

Municipal Fiscal Performance: does the Human Capital make a difference?

Desempenho Fiscal Municipal: o Capital Humano faz diferença?

Lucilene Rodrigues de Melo

Fucape Business School

lucilenermelo@hotmail.com

ORCID: <https://orcid.org/0000-0002-9691-8996>

Olavo Venturim Caldas

Fucape Business School

olavoventurim@fucape.br

ORCID: <https://orcid.org/0000-0001-9188-3061>

ABSTRACT

This research aims to verify whether mayors' and councilors' Human Capital influences the fiscal performance of Brazilian municipalities. The existing literature attributes the fiscal results of municipal management to mayors. However, taking into consideration the Human Capital Theory, we sought to verify the influence of the legislative municipal power on this issue. The sample was comprised of Brazilian municipalities from 2013 to 2019. Quantitative descriptive methodology with longitudinal section and multiple linear regression was used to analyze the phenomena discussed in this research. The fiscal performance was measured based on the Fiscal Autonomy Index (IAF), general IFGF, IFGF autonomy, IFGF personnel, IFGF liquidity, and IFGF investment. To measure Human Capital, the following information was considered: one's education level, age, and occupation in public administration before inauguration. The results demonstrated that the Human Capital influences most components of fiscal performance, but the experience of councilors is not beneficial for fiscal management.

Palavras-chave: Human Capital; fiscal performance; mayors and councilors.

RESUMO

Esta pesquisa tem como objetivo verificar se o Capital Humano de prefeitos e vereadores influencia o desempenho fiscal dos municípios brasileiros. A literatura existente atribui os resultados fiscais da gestão municipal aos prefeitos. Contudo, levando em consideração a Teoria do Capital Humano, procuramos verificar a influência do poder legislativo municipal nesta questão. A amostra foi composta por municípios brasileiros de 2013 a 2019. Utilizou-se a metodologia descritiva quantitativa com corte longitudinal e regressão linear múltipla para analisar os fenômenos discutidos nesta pesquisa. O desempenho fiscal foi medido com base no Índice de Autonomia Fiscal (IAF), IFGF geral, autonomia do IFGF, pessoal do IFGF, liquidez do IFGF e investimento do IFGF. Para mensurar o Capital Humano foram consideradas as seguintes informações: escolaridade, idade e ocupação na administração pública antes da posse. Os resultados mostraram que o Capital Humano dos prefeitos e vereadores tem influência no desempenho fiscal em termos gerais.

Keywords: Capital Humano; Desempenho fiscal; Prefeitos e vereadores.

Introduction

The mayor is considered the head of management in local public administration, unifying the political and administrative functions (Avellaneda, 2009; Avellaneda & Gomes, 2015, 2017). The manager's managerial capacity influences fiscal results as he or she is primarily responsible for the municipality's strategic decisions (Avellaneda, 2009; Avellaneda & Gomes, 2015; Freier & Thomasius, 2016; Gallina et al., 2019; Gomes et al., 2013; Rocha et al., 2018).

The literature points out that the education and experience of municipal managers make a difference in the direction of management; the combination of these characteristics is the basis of the Human Capital (HC) theory disseminated by Mincer (1958), Schultz (1961), and Becker (1994).

Corroborating this understanding, research has analyzed the influence of the municipal manager's level of education and experience on management performance (Avellaneda & Gomes, 2015, 2017; Freier & Thomasius, 2016; Gallina et al., 2019; Rocha et al., 2018; Silva & Sales, 2018). However, there are no studies that consider the relationship between the level of education and experience of members of the legislature and the fiscal results achieved by local administrative units. Management success is linked to the political support of the legislature, but management results are mostly attributable to the mayor's HC (Avellaneda & Gomes, 2009). Nonetheless, relations based on the legal system of a democratic state of law have assigned to the legislative power the functions of control, supervision, and regulation of public administration structures, and qualify it as an instrument of governance (Fiscal Responsibility Law [LRF], 2000; Lui, 2017; Kissler & Heidemann, 2006; Federal Court of Auditors [TCU], 2014). According to Travaglia and Sá (2017), public governance has its origins in corporate governance, based on Jensen and Meckling's Agency Theory (1976). In this context, corporate and public governance are similar in nature. Therefore, it is understood that in the public sector, politicians are agents who represent the interests of the principal, the people.

