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Exogenous Factors that Affect the Level of Public Transparency in Pernambuco Municipalities

ABSTRACT

Objective: the research aimed to find explanations through exogenous factors that affect the transparency of public information, in the search for alternatives and actions that can reduce asymmetries and, at the same time, improve the level of transparency of municipal public entities.

Method: The research is quantitative and of a descriptive-explanatory nature, using secondary data. Methodologically, a panel data regression model was used with information on the transparency of the 184 municipalities in Pernambuco.

Originality/Relevance: The study stands out by providing explanations through exogenous factors that affect the transparency of public information, in the search for alternatives and actions that can reduce asymmetries while simultaneously improving the level of transparency of municipal public entities.

Results: The results demonstrate the strong influence of the studied socioeconomic factors on the level of transparency presented by the municipalities in the state of Pernambuco, implying the perception that the social and economic evolution of the municipalities directly affects their levels of transparency.

Theoretical/Methodological contributions: The research contributes to the empowerment and exercise of internal, external, and social controls, as well as provides information for the improvement of the methodology for calculating ITM-PE and other transparency indicators used by interested entities. This helps in addressing the indices of municipalities while considering their inequalities.

Keywords: Public accounts. Municipal transparency index, Municipalities of Pernambuco, Transparency in the public sector, Transparency asymmetry.

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1 INTRODUCTION

Public transparency is a topic that has been studied by several areas of knowledge and the interest can be observed worldwide (Zuccolotto & Teixeira, 2014). Its importance is closely linked to the progressive interest in issues such as accountability, public administration, public spending and accountability (Coelho et al., 2018).

In Brazil, accountability and transparency procedures are basic instruments that are mandatory for all federal entities, whether municipal, state or federal (Complementary Law 101, 2000). In this scenario, in exercising external control and contributing to social control, the Pernambuco Court of Auditors (TCE-PE) has created and publishes the annual Pernambuco Municipal Transparency Index (ITM-PE).

In the results of the first publication of the ITM-PE, in 2015, there was a significantly noticeable asymmetry between the classifications of the indices attributed to the municipalities, and it was found that less than 1% (one percent) of the municipalities obtained indices at the desirable level and, in some municipalities, there was a level of transparency classified as non-existent (index equal to zero). The parameters used to calculate the index followed the requirements of the legislation and the internal rules of the TCE-PE.

However, the results of the indexes found, according to the criteria adopted to calculate the ITM-PE, such as revenue collected, expenditure incurred and the availability of bidding processes, do not prove sufficient to explain the motivations or external factors that may be related to the results obtained by the municipalities involved.

Previous studies have already identified external factors that can contribute to these results, such as that shown by Ferreira et al. (2020), that municipalities with less than 50,000 inhabitants are weaker in terms of compliance with minimum metrics applied to public transparency, a fact also identified by Cardoso (2019) and Antunes (2018).

Supporting these studies, Cruz et al. (2012) showed that larger municipalities are more capable of structuring the transparency of public spending, thus contributing to better performance in terms of the minimum requirements demanded by legislation.

In this context, the overall aim of the research was to find explanations through exogenous factors that affect the transparency of public information, in the search for alternatives and actions that can reduce asymmetries and, at the same time, improve the level of transparency of municipal public bodies.

In order to meet the above-mentioned objective, socioeconomic and fiscal management indicators were related, using an econometric model, to the results of the transparency index of the municipalities of Pernambuco (ITM-PE), the latter calculated and published by the TCE-PE from 2015 to 2018, based on the requirements established in TCE-PE Resolution No. 33 (2018).

The research is justified by the fact that it investigates elements external to the criteria established by the TCE-PE, as a way of explaining the level of transparency in municipalities, as well as making it possible to broaden the view of the concept of transparency given by legislation, to help fulfill the citizen's right to monitor the actions of public managers and to reinforce social control as a tool for improving the management of public resources.

As a practical contribution, the results of the research could be incorporated into the methodology for calculating the ITM-PE and other transparency indicators used by interested entities, as well as supporting external control bodies (Legislative and Audit Courts) when judging public accounts, in order to improve the responses of inspection bodies to society. Furthermore, the results found can be used by other entities that have transparency measurement mechanisms to improve their methodologies and evaluations.

