policy-making and public services (OECD, 2011).

Accountability is a fundamental principle of governance. The term accountability can involve, among other concepts, responsibility, transparency and the obligation of accountability. In this way, managers have the obligation to be accountable to society, that is, on how public resources are being used, as they are responsible for their expenditure and, therefore, have to assume the consequences of their acts and also omissions (Pinho & Sacramento, 2009).

Accountability is also related to the principle of Corporate Responsibility, as it shows the importance of the responsibility that public agents have to ensure the sustainability of organizations to ensure their continuity, observing social and environmental issues in their attitudes. Thus, corporate governance has

been fundamental to the government as an important management instrument through transparent actions, encouraging the modernization of Public Administration.

For Tavares and Romão (2021), accountability is an instrument of social control, and is linked to government obligations in rendering accounts to society, from which society can demand government transparency and hold it accountable in case of refusal to render accounts. In this context, accountability takes on a catalytic nature of social control, becoming essential in the relations between government and society (Tavares & Romão, 2021; Prado, 2009).

In the context of Public Governance, Matias-Pereira (2010) points out that the World Bank defined as dimensions for good governance: “the administration of the public sector; the legal framework; participation and accountability; and information and transparency”. It is imperative to highlight that this integration of good governance and accountability was duly emphasized by IFAC (2014), in its International framework, by highlighting that

Good governance requires a qualitative approach, not a mindless quantitative one. It requires integrity, objectivity, transparency, and accountability, built on a foundation of intellectual honesty. These principles are already embedded throughout this Framework, but it should be read with these fundamentals firmly in mind. (IFAC, 2014).

Following the aegis of the mandatory Accountability by the entities of the Federation, the article 70 of the Federal Constitution of Brazil, deals with the necessity of control of the Public Power from different angles of action, and, it applies to all the federative entities. (Abraham, 2018). Abraham (2018) states that fiscal transparency in accountability has been favored by infra-constitutional legislation, such as the LRF (Fiscal Responsibility Law) and LAI (Access to Information Law), which allow any citizen to monitor budgetary and financial information on a daily basis, and to obtain information on the application of public resources on websites.

With regard to External Control, although the entitlement to this function belongs to the Legislative Branch (art. 70, CF 88), considering the technicality of the inspection activity, the Constituent Assembly defined that the Accounting Courts are auxiliary bodies. Therefore, in harmony with the federative pact and the provisions contained in art. 31 of CF/88, in the Municipalities, the holder of external control is the City Council, with the assistance of the Accounting Courts of the respective States or the Court of Accounts of the Municipalities.

In this way, the Accounting Courts of the State or of the Municipalities is competent to oversee the application of resources in the Municipality, according to the constitutional prescription. In this sense, in order to support society through an instrument that contemplated a vision of municipal public management, the Municipal Management Effectiveness Index (IEGM) was created by the Accounting Courts of the State of São Paulo (TCE-SP), being disseminated to the other Accounting Courts in Brazil (TCM BA, 2017).

2.3 Economic Development

Different views have been discussed over the past few years about the nature of economic development. Several authors claim that economic growth is synonymous with economic development. Another current focused on empiricism understands that growth is an indispensable condition for economic development,

but it is not a sufficient condition, with economic development being an evolution of society seeking to improve its standards of well-being (Baracho & Frauvelle, 2012; Oliveira, 2002).

Silva and Crisostomos (2019) state that “one of the factors proposed as capable of promoting municipal socioeconomic development is the correct performance of public administration to dynamize priority areas”. The authors emphasize that the efficiency of public management may be related to the optimal combination of resources in a production process, aiming to enhance the result.

In this conception, Oliveira (2002) adds that economic development must be seen as a complex process of economic, political and, mainly, human and social changes and transformations. The author emphasizes that economic development is the economic growth transformed to meet various human needs, such as health, infrastructure, leisure, food, among others.

Berlinck and Cohen (1970) differentiate between economic growth and economic development. According to the authors, economic growth means an increase in the real income of an economy, understanding that; such an increase does not affect the standard of living of the population as a whole. When there is economic development, this increase in wealth reaches all segments of the population in a homogeneous way or benefits a substantial portion of the population.

Along these lines, Caetano, Araújo & Khan (2019) state that economic development is generally confused with economic growth, which can be measured in terms of income or quality of life and well-being. Income growth can be obtained through GDP and GDP per capita. As for quality of life and well-being, the authors indicated the assessment through the gains evidenced by the Human Development Index (HDI). The authors also emphasize that income or economic growth is just a spectrum of improvement in the population's quality of life and well-being, with the term “growth” being commonly used as a synonym for economic development.