From a governance perspective, the legislative power is like the board of directors of private companies, due to the representation of interests. Thus, research shows that the HC of board members influences company performance in the private sector (Nguyen et al., 2017; Valenti & Horner, 2020; Khanna et al., 2014).

In the studies by Nguyen et al. (2017), the findings indicate that qualifications, skills, and experience are components that can increase the credibility of the board of directors of Vietnamese companies, strengthening their image and generating financial benefits.

As in the private sector, where HC is recognized as a productivity factor, research in the public sector has shown that it is not only the HC of the municipal manager that contributes to improving performance, but also that of the civil servants who carry out operational activities, as shown by the studies by Cardoso and Marengo (2019) and Marengo, Strohschoen and Joner (2017). These authors found evidence that the level of education of civil servants contributes to better results in the Gini index, MHDl, and in the collection of Urban Property Tax (IPTU).

This context led to the following question: Does the HC of mayors and councilors influence fiscal results?

To answer this question, this research aimed to verify the influence of the HC of mayors and councilors (level of education and experience) on fiscal performance.

Existing studies have focused on capturing the influence of mayors' education and experience on their tax collection capacity. This research, however, takes up this line of investigation by including the Fiscal Autonomy Index (IAF), based on the studies by Gomes et al. (2013) and Gallina et al. (2019), and also broadens the scope by using the Firjan Fiscal Management Index (IFGF) as the dependent variable and its four data strands: autonomy, personnel expenses, liquidity and investment, expanding the analysis to other factors that have not yet been tested.

The aim is to establish a new understanding of the literature on the sharing of responsibilities between mayors and councilors, who submit the administrative influences of the legislative power to party-political interests (Avellaneda & Gomes, 2017; Demir & Reddick, 2012; Santiso, 2005).

In any case, it must be realized that decisions have political influences, especially in the management structure adopted in Brazil. In the study by Wei (2020), which analyzes analyzes municipal political and administrative structures, the best fiscal results are attributed to the structure that values the qualifications and experience of the manager. This shows that the fiscal efficiency of management can be reduced due to political decisions.

Regardless of the legal functions, the sharing of administrative responsibilities between the executive and the legislature should be part of governance designs and contribute to the performance of the administration, even in localities where the political-administrative structure is formed by the mayor-council and manager-council figures (Lui, 2017; Wei, 2020; Demir & Reddick, 2012).

In addition to sharing, according to Askim (2009), a qualified politician has a holistic view of the federative entity, including all its political, administrative, economic, and social functions, and from this perception can assign functions and interpret information in such a way as to construct their own opinions that are in line with what society expects.

This research is relevant given the breadth of the sample and the inclusion of the profile of the city councils, analyzing their relevance in all Brazilian municipalities. In this way, it reflects on the co-responsibility of legislative chambers about the fiscal results of local public administration, assuming that the educational background and experience of councilors can be just as important as that of managers, consequently, contributing to new conceptions regarding the eligibility prerequisites of politicians and their political-administrative accountability.

The research was based on secondary, quantitative, and longitudinal data collected from public databases, and statistical analyses were carried out using multiple linear regression in Stata® software. The findings suggest that the level of education of mayors and councilors correlates positively with the IAF, general IFGF, and autonomy IFGF; however, the administrative experience of councilors hurts the proposed indices.

Theoretical background

Human Capital

The HC theory has its origins in the studies of Mincer (1958), Schultz (1961) and Becker (1994), and is defined as the union of formal education, skills, and experience. It emerged as a counterpoint to the Economic Growth Theory, which stated that a nation's wealth is made up of the factors of production: capital, natural resources, and labor (Viana & Lima, 2010).

For Becker (1994), HC can be defined as the union of formal education and training added together over the course of an individual's career, capable of generating monetary or non-monetary benefits and adding value as a professional and human being.