2 THEORETICAL BACKGROUND

2.1 Transparency, accountability and fiscal responsibility

Social control of actions and accountability of public managers are directly linked to the maintenance of a country's democratic rule of law (Rausch & Soares, 2010; Kieling, et al., 2021). Transparency of public accounts, in turn, is a tool that contributes to this control and has been considered a key element in improving public management (Bernardo, et al., 2017; Miranda, et al., 2022).

For Cruz et al. (2012), public transparency and all actions that make it possible to improve the level of knowledge of public acts by all stakeholders are considered good public management practices. Baldissera et al. (2018) conceptualize transparency as the practice of making information available about the day-to-day actions of public officials and all the acts that result from them, in a continuous and organized way so that they are accessible to all interested parties and they can know and evaluate everything they are doing.

In the Brazilian legal system, transparency is a right guaranteed by the Federal Constitution, in several articles, but it is closely linked to the principles of publicity and efficiency (Brocco, et al., 2018). For Celestino (2018), these principles already establish transparency as a guideline for public management. However, as a way of giving more support to this practice, Law 101/2000 (Fiscal Responsibility Law-LRF) was approved, considered a regulatory framework that reinforced the principle of transparency, requiring public authorities to be more committed to public spending (Costa & Fiirst, 2020). Controls in public administration, in an organized society based on the precepts of democracy, materialize through accountability and the responsibility of public agents. The literature conceptualizes this as accountability (Cruz & Afonso, 2018).

The LRF establishes and standardizes the rules of public finance focused on the responsibility of fiscal management, and this implies that the actions of the manager need to be

planned and transparent aiming at the balance of public accounts, preventing and correcting any mismatch (Ferreira, et al., 2020), and its concept should not be interpreted in a restricted way, only linking the manager to his accountability, but rather in a broad way linked to the concept of accountability (Brocco et al., 2018).

Bernardo et al. (2017), states that accountability helps transparency and promotes the manager's responsibility for their actions and the results of those actions, and that this is made possible by the demands for accountability, which will allow society and the other parties involved in this process to verify the fulfillment of the leaders' commitments and consequently be able to question them and even demand punishment for their actions.

According to Rausch and Soares (2010), the principle of transparency, endorsed by the LRF, is broader than the principle of publicity laid down in the Federal Constitution (FC), since the mere disclosure of data does not necessarily imply that it will be understood by those seeking the information. According to Cruz et al. (2010), fiscal transparency means interpretation in a clear, easy way that makes it possible to monitor the execution of budgets and the application of public resources. And all this information needs to reach its recipient in the real sense that it expresses without leaving room for ambiguity.

The fiscal responsibility introduced by the LRF has brought about many debates over time about the publication, disclosure and transparency of information from public entities and has expanded access to it by electronic means (Neves, et al., 2015). However, on May 27, 2009, Law No. 131/2009, known as the (Fiscal) Transparency Law or Capiberibe Law, was instituted, which amended the LRF, expanding and detailing the forms of fiscal responsibility transparency (Brocco et al., 2018; Possamai & Schindler, 2017).

For Costa and Fiirst (2020) and Cruz and Afonso (2018), the Transparency Law determined that detailed information on the budgetary and financial execution of the federation entities (municipal, state and federal) should be made available in real time and by electronic

means. Oliveira and Bruni (2019) emphasize that disclosure on the internet needs to be in a way that facilitates and broadens access to information for all interested parties.

In short, the concepts and aspects of transparency, accountability and fiscal responsibility cannot be seen separately, as they are inseparable concepts and need to be analyzed as a whole (Cruz, et al., 2018).

2.2 The transparency index of the municipalities of Pernambuco (ITM-PE)

On November 18, 2011, Law No. 12,527/11 was published, which is the Access to Information Law (LAI), which regulated and guaranteed the exercise of the right of access to information (Celestino, 2018). According to Júnior (2019), the main change was to treat the disclosure of public information as a rule, with secrecy becoming an exception, and it was in this environment that transparency portals were created. Alcantara (2019) points out that transparency portals came about as a tool to aid social control of public actions.