Therefore, although there are many concepts and definitions about the expression “economic development”, there is no doctrinal consensus regarding what is effectively economic development. However, as discussed in this section, several authors claim that economic development can be quantitatively measured by several attributes and variables. Although this measurement is possible, there is a limitation in identifying and capturing the effects of investments in public governance on the variations in economic development over time, as well as the impacts of public management practices.

2.4 Performance Indicators in Municipalities

Pacheco (2009) describes that the contributions of measuring results in the public sector are important for transparency. Although performance and performance indicators can present problems in their development, they are extremely useful to subsidize society with information that allows social control. In addition, the indicators provide data that help the public manager in decision making. In this sense, Pacheco (2009) states that:

the measurement of results in the public sector is one of the pillars of the reforms underway in several countries in the last two or three decades, being the basis for other innovations such as agency, contractualization of results, variable remuneration for performance, partnerships, State-network and others. The controversies surrounding the application of this management tool in the public

sector are intense – both among supporters and among critics and defenders. (Pacheco, 2009).

Several studies have sought to discuss the associations between some indicators that measure results of public entities in Brazil. It is important to highlight some of these indicators: quality of available public information, levels of government transparency, efficiency of public management, compliance with fiscal limits, targets and risks and socioeconomic characteristics of the Municipalities (Cruz, Ferreira, Silva & Macedo, 2012; Sousa, Lima, Nascimento, Peter, Machado & de Oliveira Gomes, 2013; Bezerra Filho, Neto & Aguiar, 2018; Cruz & Afonso, 2018; Da Silva, 2020).

Cruz *et al.* (2012) analyzed the level of transparency of public management information disclosed on the electronic portals of large Brazilian municipalities, as well as some socioeconomic characteristics related to the level of transparency. These levels of transparency in public management were raised on the electronic portals of the largest Brazilian municipalities through the Municipal Public Management Transparency Index (ITGP-M). The results provided that the municipalities showed a level of transparency of information on municipal public management incompatible with their socioeconomic development, since the investment in one period can provide effects in future periods and its effects are not captured and measured.

Da Silva (2020) conducted a study to compare the IEGM/TCESP of São Paulo Municipalities between the years 2014 to 2017. The studies showed that the IEGM can be considered an important instrument for the assessment of public management, for the expansion and improvement of external control, social control and evaluation of public managers. Bezerra Filho *et al.* (2018), investigated the Municipal Management Effectiveness Index (IEGM), in the Education dimension (I-Educ), adopted by the Brazilian Accounting Courts. The study demonstrated the need to deepen the study of management analysis indices in order to verify whether managers are fulfilling their role and reaching social objectives, offering a critical but constructive view of the “education” effectiveness indicator used by the Accounting Courts.

The research by Sousa *et al.* (2013) aimed to analyze the effects of compliance with the provisions of the LRF on the economic development of municipalities. The Fiscal Responsibility Index (IRF) and the FIRJAN Municipal Development Index (IFDM) were used as a proxy to assess the degree of fiscal responsibility of the Municipalities and the degree of municipal development, respectively. The sample consisted of data from 373 municipalities, analyzed over a five-year period (2005-2009). The results showed that compliance with the LRF regarding indebtedness, cash sufficiency, personnel expenses and primary surplus provide a significant improvement in the economic and social development of the municipalities.

In this line, Silva and Bruni (2019) presented socioeconomic variables that are determinant for passive public transparency in Brazilian municipalities based on the Transparent Brazil Scale (EBT). The results identified a low index of passive public transparency in the municipalities and a significant correlation between passive public transparency and the variables education of the population, per capita income and age of the population.

Cruz and Afonso (2018) researched the relationship between indicators of compliance with targets and fiscal limits with variables representing the pillars of planning, transparency and control. The study used data from 282 Brazilian municipalities, with a population of more than 100,000 inhabitants, in the period

from 2010 to 2013. The results indicated that the fiscal indicators did not present significant relationships with each other and revealed a reduced association with the other variables representing fiscal management. The study by Silva and Crisóstomos (2019) is also noteworthy, which analyzed the effects of fiscal management and the efficiency of public management on municipal socioeconomic development. In this study, the authors evaluated a set of 184 municipalities in Ceará, from 2007 to 2013. The results showed that fiscal management and the efficiency of public management positively affect municipal socioeconomic development. Adding that the public manager must seek to improve the efficiency of their management observing the fiscal rules.