In the private sector, discussions around the importance, constitution, and preservation of HC as a factor of performance, productivity, and competitiveness are recurrent (Nguyen et al., 2017; Khanna, 2013; Valenti & Horner, 2020).

Khanna et al. (2014) related the HC of 5,700 directors in 650 Fortune 1000 companies about ROA and ROE, concluding that the HC of the board of directors influences the overall performance of companies. The authors not only presented the importance and benefits of the HC of the directors who make up the corporate governance structure but also pointed out that the overload of members can limit the functions of the board of directors and the utilization of the directors' capacity due to cognitive limitations and the ability to process information, even when they have significant qualifications, experience, and skills.

Although HC has been considerably explored in the private sector as an element of productivity and financial performance, it has been little discussed in the public sector as a performance differential. However, some research has shown the relevance of education in public administration, such as Cardoso and Marengo (2019), who analyzed the level of education of civil servants in small town halls and its influence on the performance of the Municipal Human Development Index (MHDI) and the Gini, an index that measures the concentration of wealth in a given group. The results reaffirm that educational training contributes to better results, whether in the MHDI or Gini, and the findings are based on the argument that greater state capacity is linked to effectiveness in implementing public policies.

Marengo et al. (2017) also found evidence that the capacity of civil servants contributes to better results in IPTU collection, especially in Brazil's micro and small municipalities. In this way, the concepts that have already been solidified in the private sector regarding the importance of education in achieving better results have also been consolidating in the public sector and supplanting the idea that its importance is restricted to strategic decision-makers.

According to Khanna et al. (2014), HC contributes to organizational results when it is held by senior management, especially those who make strategic decisions or evaluate and monitor them, and not just by employees who carry out operational activities.

Under Brazilian law, the prerequisites for choosing politicians do not include educational background or experience, except for "reading and writing". However,

some studies analyze the importance or influence of these variables in municipal management, focusing on the executive branch, and testing their influence on IPTU collection (Avellaneda, 2009; Avellaneda & Gomes, 2015, 2017); per capita spending (Avellaneda, 2009); financial performance (Gomes et al., 2013; Silva & Sales, 2018; Gallina et al., 2019); debts, expenses, and taxes (Freier & Thomasius, 2016) and fiscal indicators (Rocha et al., 2018). However, these studies are limited to the HC of the manager, in this specific case, the mayors who hold the political and administrative functions (Avellaneda, 2009; Avellaneda & Gomes, 2017).

Avellaneda and Gomes (2015) investigated whether the size of the population, education, and experience of the mayor are correlated with municipal performance, which is represented by the average property tax per municipality, from 2005 to 2007. The study sampled the 787 municipalities of the state of Minas Gerais in Brazil. The results showed that the mayor's education and age influence the collection of IPTU.

According to Avellaneda and Gomes (2015), the HC of the manager affects performance by influencing the strategic direction adopted. For the authors, Human Capital may be more relevant in larger administrative units due to the demand for greater management and coordination; managers would be less inclined to make random decisions and more likely to make decisions focused on technical capacity. Charges and legal consequences are weighed against administrative determinations (Avellaneda & Gomes, 2015; Khanna, 2013). The history of research on HC about performance in local administrations has focused on the capacity of managers as if they were solely responsible for the good or bad results obtained.

For Demir and Reddick (2012), the functions of the executive and legislative branches should be complementary. Their research is focused on the dichotomy between administration and politics in local administrative structures in the USA, configured by the council-manager regime (political x administrative), unlike Brazilian local administrations, where the political function is shared between the executive and the legislature, with only the administrative axis remaining as the central agenda and function attributed to the executive. The context of their research becomes imperative because it focuses on the fact that local powers should not be restricted to administrative or political activities in isolation.

According to Wei (2020), interests in re-election channel time and resources into strengthening political connections, whether with elected representatives, interest niches, or electoral bases, and such processes, end up mitigating results or even precluding more effective policies.