Transparency portals then became the main place to concentrate the flow of information from public entities available to citizens (Antunes, 2018). Costa and Fiirst (2020) pointed out that what was most discussed during this period was not the creation of these portals, but their efficiency. This gave rise to the need to evaluate these portals.

And in this scenario, some supervisory bodies, such as the Office of the Comptroller General (GCU), began to evaluate these portals (Alcantara, 2019; Possamai & Schindler, 2017). According to Bartoluzzio and Anjos (2020), in the face of these demands, the TCE-PE also made its contribution and in 2015 produced the first edition of the Transparency Index of the Municipalities of Pernambuco (ITM-PE), making it possible to diagnose the level of transparency in the management of public resources in the municipalities under its jurisdiction.

The ITM-PE was therefore created with the aim of being a tool for combating corruption and strengthening social control (Alcantara, 2019) and set itself the goal of evaluating the transparency portals of the 184 municipalities in Pernambuco, using 13 evaluation criteria.

In the first edition of the ITM-PE, in 2015, the analysis criteria were based on LC 101/2000 - the Fiscal Responsibility Law (LRF) and Law No. 12.527/2011 - the Access to Information Law (LAI), Law 131/2009, known as the (fiscal) Transparency Law and Decree No. 7.185/2010 (repealed by Decree No. 10.540/2020). The requirements are currently consolidated and regulated by TCE/PE Resolution No. 33/2018.

This Resolution establishes that the index should be calculated based on the ratio between the sum of the scores attributed to the criteria met and the sum of the scores of all the criteria considered, set out in the Annexes to the Resolution, and should be measured for all City Halls and Municipal Councils in the state of Pernambuco (TCE-PE, 2018).

The evaluation criteria are divided into groups, namely: active transparency, passive transparency and good transparency practices, including accessibility tools that guarantee access to information for people with special needs (TCE-PE, 2018).

The evaluation is carried out by inspecting the official websites and transparency portals of all municipalities in the state of Pernambuco, as well as proving that the Citizen Information Service (SIC) has been created within the respective authority, which must be done through a rule attached to the Jurisdictional Unit Registration system (TCE-PE, 2018).

2.3 Factors relating to public transparency

The transparency indexes determined by inspection bodies show the level of information disclosed by public entities, associated with legal requirements and good transparency practices (Cruz et al., 2012), but Silva et al. (2019) pointed out that these indexes are basically associated with financial issues, and that the theoretical-empirical literature reveals the existence of a large number of possible factors that can explain the level of transparency in states and municipalities, notably associated with social, economic, fiscal and demographic characteristics.

2.3.1 Factors relating to public transparency

Socioeconomic indicators are factors that have already been related to transparency in previous studies. Cruz et al. (2010), for example, analyzed the largest municipalities in the state of Rio de Janeiro, seeking to identify the factors that condition the transparency of fiscal information in electronic media. The authors studied Socioeconomic factors (population, budget revenue, GDP per capita, literacy rate) and their relationship with fiscal transparency; the expectation was to find a positive relationship with all the Socioeconomic variables studied, and in fact it was found for almost all of them, but the variation in GDP per capita was not statistically significant enough to allow inferences to be made about its effect.

At the national level, Cruz et al. (2012) carried out a survey of 96 large Brazilian municipalities and related the levels of transparency to Socioeconomic indicators (literacy rate, HDI, Firjan index of municipal development, revenue collected, among others) and their findings showed that there is an association between social and economic factors and good practices in the transparency of public resources, verified by observing the respective portals that disclose this information.

In Spain, Tejedo-Romero and Araújo (2018) found similar results to those found by Oliveira and Bruni (2019). The research covered a period of 4 years and aimed to analyze the determinants of the level of transparency of the country's municipal governments, focusing on social, economic and political indicators. Overall, the study found a significant relationship between these variables, but there was no significant effect on the investment and fiscal pressure variables.

Corroborating these results, Zuccolotto and Teixeira (2014) and Baldissera et al. (2020) also found a positive relationship between socioeconomic indicators and the transparency variable.

Based on the studies shown, Table 1 presents a summary of the main Socioeconomic indicators that have been shown to have a significant relationship with the transparency of public entities, as well as their expected relationship to this study.

Table 1

Socioeconomic indicators, relation to transparency and source of research.

