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Abstract: The main objective of this research was to analyze the relationship between socioeconomic and demographic indicators and the level of transparency of municipalities in the state of Maranhão. The transparency index was constructed based on the LRF and LAI and consisted of 32 items. Subsequently , for To identify which factors explain the level of transparency, a multiple linear regression was carried out, comparing the explanatory variables for the level of transparency adopted in this study. The sample consisted of municipalities in the State of Maranhão, totaling 211 municipalities, as 7 did not have a website. The results of the multiple linear regression model indicate that the IDHM, the log of total GDP, the GDP per capita and the variable log of POP explain the NT of the municipalities surveyed to the point of explain the level of transparency of the municipalities of Maranhão, only the IFDM did not show a relationship with the NT among the variables analyzed.

Keywords: transparency; municipalities in Maranhão; public Management. explanatory factors

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1. INTRODUCTION

The search for information from the public sector is not new, the issue of transparency in public management has been gaining prominence in recent years, as citizens have started to have a more critical view, this fact is linked to the increase in democratic accountability that has increased in the country in recent years, that is, the parameters that guided public administration have changed from a bureaucratic paradigm to the search for efficient management that values transparency (Zuccolotto; Teixeira, 2014; Rebolledo, et al., 2017; Costa Santos; Vieira ; Ávila, 2020; Reis Machado, 2021).

The Access to Information Law (LAI) and Fiscal Responsibility Law (LRF) have further modified this scenario, as information is increasingly required from managers. Management transparency allows communication to be established between the society that seeks this data and the managers who hold it. When the public manager uses public transparency and reveals his socioeconomic and demographic indicators, he is using accountability practices, as highlighted by Baldissera et al. (2020) and Costa et al., (2020).

Several national and international researches were carried out around the theme of this study, from the national to the municipal sphere (Kronbauer, et al., 2015), Souza e Peixe (2017), Costa Barros et al., 2017; Rebolledo, et al., 2017; Araujo et al., 2020) . Brocco et al. (2018) and Araujo et al., 2020 point out that there are still many limitations and aspects to be investigated in relation to the topic of public transparency, there are also several aspects in relation to government transparency that need to be analyzed.

The constitutional principle of publicity imposes on public authorities in all spheres the duty to disclose all administrative activities carried out by the State (MOREIRA, 2001). Both the LAI and the LRF aim to allow and demand that public governance can improve and also ensure that citizens have greater control over administrative acts (TCU, 2014; Brocco et al., 2018; V isentini; Santos, 2019) .

Therefore, and considering the importance of transparency in public management, and the adoption of the LRF and LAI as public governance instruments, **this article aims to analyze the**

relationship between socioeconomic and demographic indicators and the level of transparency in the state's municipalities. from Maranhão.

Objectively, the study aims to verify which factors can explain the level of transparency of municipalities in the state of Maranhão. This article intends to contribute to improving public transparency, as well as showing citizens the levels of transparency found in the municipalities of the State of Maranhão, and reinforcing the need to monitor public spending through participation and social control. contribute to the literature on the topic.

This research aims to fill a gap in the research carried out as it studies municipalities that have not yet been analyzed, since other research focused on analyzes in medium and large municipalities, this research also analyzes variables that have not yet been tested as factors that can explain public transparency , in addition to these factors, the logarithmic function applied to the population variable was also tested in order to balance the indices to the size of the municipality's population.

This article also seeks to demonstrate the level of transparency of municipalities in Maranhão, which would allow society greater social control according to Broco et al. (2018), being transparent increases citizens' access to spending control by public entities.

Analyzing the transparency of the municipalities of Maranhão is justified because it is a state that has not yet been analyzed as a whole, which is why it is important to carry out this analysis with all municipalities so that it becomes possible to verify the differences between municipalities in the same State . and try to answer what could cause these differences in the level of transparency.