Given the above, it appears that the relationship between performance indicators and compliance with fiscal targets and economic development has been widely explored in Brazilian literature, but little has been dealt with the effects of Public Governance itself on economic development. In general, the literature shows a positive aspect of the relationship between a good structure of public management and several socioeconomic indicators, as well as compliance with fiscal rules.

From this perspective, the following research hypothesis was constructed:

H₀ – Public Governance structures are not associated with the Economic Development of Municipalities in the Metropolitan Region of Salvador

3. Methodology

This section has been divided into two parts. The first refers to the sample, data collection and data selection for the regression analysis used in the research. The second topic addresses the concepts and ways in which the dependent variable and the independent variables were constructed, the justifications for their choices, as well as the regression model chosen.

3.1 Sample and Data Collection

The sample of this research consists of the municipalities of the RMS, belonging to the State of Bahia. Established through Complementary Law No. 14, of 1973, the RMS comprises thirteen municipalities: Itaparica; Camaçari; Madre de Deus; Pojuca; Mata de São João; Vera Cruz; Salvador; Candeias; Lauro de Freitas; Simões Filho; São Francisco do Conde; São Sebastião do Passé; and Dias d'Ávila (IPEA, 2015) and according to the profile of the State of Bahia, on the electronic portal of the Brazilian Institute of Geography and Statistics (IBGE, 2020) in the period from 2015 to 2018, totaling 52 observations.

Data collection was carried out through consultations on the official websites of each municipality, on the Transparency Portal of municipal governments, on the TCM-BA and IBGE websites. Statistical methods will be used for the treatment of data. Therefore, the data selection process was structured in five subsequent methodological steps, as shown in Figure 1:

1 st Step	<ul style="list-style-type: none"> Constitution of the research universe, having as its base the 13 municipalities in the State of Bahia of RMS;
2 nd Step	<ul style="list-style-type: none"> Collection of data from IEGM in the Directory of IEGM/TCM 2016, report of managerial information, published by TCM-BA;
3 rd Step	<ul style="list-style-type: none"> Collection of data from IGM-CFA in the website of CFA;
4 th Step	<ul style="list-style-type: none"> Collection of data of the opinions of TCM-BA in the website of the Accounting Court;
5 th Step	<ul style="list-style-type: none"> Preparation of a Construct referent to Transparency level based in the methodology of the ITMPE index in the websites of the City Hall

Figure 1 Steps of Methodological Procedures

Source: Prepared by the authors

3.2 Dependent and Independent Variables

To assess the economic development of the municipalities, the GDP per capita of the municipalities at current prices was used as a proxy. GDP at current prices measures, in monetary values, the sum of all final goods and services produced by a given municipality in a year due to its population (IBGE, 2020).

To empirically test the effects of governance on economic development, the GDP per capita of the municipality that represents the economic development of the municipalities was used as a dependent variable. Thus, the explanatory variables were: the IEGM index, the CFA index, the PAR (Opinions of the TCM-BA) and TA (Transparency), whose justifications for the choices are shown in table 1.

Therefore, in this study, the following regression model was used:

$$PIB = \beta_0 + IEGM\beta_1 + CFA\beta_2 + PAR\beta_3 + TA\beta_4 + \epsilon_i$$

Table 1. Independent Variables used

Variable	Abbreviation	Calculation	References	Expected Relation
Municipal Management Effectiveness Index	IEGM	Index Note	Bezerra Filho et al (2018), De Carvalho et Al (2021)	+
CFA Municipal Governance Index (IGM-CFA)	CFA	Index Note	Rodrigues (2021)	+
TCM-BA Opinions	PAR	Dummy variable coded at 1 if the opinion was approved, zero if the opinion was rejected	Adapted from Ramos and Martinez (2006)	+
Openness	TA	Construct based on the methodology of the ITMPE index	TCE-PE (2020)	+

Source: Prepared by the authors

In order to fulfill the research objectives, the IEGM variable was used as a proxy to measure public governance, and the other variables were used as control variables in this research.