Socioeconomic indicators	Relation to transparency	Source
HDI - Human Development Index	Significant and positive	Souza et al., (2013); Cruz et al. (2010); Neves et al. (2015); Cruz et al. (2012); Rossoni e Beiruth (2016); Brocco et al. (2018); Celestino (2018); Silva et al. (2019).
GDP per capita - Gross Domestic Product	Significant and positive	Souza et al. (2013); Cruz et al. (2010); Bernardo et al. (2017); Rossoni e Beiruth (2016); Possamai e Schindler (2017); Brocco et al. (2018); Celestino (2018); Oliveira e Bruni (2019); Silva et al. (2019).
Number of inhabitants (POP)	Significant and positive	Souza et al. (2013); Baldissera et al. (2020); Cruz et al. (2010); Bernardo et al. (2017); Celestino (2018); Rossoni e Beiruth (2016); Brocco et al. (2018); Freitas et al. (2017); Freitas et al., (2016); Possamai e Schindler (2017); Silva et al. (2019); Barbosa (2019); Leite et al., (2018).
IDEB - Basic Education Development Index	Significant and positive	Souza et al. (2013); Freitas et al. (2016); Celestino (2018).
IFDM - Firjan Municipal Development Index	Significant and positive	Souza et al. (2013); Cruz et al. (2012); Rossoni e Beiruth (2016); Brocco et al. (2018); Zuccolotto e Teixeira (2014); Barbosa (2019); Leite et al., (2018).

In view of the research literature presented in Table 1, the following research hypotheses are proposed:

H1: The Human Development Index (HDI) has a positive relationship with the Pernambuco Municipal Transparency Index (ITM-PE).

H2: The Gross Domestic Product (GDP) per capita has a positive relationship with the Transparency Index of the Municipalities of Pernambuco (ITM-PE).

H3: The number of inhabitants (POP) has a positive relationship with the Pernambuco Municipal Transparency Index (ITM-PE).

H4: The Basic Education Development Index (IDEB) has a positive relationship with the Pernambuco Municipal Transparency Index (ITM-PE).

H5: The Firjan Municipal Development Index (IFDM) has a positive relationship with the Pernambuco Municipal Transparency Index (ITM-PE).

2.3.2 Fiscal indicators

The Fiscal Responsibility Law (LRF) of 2000 is considered one of the regulatory milestones of fiscal management, having defined the performance parameters for the management of public resources. Fiscal indicators are used as a measure for analyzing this performance and as a tool for monitoring the management of public sector finances (Cruz et al., 2010).

Table 2 shows the fiscal indicators researched in the literature that have a significant relationship with transparency.

Considering the theoretical framework and the references presented in Table 2, the following hypotheses are put forward:

H6: The Firjan Fiscal Management Index (IFGF) has a positive relationship with the Pernambuco Municipal Transparency Index (ITM-PE).

H7: Revenue collected per capita has a positive relationship with the Pernambuco Municipal Transparency Index (ITM-PE).

H8: The Convergence and Consistency Index of the Municipalities of Pernambuco (ICC-PE) has a positive relationship with the Transparency Index of the Municipalities of Pernambuco (ITM-PE).

Table 2

Fiscal indicators, relation to transparency and source of research.

Fiscal indicators	Relation to transparency	Source
IFGF - Firjan Fiscal Management Index	Positive	Bernardo et al. (2017); Rossoni e Beiruth (2016); Brocco et al. (2018); Silva et al. (2019); Medeiros et al. (2020). Leite et al., (2018).
Revenue collected per capita	Positive	Baldissera et al. (2020); Cruz et al. (2010); Cruz et al. (2012); Bernardo et al. (2017); Oliveira e Bruni (2019); Leite et al., (2018). Brocco et al. (2018); Celestino (2018); Zuccolotto e Teixeira (2014). Barbosa (2019).
ICC-PE - Index of Convergence and Consistency of the Municipalities of Pernambuco.	Positive	Carlos et al. (2018).

3. RESEARCH METHOD

This is a descriptive-explanatory study with a quantitative method, using statistical procedures to obtain the results. The data collected is of a secondary nature as it reflects information obtained from official electronic portals of government entities and others.

In order to delimit the investigated population, we chose to work with the universe of all the municipalities in Pernambuco (184 municipalities).