And although there are studies on the level of transparency in various spheres of the Brazilian government, the results of this research may indicate an overview of the transparency index of municipalities in Maranhão, which will help public managers analyze the way in which they are disseminating information. in their management, thus enabling guidance in the development of policies to provide clear and efficient information, which can help to strengthen the government-citizen relationship.

2-. THEORETICAL FRAMEWORK

2.1. Transparency in the public sector

Transparency has become a fundamental value in democracy; It facilitates the monitoring of collections activity and prevents abuses of power and corruption that proliferate in opaque contexts, the more information citizens have at their disposal to exercise effective control over the management of public affairs. It makes no sense to have a huge amount of documents stored if there is no policy to make them accessible, encourage their use or promote interaction with citizens (Bauhr; Grimes, 2014).

Society has sought to advance the level of transparency of government entities, thus it is evident that there is a greater need in society for transparency in government data made available on internet portals, and this must be a reality for government entities that seek to achieve accountability of the society (Rebolledo, et al., 2017; Costa Santos; V ieira; Avila , 2020; Araujo et al., 2020).

Transparency has become a recurring theme in recent research, within the framework of the so-called "electronic democracy" or "cyberdemocracy" and a new digital environment, transparency remains an essential condition to respond to the increasing demand for a more open form of government. According to the organization Transparency International, the term transparency refers to "the quality of a government, company, organization or person to be open in disclosing information, policies, plans, processes and actions. As a general rule, civil servants, public servants, managers and directors of companies and organizations and boards have an obligation to act in a visible, predictable and understandable way to promote participation and responsibility (Rebolledo, et al., 2017) . In this way, public representatives and political parties are dealing with a complicated scenario with different challenges to be faced in relation to citizen participation, an aspect increasingly requested by civil society.

However, in order for these laws to be faithfully complied with, it is necessary for society to exercise its role of monitoring and supervising the public management of entities, thus transparency

portals are the instruments that society has at its disposal to exercise this supervision. The transparency of the portals represents a means for society to exercise this supervisory role, as it is clear about what transparency must be given, and these rules affect revenues, public expenses, debt and asset management. public (Costa Barros et al., 2017).

International studies covering several countries indicated that the level of transparency of countries is linked to human and socio-economic development indices, but is not linked to cultural, geographic or financial factors (Bellyer and Kaufmann, 2005; Kolstad and Wiig, 2009, Silva , 2019).

Transparency has become a fundamental value of democracy; facilitates monitoring of whistleblowing activity and prevents abuses of power and corruption that proliferate in opaque contexts. In this sense, the more information citizens have at their disposal to exercise effective control over the management of public affairs, the more the gap between rulers and ruled will decrease, thus the need for greater disclosure of information becomes evident (Rebolledo et al., 2017) .

Accounting must have as its main objective the disclosure of information, this information must be transparent and useful in decision-making, and the definition of useful is relative, as the user of the information can decide what would be useful (Brocco et al. , 2018). According to Aquino and Santana (1992), this information must then be clearly disclosed, where the user of the information understands what is being disclosed.

This accounting disclosure can be divided into voluntary and mandatory and can be defined as information that is established by some law or legal provision, which makes it mandatory for public entities. Voluntary disclosure corresponds to disclosure carried out spontaneously without the need for a legal provision. The Fiscal Responsibility Law (LRF) and the Access The Information (LAI) establish some information whose disclosure It is mandatory, being treated in sections below.

3-. METHODOLOGY

3.1. Variables used in the model

To compose the research universe, based on internet search programs, the active websites of all municipalities in the State of Maranhão were collected, constituting the primary source of data for the study, totaling 217 municipalities that make up the State. . The study did not consider 6 municipal websites due to the non-existence, deactivation, construction, maintenance of part of the electronic sites or even because they were configured as blogs, which were (...). Thus, the final sample resulted in the analysis of 211 municipalities that make up the state of Maranhão.

After this search, a calculation of the transparency index of the websites of the municipalities of Maranhão was carried out to develop the digital transparency model, which was adopted for this study, using the studies of Amorim (2012), Diniz et al., (2016) and Araújo et al., (2020), who considered data, information, services and transparency, comprised in dimensions of the website evaluation process, in addition to analysis categories and indicators.