The IEGM is an instrument that aims to measure the effectiveness of the administrative management of city halls in the year prior to its application. This index is defined based on the analysis of the results of policies and actions taken by the municipalities in seven main areas of public interest. Those areas are:

Education, Health, Planning, Fiscal Management, Environment, Protection of Citizens and Governance in Information Technology (IRB, 2015, TCERJ, 2020).

In the research of Bezerra Filho *et al.* (2018) it was considered that there is an increasing sequential evolution between the IEGM scores: C, C+, B, B+ and A. Based on this study, the thematic indicators were sequentially converted, 1 for the lowest grade (C) and 5 for the highest grade (A), as shown in Table 2:

Table 2. Value assigned to IEGM indicator

Note	Range	Criteria	Value assigned for numeric parameter purposes
A	Highly Effective	IEGM with at least 90% of the maximum grade and at least 5 component indexes with grade A	5
B+	Very Effective	IEGM between 75.0% and 89.9% of the maximum grade	4
B	Effective	IEGM between 60.0% and 74.9% of the maximum grade	3
C+	In the adjustment phase	IEGM between 50.0% and 59.9% of the maximum grade	2
C	Low level of suitability	IEGM less than 50%	1

Source: Adapted from Bezerra Filho *et al.* (2018)

According to Rodrigues (2021), “the CFA Municipal Governance Index (IGM-CFA) measures the good municipal governance practices, which guide managers with relevant information about the municipality's performance”. Obtained through secondary calculations by the STN, IBGE, UNDP and DATA SUS, the IGM-CFA is based on a construct of public governance in Brazilian municipalities based on three dimensions: Finance, Management and Performance, differing from other indexes that use only one dimension.

The variable PAR (Opinions of TCM-BA) measures the evaluation of the municipality by the external control agency in aspects of government planning instruments, analysis of Financial Statements applied to the Public Sector, instruments of fiscal transparency and constitutional obligations, among others. This assessment is equivalent in the private sphere to audit quality adapted from the model of Ramos and Martinez (2006), being measured according to the type of decision of the Accounting Court, if approved (with or without reservations) it is calculated 1, if rejected, 0.

The adoption of the control carried out through the Court of Accounts of the Municipalities of the State of Bahia (TCM-BA) is justified as it is the constitutional body for external control of the management of municipal public resources in the State of Bahia, which provides assistance to the Legislative Branch. Under the terms of the Federal Constitution of 1988, of the Constitution of the State of Bahia and of Complementary Law no. 06, of December 6, 1991, the TCM-BA is responsible for the opinions of the public accounts of the Municipalities of the State of Bahia.

The variable TA (Transparency) is considered as one of the pillars of Corporate Governance, as indicated by the OECD (2011), Matias-Pereira (2010) and Teixeira and Gomes (2018), being operationalized in this research through the construct based on the ITMPE methodology (Transparency Index of the Municipalities of Pernambuco (ITMPE) carried out by the TCE-PE. This survey is carried out by checking the official websites and transparency portals of all city halls, as shown in Table 3.

Table 3. Methodology for Elaboration of the Transparency Variable Construct

Criteria of the employee	Value assigned for numeric parameter purposes
The Municipality has an official website on the Internet, which provides information of collective or general interest.	1
The website contains a content search tool that allows access to information in an objective, transparent and clear way.	1
There is a link to access the specific section (Transparency Portal) on the Municipality's official website.	1
Allows you to monitor the publication of income and expenses in real time.	1
The entity discloses information concerning bidding procedures, carried out and in progress (Bidding Process number, Modality, object and value).	1
The entity discloses information concerning the contracts entered into (Contract number, contractor identification (CNPJ), object, value and amendments).	1
The entity discloses information on fiscal transparency instruments (PPA, LDO, LOA, RGF, RREO, Rendering of Accounts and prior opinion).	1
There is individual remuneration based on the name of the public agent or civil servant.	1
A record of the entity's competencies and organizational structure is available.	1
There are general data for monitoring programs, actions, projects and works of bodies and entities.	1
Maximum Total Achieved	10

Source: Adapted from the ITMPE methodology (2020)

4. Results Analysis

The multiple regression analysis was performed using the R program, and aimed to verify which factors influence GDP, the dependent variable of the regression. With the results obtained, the regression indicates the greatest trends that the analyzed variables present. Initially, we may observe a positive and significant relationship between three chosen independent variables with GDP. Only the variable Opinions of the TCM-BA had little explanatory power in relation to the dependent variable.