Like the board of directors, that protects the interests of shareholders, the legislature must protect the interests of society by supervising management acts, by the duties assigned by the Brazilian Federal Constitution (1988) and the LRF (2000).

From a governance perspective, the checks and balances between the executive and the legislature are presented as steering, evaluation, and monitoring mechanisms (Kissler & Heidemann, 2006; Lui, 2017; TCU, 2014). The relationships established between the executive and the legislature are part of the governance process, and it is important to realize that these interactions are aimed at balancing power, preventing

it from being concentrated in the manager, and striving to achieve the best results (Lui, 2015).

The involvement of local representatives in administrative issues is more apparent when they become political issues, as involvement with the administration can give elected officials greater visibility, contributing to possible re-election (Demir & Reddick, 2012). To imply that management performance depends solely on the head of the executive branch may be to nullify the effectiveness of monitoring management results.

Taaibosch and Niekerk (2017) argue that to carry out the activities inherent to the role, councilors need basic education, which favors a broad vision for any activities, and training to develop technical skills for monitoring administrative activities. According to the authors, councilors are "guardians" of public finances, and their knowledge is relevant to the execution of their mandates.

The figure of the legislature is portrayed in the literature in two ways: a legislature that fails to fulfill its monitoring and oversight role, permeated by party-political interests that are detrimental to the state's fiscal control (Santiso, 2005), and a legislature that is a necessary governance structure. It inhibits the executive's discretion over the budget because it represents a checks and balances mechanism in a democratic state of law and can avoid electoral bargaining (Lui, 2017; Santiso, 2005; TCU, 2014).

Fiscal management

Federalism gave rise to sub-national units, which are the territorial, political, and administrative subdivisions of sub-units of a system of government, ruled by Article 1 of the 1988 Federal Constitution. The justifications for political-administrative decentralization lie in proximity to the most urgent needs of the population and the possibility of greater control by citizens, as they are closer to their political representatives (Dantas et al., 2019; Suzart et al., 2018).

Institutional Federalism gave rise to Fiscal Federalism, defined as the sharing of tax competencies and obligations about public policies (Dantas et al., 2019). Municipal entities were assigned exclusive and shared obligations; however, the fiscal management of these subnational units has been compromised by scarce resources (Suzart et al., 2018).

Complementary Law No. 101 of 2000 was enacted to establish guidelines for greater control of finances in the three branches of government. In this way, the fiscal management of municipalities is evaluated from the perspective of this law, and although this is attributed to the mayor, the LRF (2000) establishes in its Article 59 that the legislative power is responsible, directly or with the help of external and internal control bodies, for monitoring the rules laid down.

For proper fiscal control, this law established fiscal limits and rules that help supervisory bodies monitor management. In addition to the dictates of this law, other indices have been constructed to ascertain the efficiency of administrations, such as the Firjan index, which was created based on the guidelines and liabilities imposed by the LRF (2000).

Given the above, recent research has focused on the ability to generate revenue and control expenditure, which could be explained by the profile of the local manager, with evidence that the level of formal education of municipal managers and/or experience is positively correlated with performance indicators (Avellaneda, 2009; Avellaneda & Gomes, 2015; Gallina et al., 2019; Gomes et al., 2013; Freier & Thomasius, 2016; Rocha et al., 2018). Based on these studies, the first hypothesis was formulated:

H1: The level of education of mayors is positively correlated with Fiscal Performance.

Investments in education and experiences acquired throughout life, whether in the private or public environment, are components that enable the formation of knowledge and skills, the real essence of HC (Nguyen et al., 2017). In this sense, these measures allow us to infer the likely benefits, while it is not possible to identify the quality or quantity of knowledge and skills that permeate each individual.

In the legislative sphere, the knowledge acquired can be applied to the monitoring, control, and inspection of finances; it can generate greater caution on the part of the mayor when making decisions and conducting administration.

In the context of the importance of education, Baldissera et al. (2020) found evidence that a population's level of education can exert greater pressure on public managers, contributing to the transparency of management acts. In this understanding, it is assumed that the more a manager is supervised, especially by members with a higher level of knowledge, the greater the chances of establishing management control, which can generate better results.