In the statistical analysis, the multiple regression methodology was used, which, according to Fávero (2017), allows the construction of models that can describe, even in a reasonable way, the relationships between the variables under analysis, according to the author, a regression model multiple is a measure of variable Y that is explained by the joint variation of variables X considered in the model. The Rcmdr software, v. 4.3.0.

To demonstrate the proposed objective, empirical tests were carried out and the variables that could explain the study were initially tested. To this end, alternative multiple linear regressions were carried out to analyze the significant variables, and to be able to determine the most representative betas that were related to the level of transparency.

The Demographic Census carried out by the Brazilian Institute of Geography and Statistics (IBGE) in 2018 identified 217 cities that belong to the State of Maranhão. For the study, the sample consisted of 211 municipalities. The selection criterion was to have a population estimate of 5,000 inhabitants, as identified in table 2. Of the municipalities in Maranhão that make up the sample, 9 are large (over 100,000 inhabitants), 15 are medium-sized (50,001 to 100,000 inhabitants) and 189 small ones (up to 50,000 inhabitants).

Table 1. Large, medium and low-sized cities in the state of Maranhão.

Population Range	n (%)	Counties
Over 100,000 – large	2 (7.25%)	São Luís, Imperatriz, São José de Ribamar, Timon, Caxias, Paço do Lumiar, Codó, Açailândia and Bacabal
Between 10,001 and 100,000-medium size	25 (36.23%)	Ferries, Santa Inês, Barra do Corda, Pinheiro, Chapadinha, Santa Luzia, Buriticupu, Grajaú, Itapecuru-Mirim, Coroatá, Barreirinhas, Tutoia, Vargem Grande, Viana, Zé Doca, Lago da Pedra, Coleho Neto, Presidente Dutra, Araioses, São Bento, Rosário, Estreito, Tuntum, Bom Jardim, São Mateus do Maranhão, Colinas, Pedreiras, Penalva, Santa Rita, Brejo, Turiaçu, Parnarama, São Domingos do Maranhão, Bom Jesus das Selvas, Matões, Monção, Urbano Santos, Pindaré - Mirim, Vitória do Mearim, Curupuru, Arame, Alto Alegre do Pindaré, Vitorino Freire, Raposa, Arari, Buriti, Timbiras, Humberto de Campos, São Bernardo, Miranda do Norte, Icatu, Alto Alegre do Maranhão, Anajatuba, Aldeias Altas, Itinga do Maranhão, São João dos Patos, Santa Quitéria do Maranhão, Turilândia, Governador Nunes Freire, Santa Luzia do Paruá, Pedro do Rosário, Carolina, Porto Franco, Buriti Bravo, João Lisboa, Carutapera, Matinha, Dom Pedro, Peritoró, São Vicente Ferrer, Alcântara, Trizidela do Vale, Cantanhade, Centro Novo do Maranhão, Pio XII, Maracaçumé, Paraibano, Bequimão, Paulo Ramos, Mirador, Nova Olinda do Maranhão, São João Batista, Riachão, Cândido Mendes, Magalhães de Almeida, Palmeirândia, Olho d'Água das Cunhãs, Pastos Bons, Morros, Cajari, Formosa da Serra Negra, Passagem Franca, Presidente Sarney, São Raimundo das Mangabeiras, São Luís Gonzaga do Maranhão, Barão do Grajaú, São Benedito do Rio Preto, Pirapemas, Bacuri, São João do Soter, Governador Edison Lobão, Gonçalves Dias, Poção das Pedras, Esperantinópoliks, Apicum-Açu, Bacabeira, Mata Roma, Governador Eugênio Barros, Matões do Norte, Jenipapo dos Vieiras, Bom Lugar, Lago Verde, Conceição do Lago-Açu , Joselândia, Itaipava do Grajaú, Paulino Neves, Santo Amaro do Maranhão, São João do Caru, Anapurus, Fortuna, Buritirana, Araguanã, Primeira Cruz, Mirinzal, Olinda Nova do Maranhão, Cidelândia, Santo Antônio dos Lopes, Nina Rodrigues, Campestre do Maranhão, Peri Mirim, Senador La Rocque, Igarapé do Meio, Satubinha, Centro do Guilherme, Vila Nova dos Martírios, Santa do Maranhão, Davinópolis, Presidente Juscelino, São Pedro da Água Branca, Fortaleza dos Nogueiras, Água Doce do Maranhão, São Francisco do Maranhão, Loreto, Axixá, Guimarães, Lima Campos, Godofredo Viana, São Francisco do Brejão, Lagoa Grande do Maranhão, Duque Bacelar, Igarapé Grande, Lagoa do Mato, Bela Vista do Maranhão, Presidente Vargas, Alto Paranaíba, São João do Paraíso and Cajapió.
Between 5,000 and 10,000-low sized	39 (56.52%)	Capinzal do Norte, Lago do Junco, Governador Archer, Cedral, Fernado Falcão, Serrano do Maranhão, Governador Newton Bello, Jatobá, Cachoeira Grande, Boa Vista do Gurupi, Brejo de Areia, Montes Altos, Lagoa dos Rodrigues, Central do Maranhão, Tasso Fragoso, Feira Nova do Maranhão, Milagres do Maranhão, Governador Luiz Rocha, Marajá do Sena, Santa Filomena do Maranhão, São José dos Basílios, Lajeado Novo, Belágua, São Domingos do Azeitão, Presidente Médici, Amapá do Maranhão, Luís Domingues, São Roberto, Afonso Cunha, Graça Aranha, Junco do Maranhão, Porto Rico do Maranhão, Tufilândia, Sambaíba, Sucupira do Riachão, Bacurituba, Benedito Leite, Nova Colinas, São Raimundo do Doca Bezerra, São Pedro dos Crentes and São Félix de Balsas.