The ITM-PE was chosen because the TCE-PE has institutionalized and regularly calculates the indicator, in addition to the need to use the same calculation methodology. Few of Brazil's Courts of Auditors compile a transparency index for their jurisdictions, out of the 34 courts in Brazil, and when they do, they use different calculation methodologies, so we took the example of the TCE-PE because it is a benchmark court in Brazil, which can be an example for others.

Table 3

Legend and description of variables

Variable	Description	Classification
ITM _{it}	Transparency index in municipality i in year t;	Dependent
RECPC _{it}	Revenue collected per capita in municipality i in year t;	Explanatory
PIBPC _{it}	GDP per capita in municipality i in year t;	Explanatory
IDHM _{it}	Human Development Index in municipality i in year t;	Explanatory
IFGF _{it}	FIRJAN Fiscal Management Index in municipality i in year t;	Explanatory
IDEB _{it}	Basic Education Development Index in municipality i in year t;	Explanatory
ICC _{it}	Accounting Convergence Index in municipality i in year t;	Explanatory
TXDESOC _{it}	Unemployment rate in municipality i in year t;	Control
DENS _{it}	Population density in m2 in municipality i in year t;	Control
TXURB _{it}	Urbanization rate in municipality i in year t;	Control
ENS_SUP _{it}	Percentage of people with higher education in municipality i in year t;	Control
POP _{it}	Population of municipality i in year t;	Explanatory
GINI _{it}	Gini index in municipality i in year t;	Control
ε _{it}	random error of the ith municipality in year t.	—

With regard to time, the research covered the years 2015 to 2018 (04 years). The time limitation is justified due to the absence of ITM-PE publications for the 2019 financial year, because, due to the public health pandemic (2020-2021), the TCE-PE did not calculate the index in 2019. The ITM-PE began to be calculated in 2015.

To empirically test the research hypotheses, regression models for panel data were used in line with Gujarati and Porter (2011), as per equation (1). The description of the variables in the econometric model is detailed in Table 3.

$$ITM_{it} = \beta_0 + \beta_1 RECPC_{it} + \beta_2 PIBPC_{it} + \beta_3 IDHM_{it} + \beta_4 IFGF_{it} + \beta_5 IDEB_{it} + \beta_6 ICC_{it} + \beta_7 TXDESOC_{it} + \beta_8 DENS_{it} + \beta_9 TXURBAN_{it} + \beta_{10} ENS_SUP_{it} + \beta_{11} POP_{it} + \beta_{12} GINI_{it} + \varepsilon_{it} \quad (1)$$

4. RESULTS AND DISCUSSIONS

4.1. Presenting the results

The proposed econometric model was adopted in order to verify which factors affect the ITM-PE in the municipalities of Pernambuco. The results of the estimations using the

pooled Ordinary Least Squares and Panel models are shown in Table 4.

Table 4

Result of the estimation of the regression model by pooled MQO, fixed effects and random effects with the addition of the fixed effects of region of development as controls.

Dependent Variable: ITM-PE			
Variáveis Independente	(1) <i>Pooled</i>	(2) Panel 1	(3) Panel2
<i>log</i> RECPC	49.84*** (14.28)	183.18*** (43.34)	53.78*** (16.23)
<i>log</i> PIBPC	82.52*** (23.45)	297.16* (140.59)	88.30** (28.83)
IDHM	806.33** (288.07)		849.05** (310.72)
IFDM	-96.83 (201.06)	77.89 (416.31)	-114.73 (203.77)
IFGF	116.18* (55.78)	16.96 (83.29)	113.33* (53.87)
IDEB	36.11** (13.69)	80.12** (29.80)	40.22** (15.03)
ICC	1.08 (0.69)	2.06* (0.86)	1.09 (0.70)
TXDESOC	-3.33 (2.66)		-3.17 (2.29)
DENS	0.00 (0.01)		0.00 (0.01)
TXURBAN	-0.37 (0.56)		-0.42 (0.61)
ENS_SUP	-6.57 (7.66)		-7.21 (7.95)
<i>log</i> POP	-4.52 (15.71)		-6.09 (15.18)
GINI	328.62 (245.86)		328.04 (240.01)
Fixed Development Region Effect	YES	YES	YES
R2	0.130	0.170	0.150
F	5.70***	9.73***	-
Breusch-Pagan	1.65	-	-
Lagrange multipliers	0.01	-	-
Obs.	736	736	736

Note: [i] log - logarithm of the municipal revenue per capita and GDP per capita variables; [ii] Standard errors in brackets; [iii] *, **, *** indicate statistically significant at the 5% and 1%, 0.1% levels respectively.