In order to meet the proposal of this multiple regression analysis, the database consisted of 52 observations, considering the period from 2015 to 2018. Table 4 shows the results of the descriptive statistics of the analyzed variables: GDP (Gross Domestic Product), IEGM (Municipal Management Effectiveness Index), CFA (CFA Municipal Governance Index), PAR (TCM-BA Opinions) and TA (Transparency):

Table 4. Descriptive Statistics of Variables

GDP	IEGM	CFA	PAR	TA
Min.: 8847	Min.:1,000	Min.: 3,270	Min.: 0,000	Min.: 0,000
1st Qu.: 20571	1st Qu.: 2,000	1st Qu.: 3,825	1st Qu.: 1,0000	1st Qu.: 6,000
Median: 25069	Median: 2,000	Median : 4,345	Median.: 1,0000	Median.: 8,000
Mean: 46328	Mean: 2,058	Mean:4,501	Mean: 0,9231	Mean.: 6,923
3rd Qu.: 39873	3rd Qu.: 2,000	3rd Qu.:4 .893	3rd Qu.: 1,0000	3rd Qu.: 8,000
Max.: 296621	Max.: 4,000	Max.: 6,960	Max.: 1,0000	Max.:10,000

Source: Prepared by the authors

Regarding the sample data, it appears that the mean and median were: per capita GDP; 46328, 25069, respectively; of the IEGM; 2.0 and 2058, respectively; of the CFA; 4,345 and 4,501, respectively; of TA 8.0 and 6,923, respectively. Furthermore, it is observed that the minimum values of PAR and TA were zero. In the case of the variable Opinions of the TCM-BA, this fact is due to the rejection of the public accounts of the municipalities of Camaçari and Itaparica (2015), Pojuca (2016) and Itaparica (2018). As for the Transparency variable, the municipality of Itaparica did not reach the minimum score for transparency based on the ITMPE methodology.

Table 5. Correlation Matrix of research variables

Variables	IEGM	CFA	PAR	TA
IEGM	1,00000000	0,2079421	0,03289758	0,2729841
CFA	0,20794210	1,00000000	0,16742819	0,4903489
PAR	0,03289758	0,1674282	1,00000000	0,3765593
TA	0,27298405	0,4903489	0,37655926	1,00000000

Source: Prepared by the authors

Given the assumption of multicollinearity, as shown in table 5, a weak and positive correlation between the explanatory variables is noted in the correlation matrix: IEGM, CFA, PAR and TA. Based on heteroscedasticity tests (studentized Breusch-Pagan, p-value=0.5148 and Goldfeld-Quandt, p-value=0.843) and after corrections for violations of the normality of residues presented in the tests (Kolmogorov-Smirnov, p-value < 2.2e-16 and Shapiro-Wilk, p-value= 6.045e-10), the normality of the residuals and homoscedasticity, assumptions of MQO, were demonstrated through the Box-Cox transformation.

Table 6 shows the results of the MQO multiple linear regression, considering the dependent variable of the GDP per capita:

Table 6. Multiple Linear Regression

	Ratio:	Error	t value	Pr(> t)
Intercept	1,597e+00	9,039e-04	1766,453	< 2e-16 ***
IEGM	5,789e-04	2,304e-04	2,513	0,01546 *
CFA	-5,518e-04	1,844e-04	-2,993	-0,00439 **
PAR	7,267e-04	6,038e-04	1,204	0,23473
TA	1,481e-04	7,637e-05	1,940	0,05845 ·
F	4.75			
Prob > F	0,002662			
R2	0,2879			
Number of observations	52			

., *, **, *** significant at 10%, 5%, 1% and 0.1%, respectively. The model has been fixed by the Box-Cox transformation.

Source: Prepared by the authors

Table 6 presents the statistics of the estimated model with a total of 52 observations. The coefficient of determination R² (which measures the goodness of fit of the regression line) is 0.2879, suggesting that the independent variables explain about 28.79% of the variation in GDP per capita. The result of the coefficient of the variable of interest IEGM indicates a positive association, with statistical significance at the 0.1% level, therefore the null research hypothesis is rejected, confirming the evidence from agency theory and literature by indicating that the governance structure public is important and positively influences economic development.

It can also be seen that the CFA variable, at the 1% level, is statistically significant, having a negative association with GDP per capita. This inverse relationship needs further analysis regarding the construction of this indicator, considering that this variable represents a broad governance index and, therefore, according to the literature, it should present a direct relationship with the dependent variable of the GDP per capita.