Source: Prepared by the authors, based on IBGE (2018).

Table 1 presents information on (…) ? I didn't really understand, because the quantity is different from the values described above, the total in the table also doesn't match the total in the sample. There is also no discussion about the painting, it was not even called in the text for presentation. If it is a sample, we can see another way of presenting it, without mentioning all the cities, because there are many, leaving this for the appendix.

In this research, the same indicators were used, shown in tables 3 and 4. To identify of service or no, started at the portal from the transparency, after at page initial, in map of *site* It is, per last, appealed The tool in search, when it is it was made available and working correctly. In this examination, the indicators that were highlighted received a score of 1, and those that were not, received a score of 1. 0.

Regarding data collection, it was carried out between the months of June and July 2021. To identify the sites researched, the search platform was used *online website* from Google (www.google.com.br), adopting as the standard expression "City Hall Municipal of [name of

municipality]". All electronic pages had the extension ".gov" in your address It is they were considered valid.

The collection of evidence for the construction of the Transparency Level (NT) variable occurred through analysis of information from the portals of each of the municipalities. On a Firstly, the content was accessed by accessing the page's direct *links* . When the information was not found, the search service was used, if this was available. available at the portal.

The collection of explanatory variables for the level of transparency took place through several sites: Population and GDP were collected from the Foundation for Economics and Statistics website (FEE) (2018 period); IDHM data (2018 data) can be found on the Atlas Brasil website and the IFDM was collected in the FIRJAN System itself, referringto the year 2018, which was the last available; population data were collected from the IBGE website and refer to the year 2018. It should be noted that the most recent data for each of the variables, in order to measure their relationship with the variable dependent.

With regard to variables, the dependent variable of this research is the Level of Transparency (NT), what he was built with base at the study in Ax (2013) and Brocco et al (2018), It is it will beused as a dependent variable, in order to investigate the explanatory factors that can be correlated to the your results. Such variable gathers 16 items in disclosure mandatory required by the LRF and 16 required by the LAI. In Table 2, all you 32 items that make up O NT It is Yours respective legal bases.