Important research in the private sector shows that the level of education of the board of directors affects the performance of the administration (Nguyen et al., 2017; Valenti & Horner, 2020; Khanna et al., 2014), which gives rise to assumptions that the HC of municipal councils can generate better fiscal indicators. This line of interpretation motivated the second hypothesis:

H2: The level of education of councilors is positively correlated with Fiscal Performance.

Although responsibility for the budget and fiscal discipline is attributed to the executive, the literature disseminates that the concentration of power in the executive creates opportunities for corruption and mitigates fiscal results, so the legislature presents itself as the link of checks and balances and should be responsible for overseeing finances (Lui, 2017; Santiso, 2005; Taaibosch & Niekerk, 2017).

One of the components of HC is experience, measured through years of activity in private or public positions (Khanna et al., 2013; Freier & Thomasius, 2016; Gomes et al., 2013; Valenti & Horner, 2020) and/or age (Avellaneda & Gomes, 2015). In the studies by Avellaneda and Gomes (2015), age was used as a *proxy* for experience and showed significance in the ability to collect IPTU, which was replicated in this research. For the authors, age can be a component that adds skills acquired over time through professional experience. This line of interpretation motivated the third and fourth hypotheses:

H3: Municipalities managed by older mayors have better Fiscal Performance.

H4: Municipalities supervised by older councilors have better Fiscal Performance.

For Valenti and Horner (2020) and Khanna et al. (2013), the experience of the board is seen as a factor of competitiveness and is favorable to better financial results. For the authors, the directors' experience in related activities in other companies generates a multifaceted view of organizational monitoring. However, for local councils that don't have professional selection based on experience, the accumulation of skills can influence management monitoring, generating better indicators. As related experiences, we suggest that holding positions in public administration, as well as in elected office, can improve management and oversight capacity. This line of interpretation motivated the fifth and sixth hypotheses:

H5: Municipalities managed by mayors with previous experience in public office have better Fiscal Performance.

H6: Municipalities supervised by councilors with previous experience in public office have better Fiscal Performance.

Research Methodology

Sample data

To achieve the proposed objective of verifying whether the HC of mayors and councilors influences fiscal performance, the 2012 and 2016 elections were selected for data collection. The sample consisted of the 5,570 municipalities of the Federative Republic of Brazil, excluding the Federal District and the Territory of Fernando de Noronha due to their political and administrative peculiarities. This study was based on secondary data and is characterized as descriptive, quantitative, and longitudinal.

The information on the elected candidates was collected from the Superior Electoral Court (TSE), the accounting data from the Brazilian Public Sector Accounting and Fiscal Information System (SICONFI), for the periods 2013 to 2015 and 2017 to 2019. The FIRJAN index was obtained from the website of the Federation of Industries of the State of Rio de Janeiro. The GDP information was taken from the Brazilian Institute of Geography and Statistics (IBGE) and the media data was collected from the Ministry of Science and Technology (MCTI).

Election years 2016 and 2020 were excluded from the sample due to evidence pointed out by Cavalcante (2016) that in election years there is evidence of lower revenue and higher investment spending, prioritizing spending that may be more noticeable to the electorate. In addition, the year 2020 adds the impacts of the Covid-19 pandemic as an exclusion factor.

Description of the variables

The first dependent variable is the Fiscal Autonomy Index (IAF). This indicator is an adaptation of the Financial Performance Management Index first proposed by Gomes et al. (2013) and then re-adapted by Gallina et al. (2019). The indicator shows the capacity of local administrations to meet the total expenditure generated.

For a broader look at fiscal performance, the Firjan Fiscal Management Index (IFGF) was included, which indicates the performance of municipalities in four areas: autonomy, personnel expenditure, investment, and liquidity.

The IFGF index uses data from 5,568 Brazilian municipalities, based on official fiscal information sent by the municipalities to the National Treasury Secretariat (STN). The purpose of the index is to provide comparative information on fiscal efficiency in all Brazilian municipalities. One limitation is the lack of data for the 2019 financial year.