In addition, it is clear that the TA variable has a statistically significant level of 10%, suggesting that transparency, a pillar of corporate governance, positively affects the economic development of the analyzed municipalities, so this result is in line with empirical evidence. Finally, according to table 6, the PAR variable has little explanatory power, being considered statistically insignificant.

Therefore, corroborating the literature, it can be stated that the three variables, IEGM, CFA and TA, are good indicators to demonstrate how the public governance of municipalities reflects positively on economic development (BEZERRA FILHO et al, 2018; SILVA & CRISÓSTOMOS, 2019; DE CARVALHO et al, 2021).

5. Final Considerations

This research aims to identify the impacts of public governance on the economic development of municipalities of RMS from 2015 to 2018. The association demonstrated in this study through the analysis of correlations can contribute to decision-making within the Municipal Government regarding the cost and benefit of implementing a solid Public Governance structure. This is relevant in view of its effects on social control, accountability, transparency and economic development of municipalities, as discussed in this work and in harmony with previous studies and with the premises of IFAC and the Supervisory Entities.

In light of the literature, it is argued that good governance is essential for the economic development of a municipality. Through the results of this research, it was verified that there was an economic growth in the thirteen municipalities surveyed. The results of the study indicate that the Municipal Management Effectiveness Index (IEGM) positively and significantly affects the GDP per capita of the Municipalities, which corroborates previous studies and empirical literature. This fact shows that the public governance structure influences economic development, rejecting the null hypothesis of the research. This reasoning can be applied to the transparency variable, as this is a requirement of public governance.

As a limitation of the research, there was a lack of data from some municipalities in 2016, the first year of the assessment of the TCM-BA on the IEGM indicator in Bahia. Linked to this, there is also the lack of an IEGM and CFA indicator before 2015 and the possibility of omitting variables with explanatory power in the model used. It should be noted that the effects of public governance can be captured more efficiently over time, in a panel, as there is the possibility of observing the behavior and structural changes of the variables used.

The results presented refer exclusively to the sample and the period analyzed, and cannot be generalized to other municipalities or federative entities, considering the choice of a non-probabilistic sample and specific characteristics of the municipalities studied. In addition, there is the difficulty of capturing and measuring the effects of public investments and associating them with defined periods of research, as they may exceed indefinite future periods.

The main contribution of this study is the highlight that this work makes to the role of public governance in municipalities and its impacts on municipal economic development. It is recommended for future research the use of different statistical models in order to establish a significant association between other variables related to governance over time and its effects. It is also suggested that comparative studies of different models of economic development in other cities with a longer time span are suggested. Another fertile field for research is related to the use of different proxies obtained in international studies to measure economic development and public governance so that the topic can be deepened and developed in the academic sphere.

7. REFERENCES

- Abraham, M. (2018). *Curso de direito financeiro brasileiro*. 5th ed., current and amplified review – Rio de Janeiro: Forense.
- Baracho, Hertha Urquiza; Fauvrelle, Thiago A (2012). *Desenvolvimento Econômico: O Conceito Histórico na Constituição Brasileira*. Recovered from <http://www.publicadireito.com.br/artigos/?cod=483101a6bc4e6c46>. Accessed on 14 July 2021.
- Berlinck, M. T.; Cohen, Y. *Desenvolvimento econômico, crescimento econômico e modernização na cidade de São Paulo*. RAE-Revista de Administração de Empresas, v. 10, n. 1, p. 45-64, 1 jan. 1970. Recovered from <https://bibliotecadigital.fgv.br/ojs/index.php/rae/article/view/40470>. Accessed on 05 December 2020.
- Bezerra Filho, J. E., Neto, A. A., & Aguiar, M. C. *Avaliação do Índice de Efetividade da Gestão Municipal utilizado pelos Tribunais de Contas (IEGM): uma análise da dimensão educação*. Recovered from http://legado.fucape.br/_public/producao_cientifica/2/Avalia%C3%A7%C3%A3o%20do%20%C3%8Dndice%20de%20EfetividadeAPB1061.pdf. Accessed on 05 December 2020.
- Brazil. Constitution of the Federative Republic of Brazil of 1988. http://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm. Accessed on 20 July 2021.
- Brazil. Decree no. 9,203, dated 22 November 2017. It refers to the governance policy of the direct, autarchic and foundational federal public administration. Recovered from http://www.planalto.gov.br/ccivil_03/_ato2015-2018/2017/decreto/d9203.htm. Accessed on 20 July 2021.