Table 2. – Compliance Indicators of the Fiscal Responsibility Law.

Parameters	LRF Compliance Indicators	Legal base
	1) Current Multi-Year Plan (PPA)	Art. 48
	2) Previous Multi-Year Plan (PPA)	Art. 48
	3) Current Budget Guidelines Law (LDO)	Art. 48
	4) Previous Budget Guidelines Law (LDO)	Art. 48
	5) Current Annual Budget Law (LOA)	Art. 48
	6) Previous Annual Budget Law (LOA)	Art. 48
	7) Summary Budget Execution Report (RREO)	Art. 48
	8) Fiscal Management Report (RGF)	Art. 48
	9) Simplified version RREO	Art. 48
	10) Simplified version RGF	Art. 48
	11) Accountability report	Art. 48
LRF (16 points)	12) Prior Accounting Opinion	Art. 48
	13) Encouraging popular participation and public hearings in the process of drafting and discussing the PPA, LDO and LOA	Art. 48
	14) Real-time budget and financial execution information	Art. 48
	15) Disclosure of the dates of public hearings during the process of drafting and discussing the PPA, LDO and LOA	Art. 9
	16) Disclosure of the dates of the four-monthly public hearings to evaluate the fiscal goals	Art. 9

Source: Silva (2013) and Araujo et al (2020).

In the indicators referring to the PPA, the PPA was considered "current" for the period from 2014 to 2017, and "previous" was considered to be the period from 2010 to 2013 or 2006 to 2009. In the indicators pertinent to LDO and LOA, it was validated as "current" to the laws relevant to the year in 2017, It is "previous" any one of period in 2000 The 2016. In the real-time information indicator , they were admitted when they complied with Decree No. 7,185/2010 and were available until the first business day following the accounting record date. Table 3 presents the indicators associated with LAI.

Table 3. – Compliance Indicators of the Access to Information Law.

Parameters	LAI Compliance Indicators	Legal base
LAI (16 points)	1) Clear indication of access to the Access to Information Law (LAI)	Art. 5
	2) Indication of means for requesting information	Art. 6
	3) Creation of the citizen information service - SIC	Art. 9
	4) Information regarding your skills	Art. 8
	5) Information regarding the organizational structure	Art. 8
	6) Disclosure of the address, telephone numbers and opening hours of the unit(s)	Art. 8
	7) Information regarding transfers or transfers of resources	Art. 8
	8) Information about expenses incurred	Art. 8
	9) Information on tenders, notices and results of competitions	Art. 8
	10) Information about concluded contracts	Art. 8
	11) Information for monitoring programs, actions, projects and works	Art. 8
	12) Availability of "answers and questions" most frequently asked FAQ	Art. 8
	13) Availability of research tools	Art. 8
	14) Permission to record electronic reports	Art. 8
	15) Updating the information made available	Art. 8
	16) Availability of access to information for people with disabilities	Art. 8

Source: Silva (2013) and Araujo et al (2020).

Then, the websites were simultaneously reanalyzed for usability and accessibility, according to the criteria established by Amorim (2012), Amorim and Almada (2016), which are listed in tables 3 and 4.

To quantify the NT, a score is assigned to each of the items listed above: 1 point for the highlighted items; no points for items not highlighted. To determine the level of transparency of a municipality, the number of items highlighted must be divided by the total number of items (32 items), which results in a percentage in decimal that can vary from 0 to 1; the closer to 1, the more transparent the municipality is considered. The formula is demonstrated below In table 4, as well as the determining factors selected from the studies empirical analyzed in the theoretical framework.

Table 4. – Summary of variables used at the study.