In Table 4, the differences between the models are due to the difference in the estimation method. Column (1) shows a grouping estimated by MQO (Pooled) and columns (2) and (3) were estimated by fixed effects (Panel1) and random effects (Panel2), taking into account the time trend of the data. Initially, the Variance Inflation Factor (VIF) test was carried out according to Gujarati and Porter (2011) in order to check for the presence of

multicollinearity between the variables. When the VIF value is >10 , multicollinearity is present. The results of this test are shown in Table 3, where it can be seen that there is no problem of multicollinearity between the variables proposed in the econometric model, since the VIF was less than 5 for all the variables in the model. In order to detect the presence of heteroscedasticity in the data, the Breusch-Pagan test was performed and the null hypothesis of constant variance was rejected, indicating the presence of heteroscedasticity in the data. The result of this test is shown in Table 4 (column (1)). To correct the problem of heteroscedasticity, White's robust estimators were used, according to Gujarati and Porter (2011).

Table 5

Expectations and results achieved for all socio-economic and tax group hypotheses.

Hypothesis	Variable	Expectations	Results achieved	Conclusion
H1	IDHM	Positive	Positive and statistically significant at 1%	H1 was not rejected
H2	PIB per capita	Positive	Positive and statistically significant at 1%	H2 was not rejected
H3	Population	Positive	Not statistically significant	H3 was rejected
H4	IDEB	Positive	Positive and statistically significant at 1%	H4 was not rejected
H5	IFDM	Positive	Not statistically significant	H5 was rejected
H6	IFGF	Positive	Positive and statistically significant at 5%	H6 was not rejected
H7	Revenue collected per capita	Positive	Positive and statistically significant at 1%	H7 was not rejected.
H8	ICC-PE	Positive	Not statistically significant	H8 was rejected

The Breusch-Pagan Lagrange Multipliers test was also carried out to check whether the variance between the observation units is equal to zero, indicating that there is no panel effect. The result of the test was that the null hypothesis was not rejected, which indicates that the model estimated by grouped MQO produces more consistent estimates of the parameters of the proposed econometric model. The results of this test can also be found in Table 4 (column (1)).

Table 5 summarizes all the results achieved and the expectations for each hypothesis of the socioeconomic and fiscal group variables.

4.2. Discussion of results

4.2.1. Socioeconomic variables versus hypotheses

The results for the group of socio-economic variables can be interpreted from column (1) of Table 4.

H1 was not rejected, concluding that the MHDI has a positive relationship with ITM-PE, confirming the result already found by previous studies such as Souza et al. (2013), Cruz et al. (2010) and Neves et al. (2015). This result indicates that Pernambuco municipalities with better human development have more potential to maintain good levels of transparency.

H2 was also not rejected, so there is evidence that GDP has a positive relationship with ITM-PE, confirming the result already found by previous research such as Bernardo et al. (2017), Rossoni and Beiruth (2016) and Possamai and Schindler (2017), pointing out that municipalities with better economic performance have better levels of transparency.

H3 was rejected. This result allows us to infer that the population of the municipalities in the state of PE does not explain the ITM-PE score. This result differs from studies carried out in Brazil by Cruz et al. (2010) and Baldissera et al. (2020); in China by Sun and Andrews (2020) and in Portugal by Freitas et al. (2017), but Silva et al. (2019) also did not identify the influence of this variable on transparency indices.

H4 was not rejected. This result allows us to infer that IDEB has a positive relationship with ITM-PE, confirming the results found by Souza et al. (2013) and Freitas et al. (2016).

This result shows that municipalities with better levels of basic education tend to select leaders who provide greater transparency, as evidenced by the ITM-PE.