For the HC of mayors and councilors, three *proxies* were defined: completed higher education, experience in public service (municipal, state, or federal) or holding elected office, and age. Experience in elected office was defined based on the declaration of occupation to the TSE, considering the positions of deputy, senator, mayor, and councilor, as well as data on re-election for mayors and councilors collected from the TSE, IBGE, and 2008 elections. The availability of data on the Gross Domestic Product, calculated by the IBGE, was limited, as information on this variable was only released up to the 2018 financial year, which was deflated using the 2010 financial year as a reference. For all annual data, we calculated the average from 2013 to 2015 and 2017 to 2019.

Table 1 - Variables Description

Dependents	Code	Description	Source
IAF	IAF	Total revenue minus transfers divided by committed expenditure.	Gomes et al. (2013); State Industries Federation of Rio de Janeiro (Firjan).
IFGF	IFGF	Arithmetic average: autonomy, personnel expenses, liquidity, and investments.	
IFGF autonomy	IFGF_aut		
Personalised IFGF	IFGF_pess		
IFGF liquidity	IFGF_liq		
IFGF investment	IFGF_invest		
Independents	Code	Description	Source
Scholars	edu_pref	<i>Dummy</i> , being 1 for higher level and 0 otherwise.	Avellaneda (2009); Avellaneda and Gomes (2015); Avellaneda and Gomes (2017); Freier and Thomasius (2016)
	edu_vere	Councilors proportion with complete high education by the municipality	

Experience	exp_adm_pref	<i>Dummy</i> , being 1 for experience in public administration and 0 otherwise	Freier and Thomasius (2016); Valenti and Horner (2020); Rocha <i>et al.</i> (2018); Nguyen <i>et al.</i> (2017).
	exp_adm_vere	Councilors proportion with experience in public administration by municipality	
	exp_id_pref	Natural logarithm of mayors' age	Avellaneda and Gomes (2015).
	exp_id_vere	Average natural logarithm of age Average natural logarithm of age of the Chamber of Deputies	
Control	Code	Description	Source
GDP per capita	pib_per	The total wealth generated in year t divided by the population	Avellaneda and Gomes (2015;2017); Gomes <i>et al.</i> (2013).
Gender	gen_pref	<i>Dummy</i> , being 1 for male and 0 for female	Rocha <i>et al.</i> (2018).
	gen_vere	Proportion among councilors males about total	
Electoral competition	cp_pref	The effective number of parties	Golosoov (2010).
	cp_vere		
Medias	Broadcasting	Numbers of radios by municipalities	(Ciarelli & Avila, 2019; Pieranti, 2008; Pieranti & Martins, 2007).
	Tv station	Numbers of TV stations by municipalities	

Source: elaborated by author 2021.

The effective number of parties was calculated from an evolving formula by Golosoov (2010):

$$\beta 1_{edu_prefit}$$

In which:

N_p : effective number of parties;

S^2 : the largest component in the proportion of party votes division;

1

X : components of the proportion of party votes division;

S_i : components or other components in the party votes division;

For example:

Election with a total of 60,000 nominal votes, including 51% in party A, 35% in party B, and 14% in party C, we will have:

$$N_p = \sum_{i=1}^3 \left[\frac{1}{1 + \left(\frac{0,51_1^2}{0,51_1}\right) - 0,51_1} + \frac{1}{1 + \left(\frac{0,35_2^2}{0,35_2}\right) - 0,35_2} + \frac{1}{1 + \left(\frac{0,14_3^2}{0,14_3}\right) - 0,14_3} \right]$$

$$N_p = 2,62$$

The example tends to demonstrate the simplicity of the Golosov formula (2010), demystifying its complexity and propitiating its application through an intuitive form. The variable electoral competition considered roll-call votes per party according to the TSE data. The Golosov mensuration aims to intuitively measure the real competition through the effective number of parties (N_p). The higher the index is, the greater the political competition is, which can contribute to a diversified opposition and possible incentives for better fiscal results.