Type	Variable	Definition
Dependent	NT	Variable quantitative what varies from 0 to 1, obtained from from the score of 32 items in disclosure mandatory required for the LRF It is for the LAI.
Explanatory	GDP *per capita*	Indicator of level in activity economic of the municipality.
	total GDP	Indicates the level of total economic activity in the municipality.
	Population	AND O number in population in each County.
	HDI	Index what give me O level in human development on one County, The leave in indicators in education, longevity It is income.
	IFDM	Index what it has O goal in to accompany O human development, economic It is Social in each County.

Source: elaboration own.

3.2. Research hypotheses

a) There is a significant relationship between the level of transparency and the total population: it is assumed that municipalities with a larger population tend to present greater transparency in their management, based on studies by Cruz, Silva and Santos (2009); Rossoni (2013); Leite Filho, Andrade and Colares (2014) and Marques (2014).

b) There is a relationship between the level of transparency and GDP per capita: according to Cruz, Silva and Santos (2009) and Brocco et al. (2018), GDP per capita is an indicator that measures the level of economic activity in the municipality. Municipalities with a higher level of economic

activity are expected to have a higher level of transparency, according to results from Cruz et al. (2010).

c) There is a relationship between the level of transparency and the IDHM: according to the UNDP (2016), the IDHM "is a measure composed of indicators of three dimensions of human development: longevity, education and income". It is expected that municipalities with a higher level of IDHM will present greater transparency in their management, according to studies by Cruz, Silva and Santos (2009); Cruz et al. (2010); Souza et al. (2013); Leite Filho, Andrade and Colares (2014) and Costa and Torres (2015).

d) There is a relationship between the level of transparency and the municipality's total GDP: GDP per capita is an indicator that measures the municipality's level of economic activity. A positive relationship with the municipality's total GDP is expected, according to the work of Cruz, Silva and Santos (2009) and Cruz et al. (2010).

e) There is a relationship between the level of transparency and the consolidated IFDM: the Firjan Municipal Development Index is, according to the FIRJAN System, a study that annually monitors the socioeconomic development of Brazilian municipalities in the areas of employment and income, education and health . The variable is expected to have a significant relationship with the observed transparency, as in the studies by Cruz et al. (2010); Machado (2013) and Rossoni (2013).

3.3-. Statistical Model

The analysis technique used was multiple linear regression, using the Ordinary Least Squares (OLS) method, with *cross section data* . The Rcmdr software was used for operationalization.

The dependent variable of this research is the Level of Transparency (NT), what he was built with base at the study in Ax (2013) and Broccco et al (2018), in order to investigate the explanatory factors that may be correlated to the your results.

To carry out the empirical tests, all variables that could explain the objectives developed in the study were initially tested. To this end, alternative multiple linear regressions were carried out to measure the significant variables, and determine the most representative betas that were related to the level of transparency. The data were checked for linearity, homoscedasticity, multicollinearity and normality. Therefore, problems of multicollinearity and normality were found. To solve the problems, the variables 'GDP per municipality' and 'population' were excluded, as these resulted in the variable 'GDP *per capita* '. As for normality, missing observations and discrepant data were excluded, which corresponded to the municipalities of Bernardo do Mearim, Mata Roma and New York.

Next, the expression for analyzing the objectives of this research is defined.

$$NT = 23{,}19368 + 52{,}56850.IDHM + 2{,}61936.IDFM + 0{,}05982.PIBp + \mu \qquad (1)$$

Where: NT – Level in Transparency; HDI – Index in Development Human Municipal; IFDM – Index FIRJAN in Development Municipal; GDPp – GDP *per capita* and μ – Error residual of model in regression.

Source: elaboration own.

The model used for analysis is composed of the dependent variable NT (Level of Transparency), what represents O level in transparency of the counties, It is to the variables explanatory GDP per capita and log of total GDP of municipalities , log of Population, IDHM and IFDM. The mistake represents the residual error of the regression model. The expected sign of the variables' betas explanatory in agreement with the premises theoretical It is $\beta > 0$.

4-. ANALYSIS

Initially, the research variables were demonstrated descriptively, as seen in Table 1.