Brazil. Federal Accounting Court (2014). *Referencial básico de governança aplicável a órgãos e entidades da administração pública*. Version 2 - Brasília: Federal Accounting Court, Secretariat of Planning, Governance and Management. Recovered from <https://portal.tcu.gov.br/data/files/84/34/1A/4D/43B0F410E827A0F42A2818A8/2663788.PDF>. Accessed on 05 December 2020.

Caetano, F. A. D. O., Araújo, J. A. D., & Khan, A. S. (2019). *Fatores condicionantes do desenvolvimento socioeconômico na América Latina: uma análise sob a perspectiva do PIB e dos indicadores globais de governança*. *Interações* (Campo Grande), 20(1), 95-109. Recovered from <https://www.revistas.usp.br/rege/article/view/36642>. Accessed on 20 December 2020.

Correia, LF.; & Amaral, HF. (2008). *Arcabouço teórico para os estudos de governança corporativa: os pressupostos subjacentes à teoria da agência*. *Revista de Gestão USP*, São Paulo, v. 15, n. 3, p. 1-10, July-September. Recovered from <https://www.revistas.usp.br/rege/article/view/36642>. Accessed on 05 December 2020.

Cruz, C. F. D., & Afonso, L. E. (2018). *Gestão fiscal e pilares da Lei de Responsabilidade Fiscal: evidências em grandes municípios*. *Revista de Administração Pública*, 52(1), 126-148. Recovered from: <https://www.scielo.br/pdf/rap/v52n1/1982-3134-rap-52-01-126.pdf>. Accessed on 05 December 2020.

Cruz, C. F., Ferreira, A. C., da Silva, L. M., & da Silva Macedo, M. Á. (2012). *Transparência da gestão pública municipal: um estudo a partir dos portais eletrônicos dos maiores municípios brasileiros*. *Revista de Administração Pública*, 46(1), 153-176. Recovered from <https://www.scielo.br/pdf/rap/v46n1/v46n1a08>. Accessed on 05 December 2020.

Da Silva, G. D. O. (2020). *O Índice de Efetividade da Gestão Municipal com indutor do aperfeiçoamento da gestão pública nos municípios paulistas*. *Cadernos*, 1(5), 65-81. Recovered from <https://www.tce.sp.gov.br/epcp/cadernos/index.php/CM/article/view/102>. Accessed on 05 December 2020.

De Carvalho Costa, O. M., de Araújo Souza, K. M., De Carvalho, E. M., & Siena, O. (2021). *Análise do índice de efetividade de gestão municipal (IEGM) dos municípios do estado de Rondônia no período de 2015-2016*. *Revista de Administração de Roraima-RARR*, 10. Recovered from <https://revista.ufrb.br/adminrr/article/download/5717/pdf#:~:text=O%20desempenho%20do%20estado%20de,faixa%20de%20%E2%80%9CBaixo%20N%C3%ADvel%20de>. Accessed on 14 June 2021.

Hatch, M. J. (1997). *Organization Theory: Modern Symbolic And Postmodern Perspectives*. New York: Oxford University Press, 1997.

IBGC. Instituto Brasileiro de Governança Corporativa (2021). Recovered from <https://www.ibgc.org.br/conhecimento/governanca-corporativa>. Accessed on 20 July 2021.

IBGP. Instituto Brasileiro de Governança Pública – IBGP (2014). *Princípios do IBGP para Governança Pública*. Recovered from <https://forum.ibgp.net.br/wp-content/uploads/2017/05/Princ%C3%ADpios-do-IBGP-para-Governan%C3%A7a-P%C3%BAblica.pdf>. Accessed on 20 June 2021.

IFAC. International Federation of Accountants (2014). *International Framework: Good governance in the public sector*. Available on <https://www.ifac.org/system/files/publications/files/International-Framework-Good-Governance-in-the-Public-Sector-IFAC-CIPFA.pdf>. Accessed on 05 December 2020.