Econometric Model

To verify the proposed objective, the influence of the human capital (education and experience) of mayors and councilors on fiscal performance indicators, the model adopted was a multiple linear regression (MQO). The data was processed in an Excel spreadsheet and then in Stata® software.

Regression:

$$DF = \beta_0 + \beta_1 edu_pref_{it} + \beta_2 exp_id_pref_{it} + \beta_3 exp_adm_pref_{it} + \beta_4 edu_vere_{it} + \beta_5 exp_id_vere_{it} + \beta_6 exp_adm_vere_{it} + controles_{it} + \varepsilon_{it}$$

Being:

DF- Fiscal Performance = $IAF + IFGF_{geral} + IFGF_{aut} + IFGF_{pess} + IFGF_{liq} + IFGF_{invest}$

B0: Constant

$\beta_n X_{it}$: Independent variables

controles_{it} control variables for municipality i;

ε_{it} : represents the random error term.

To answer the objective of this research, the regression coefficients β_1 , β_2 , and β_3 are associated, respectively, with hypotheses H1, H3, and H5, while β_4 , β_5 , and β_6 are associated with hypotheses H2, H4, and H6.

For a better understanding, sub-hypotheses were created, considering that each independent variable tests six dependent variables, components of Fiscal Performance. See the table below.

Table 2 - Hypothesis Control

Hypotheses/Variables		IAF		IFGF		IFGF_aut		IFGF_pess		IFGF_liq		IFGF_invest	
Hypothesis 1	$\beta 1_{edu_pref_{it}}$	H1a	+	H1b	+	H1c	+	H1d	+	H1e	+	H1f	+
Hypothesis 2	$\beta 4_{edu_vere_{it}}$	H2a	+	H2b	+	H2c	+	H2d	+	H2e	+	H2f	+
Hypothesis 3	$\beta 2_{exp_id_pref_{it}}$	H3a	+	H3b	+	H3c	+	H3d	+	H3e	+	H3f	+
Hypothesis 4	$\beta 5_{exp_id_vere_{it}}$	H4a	+	H4b	+	H4c	+	H4d	+	H4e	+	H4f	+
Hypothesis 5	$\beta 3_{exp_adm_pref_{it}}$	H5a	+	H5b	+	H5c	+	H5d	+	H5e	+	H5f	+
Hypothesis 6	$\beta 6_{exp_adm_vere_{it}}$	H6a	+	H6b	+	H6c	+	H6d	+	H6e	+	H6f	+

Source: Prepared by the author 2021.

Res pulled

Descriptive statistics

The descriptive statistics in Table 3 show the mean of the variables, standard deviation (SD), maximum, minimum, and percentiles (p25, p50, p75) of the sample composition. The education of mayors was relatively homogeneous, with more than 50 percent of Brazilian mayors having completed higher education.

Table 3 - Descriptive Statistics

Variables	Average	Standard deviation	Min.	p25	p50	p75	Max.	Obs.
IAF	0.13	0.10	0.03	0.06	0.11	0.19	0.36	11050
IFGF_general	0.44	0.19	0.01	0.29	0.43	0.58	1	11019
IFGF_aut	0.37	0.39	0	0	0.23	0.74	1	11019
IFGF_pess	0.41	0.29	0	0.17	0.38	0.61	1	11019
IFGF_liq	0.50	0.30	0	0.27	0.52	0.70	1	11019
IFGF_invest	0.48	0.23	0	0.30	0.45	0.64	1	11019
edu_pref	0.51	0.50	0	0	1	1	1	11136
exp_id_pref	48,5	10,4	21	41	48	55	89	11136
exp_adm_pref	0.39	0.49	0	0	0.00	1.00	1	11136
edu_vere	0.23	0.17	0	0.11	0.22	0.33	0.91	11136
exp_id_vere	43,7	3.75	29	41	43	46	56	11136
exp_adm_vere	0.47	0.17	0	0.33	0.44	0.56	1	11136
gen_pref_masc	0.88	0.32	0	1	1	1	1	11136
gen_vere_msc	0.86	0.11	0.33	0.78	0.89	0.93	1	11136
ln_pib	9.27	0.69	7.78	8.67	9.24	9.74	13.13	11136
broadcasting	0.38	0.86	0	0	0	1	14	11136
broadcaster_tv	1.11	1.64	0	0	0	2	18	11136

cppref	1.94	0.49	0	1.70	1.88	2.06	6.82	11136
cpvere	6.97	3.49	1.09	4.30	6.35	8.93	27.24	11136

Source: Elaborated by the author 2021. Note: description of variables in Table 1.