	Population size			
	Small			
	Average	Standard deviation	Minimum	Maximum
HDI	0.57	0.04	0.44	0.68

IFDM	0.52	0.09	0.00	0.68
GDP per capita	7.40	8.19	3.43	93.94
NT (%)	54.68	13.60	15.63	84.83
Midfielders				
HDI	0.6	0.04	0.54	0.69
IFDM	0.55	0.06	0.44	0.66
GDP per capita	8.28	6.12	4.88	30.43
NT (%)	57.23	14.65	21.88	84.38
Big ones				
HDI	0.68	0.06	0.60	0.77
IFDM	0.65	0.06	0.58	0.76
GDP per capita	12.47	6.66	5.81	23.74
NT (%)	65.28	19.54	31.25	90.63

Description of what you find important here (…)

applied O model in regression linear multiple, using the ordinary least squares method. In Table 2, the results of the model regression.

Table 1. Regression Results.

	Coefficients	P-value
	Regression	0.044*
	HDI	0.024*
Model summary	IFDM	0.821
	GDP per capita	0.631
	R square	0.038
	Adjusted R-squared	0.024

The table presents the regression results. The significances of the variables are presented at *5%. The variables analyzed are: Transparency Level – NT; GDP *per capita* –GDPp; Municipal Human Development Index – IDHM and Firjan IndexMunicipal Development – IFDM.

Source: elaboration own

The model showed significance at the 5% level. With the analysis of the variables individually, it is observed that only the Municipal Human Development Index is significant in relation to Transparency Level, also at 5%. Thus, it is observed that as the IDHM increases one point, the NT increases by 52.57%. The other variables are not considered explanatory factors for the increase in NT.

The explanatory variable IDHM has a positive relationship with the dependent variable NT. With this, it is concluded that the IDHM is an explanatory factor for the level of transparency of municipalities. This result is similar to the study by Cruz, Silva and Santos (2009); Cruz et al. (2010); Souza et al. (2013); Leite Filho, Andrade and Colares (2014) and Costa and Torres (2015), who found a significant relationship between these variables.

This result presented in comparison to previous studies (Leite Filho, Andrade and Colares (2014) and Costa and Torres (2015) demonstrates similarity in the sample, as these researchers also used Brazilian states with low MHDI indices.

5-. CONCLUSIONS

The choice of the topic is linked to the fact that it is current, important for society as a whole and there is little research in the area that verifies the level of transparency in Brazilian municipalities. The evidence shows that municipalities in Maranhão must seek to comply with the requirements of the LRF and LAI with greater effort , as some municipalities do not provide the basic data necessary for research.

The main objective of this research was to analyze the relationship between socioeconomic and demographic indicators and the level of transparency of municipalities in the state of Maranhão. Based on previous studies and through mandatory items required by the LRF and LAI, a set of 32

questions based on the LRF and LAI were constructed and verified on the websites of municipalities in the state of Maranhão.

To identify the explanatory factors for the level of transparency of the municipalities, five explanatory variables were tested, which were expected to explain the dependent variable NT, namely: the Population log, the GDP per capita, the Municipal Development Index (IDHM), the log of the municipality's total GDP and Firjan Municipal Development Index (IFDM).

Thus, the results of the multiple linear regression model indicate that only the IDHM explains the NT of the municipalities researched. It is clear that the results of this study are different from those found by Machado (2013) and Brocco et al. (2018) who demonstrated that only the IFDM presented statistical significance (among the variables used in both studies).

In this way, the variables, the factors tested, IFDM and GDP per capita, do not impact the transparency index of the municipalities of Maranhão, Maranhão, which then diverges from the findings of other states such as Tocantins, which was analyzed by Broco et al (2018), and by Silva et al (2019) who analyzed the municipalities of Espírito Santo and found statistical significance with these indicators.

For future analyses, it is suggested to analyze the municipalities of other Brazilian states and compare them to this study, or even add other variables to the research on the topic that can explain the level of transparency of the municipalities.

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