- Jensen, M; Meckling, W. (1976). Theory of The Firm: Managerial Behavior, Agency Costs And Ownership Structure. *Journal Of Financial Economics*.
- Matias-Pereira, J. (2010). *A governança corporativa aplicada no setor público brasileiro*. *Administração Pública e Gestão Social*, v. 2, n. 1, p. 109-134.
- OECD. Organization for Economic Co-Operation and Development (2011). *Avaliação da OCDE sobre o Sistema de Integridade da Administração Pública Federal Brasileira: Gerenciando riscos por uma administração pública mais íntegra*. Recovered from https://www.legiscompliance.com.br/images/pdf/avaliacao_integridade_brasileira_ocde.pdf. Accessed on 20 July 2021.
- Oliveira, G. B. (2002). *Uma discussão sobre o conceito de desenvolvimento*. *Revista da FAE*, 5(2). Recovered from <https://revistafae.fae.edu/revistafae/article/view/477>. Accessed on 05 December 2020.
- Pacheco, R. S. (2009). *Mensuração de desempenho no setor público: os termos do debate*. *Cadernos Gestão Pública e Cidadania*, v. 14, n. 55. Recovered from: <https://bibliotecadigital.fgv.br/ojs/index.php/cgpc/article/view/44208>. Accessed on 05 December 2020.
- Paludo, Augustinho Vicente (2013). *Administração Pública: teoria e questões*. Rio de Janeiro, ed. 4, Elsevier.
- Peres, U. (2007). *Custos de Transação e Estrutura de Governança no Setor Público*. *Revista Brasileira de Gestão de Negócios*. Recovered from <https://www.redalyc.org/pdf/947/94792403.pdf>. Accessed on 14 July 2021.
- Pinho, J. A. G. D., & Sacramento, A. R. S. (2009). *Accountability: já podemos traduzi-la para o português?* *Revista de administração pública*, 43(6), 1343-1368. Recovered from https://www.scielo.br/scielo.php?pid=S0034-76122009000600006&script=sci_abstract&tlng=pt. Accessed on 05 December 2020.
- Prado, O. (2009). *Governo eletrônico, Reforma do Estado e transparência: O governo eletrônico no Brasil* (Doctoral dissertation). Recovered from: <http://bibliotecadigital.fgv.br/dspace/handle/10438/2501>. Accessed on 20 December 2020.
- Saraiva, J. D. S. (2019). *Crescimento e desenvolvimento econômico dos municípios do estado do Pará no período 2005-2016*. Recovered from <http://bdta.ufra.edu.br/jspui/handle/123456789/1014>. Accessed on 14 July 2021.
- Silva, C. R. M. D., & Crisóstomo, V. L. (2019). *Gestão fiscal, eficiência da gestão pública e desenvolvimento socioeconômico dos municípios cearenses*. *Revista de Administração Pública*, 53(4), 791-801. Recovered from https://www.scielo.br/scielo.php?script=sci_arttext&pid=S0034-76122019000400791&tlng=pt. Accessed on 05 December 2020.
- Silva, W. A. Oliveira & Bruni, A. L. (2019). *Variáveis socioeconômicas determinantes para a transparência pública passiva nos municípios brasileiros*. *Revista de Administração Pública*, 53(2), 415-431. Recovered from https://www.scielo.br/scielo.php?script=sci_arttext&pid=S0034-76122019000200415. Accessed on 05 December 2020.
- Sousa, P. F. B. de, Lima, A. O., Nascimento, C. P. S. do, Peter, M. da G. A., Machado, M. V. V., & Gomes, A. de O. (2013). *Desenvolvimento Municipal e Cumprimento da Lei de Responsabilidade Fiscal: Uma Análise dos Municípios Brasileiros Utilizando Dados em Painel*. *Revista Evidenciação Contábil & Amp;*

Finanças, 1(1), 58–70. Recovered from <https://periodicos.ufpb.br/index.php/recfin/article/view/16492>. Accessed on 05 December 2020.

Tavares, P. V., & Romão, A. L. (2021). *Accountability e a Importância do Controle Social na administração Pública: Uma Análise Qualitativa*. Brazilian Journal of Business, 3(1), 236-254. Recovered from <https://www.brazilianjournals.com/index.php/BJB/article/view/23530/18908>. Accessed on 20 January 2021.

Teixeira, A.F. & Gomes, R.C. (2019). *Governança pública: uma revisão conceitual*. Revista do Serviço Público, 70(4), pp.519-550. Recovered from <https://periodicos.ufv.br/apgs/article/view/4015>. Accessed on 05 December 2020.

Accounting Court of the State of Pernambuco. Transparency Index of the Municipalities of Pernambuco (ITMPE). Recovered from <https://www.tce.pe.gov.br/internet/index.php/sobre-o-itmpe>. Accessed on 14 July 2021.