H5 was rejected. With regard to the IFDM, the results were not statistically significant, differing from previous studies such as Barbosa (2019), Brocco et al. (2018), Leite et al. (2018) and Zuccolotto and Teixeira (2014).

4.2.2. Fiscal management variables versus hypotheses

Regarding the municipal fiscal management variables (Table 2), it was possible to extract the following findings.

H6 was not rejected. This result allows us to conclude that the IFGF has a positive influence on the ITM-PE, corroborating the results found in the research by Rossoni and Beiruth (2016), Brocco et al. (2018), Silva et al. (2019) and Medeiros et al. (2020). This is evidence that municipalities with more responsible fiscal management are more committed to complying with fiscal and tax legislation, thus pointing to better levels of transparency.

H7 was not rejected. This result allows us to infer that the amount of revenue per capita in the municipality has a positive relationship with the ITM-PE. The result ratifies the conclusions reached in the studies by Baldissera et al. (2020), Cruz et al. (2010), Cruz et al. (2012), Bernardo et al. (2017), Oliveira and Bruni (2019); indicating that municipalities with higher revenue per capita tend to achieve better levels of transparency.

H8 was rejected. Unlike the results of the other variables in the group of variables on fiscal management, the ICC-PE was the only variable whose results were not statistically significant, in line with the studies by Carlos et al. (2018).

5. FINAL CONSIDERATIONS

The aim of this research was to find evidence of the existence, or not, of a relationship between socioeconomic and fiscal management factors and the ITM-PE, produced and published by the TCE-PE for the 184 municipalities of Pernambuco between 2015 and 2018.

The evidence found shows that there is a great influence of socio-economic factors on the level of transparency shown by municipalities in the state of Pernambuco, implying that the social and economic development of municipalities directly affects their levels of transparency. This finding may help to explain why poor municipalities, with low economic and social

development, find it difficult to achieve transparency and accountability at conventionally desirable levels.

Finally, in response to the objective initially proposed, it is possible to state from the research findings that there is strong evidence that socioeconomic and fiscal management factors explain the asymmetries and heterogeneities observed in the transparency indicators in the municipalities of the state of Pernambuco. This finding contributes to the instrumentation and exercise of internal, external and social control, as well as providing information for improving the methodology for calculating the ITM-PE and other transparency indicators used by interested entities, in order to treat the indices of municipalities considering their inequalities.

For future research, it is suggested that the period analyzed be extended to include data published after the end of this study. We could also include new variables related to transparency that were not covered in this study, such as violence, public safety and sanitation indices in municipalities. Finally, the model can be replicated in other states or used with data from the states and the Federal Government.

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Fatores Exógenos que Afetam o Nível de Transparência Pública dos Municípios Pernambucanos

RESUMO

Objetivo: A pesquisa teve por objetivo encontrar explicações através de fatores exógenos que afetam a transparência das informações públicas, na busca de alternativas e ações que possam reduzir as assimetrias e, ao mesmo tempo, melhorar o nível de transparência dos entes públicos municipais.

Método: Utilizou-se de modelo de regressão com dados em painel para verificar se indicadores socioeconômicos e de gestão fiscal influenciam no Índice de Transparência dos Municípios Pernambucanos – ITM-PE.

Originalidade/Relevância: O estudo se insere como referência por proporcionar explicações através de fatores exógenos que afetam a transparência das informações públicas, na busca de alternativas e ações que possam reduzir as assimetrias e, ao mesmo tempo, melhorar o nível de transparência dos entes públicos municipais.

Resultados: Os resultados demonstram que forte influência dos fatores socioeconômicos, estudados, no nível de transparência apresentados pelos municípios do estado de Pernambuco, implicando na percepção de que, a evolução social e econômica das municipalidades, afetam diretamente seus níveis de transparências.

Contribuições Teóricas/Metodológicas: a pesquisa contribui para a instrumentalização e o exercício dos controles interno, externo e social, além de proporcionar informações para o aperfeiçoamento da metodologia de apuração do ITM-PE e de outros indicadores de transparência utilizados por entidades interessadas, de modo a tratar os índices das municipalidades considerando suas desigualdades.

Palavras-chave: Contas públicas, Índice de transparência municipal, Municípios de Pernambuco, Transparência no setor público, Assimetria de transparência.

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