On average, the Fiscal Autonomy Index of Brazilian municipalities is 13%, and the maximum is 36%; this data shows that a large part of municipal revenue comes from transfers, confirming a situation of limited tax collection capacity, even in the largest municipalities.

An average of 23% of councilors have a university degree, a low percentage considering the data for mayors. According to Avellaneda and Gomes (2015), the level of education of mayors is associated with a broad vision of public administration and a likelihood of choices based on technical capacity. On the other hand, the level of education of councilors can be an important element when it comes to interacting with and challenging the mayor's decisions.

In addition to education, we have experience as a component of human capital. Based on the sample, it is estimated that 47 percent of municipal councils are made up of representatives with experience in public administration, either as a civil servant or in elected office.

Results and Discussions

Table 4 shows the results of the regression analyzing the influence of the CH of mayors and councilors on fiscal performance in Brazil's 5,568 municipalities from 2013 to 2015 and 2017 to 2019. Six regressions evaluate the IAF and all the dimensions of the FIRJAN Index using the same independent variables. Multiple linear regression was defined according to the model below.

Regression:

Desempenho Fiscal

$$= \beta_0 + \beta_1 \text{edu_pref}_{it} + \beta_2 \text{exp_id_pref}_{it} + \beta_3 \text{exp_adm_pref}_{it} \\ + \beta_4 \text{edu_vere}_{it} + \beta_5 \text{exp_id_vere}_{it} + \beta_6 \text{exp_adm_vere}_{it} + \text{controles}_{it} \\ + \varepsilon_{it}$$

Given the nature of the data, linear regression with robust effects was applied to correct for heteroscedasticity, justified by the number of periods surveyed. The IAF variable was winsorized at 5% due to outliers.

Linearity between the variables was verified using the Spearman test, and the indication of multicollinearity was ruled out using the VIF (variance inflation factor) test. Fávero, Belfiore, Takamatsu, and Suzart (2014) argue that a VIF greater than 5 already indicates multicollinearity.

The proposed sample has a VIF of 1.17 for all the models. The Kolmogorov-Smirnov test showed that the residuals were normal, but we can invoke Pierre Simon Laplace's Central Limit Theorem, which states that "the sampling distribution of any mean becomes normal as the sample size increases" (Norean, Veaux & Velleman, 2011, p. 279).

The F-test was significant, indicating that the proposed models are capable of explaining the variation in the explained variables.

Table 4 - Multiple Linear Regression

Variables	IAF	IFGF general	IFGF_aut	IFGF_pess	IFGF_liq	IFGF_invest
	Coef.	Coef.	Coef.	Coef.	Coef.	Coef.
edu_pref	0.009*** 0.001	0.017*** 0.003	0.035*** 0.005	0.022*** 0.006	0.012** 0.006	-0.000 0.004
exp_id_pref	0.000*** 0.000	0.000 0.000	0.001*** 0.000	-0.001*** 0.000	0.001*** 0.000	-0.001*** 0.000
exp_adm_pref	0.004*** 0.001	0.018*** 0.003	-0.001 0.004	0.031*** 0.005	-0.003 0.005	0.046*** 0.004
edu_vere	0.080*** 0.005	0.052*** 0.011	0.280*** 0.019	0.014 0.019	-0.003 0.021	-0.081*** 0.015
exp_id_vere	0.003*** 0.000	0.002*** 0.000	0.009*** 0.001	0.002** 0.001	0.000 0.001	-0.003*** 0.015
exp_adm_vere	-0.021*** 0.004	-0.077*** 0.009	-0.151*** 0.014	-0.096*** 0.016	0.012 0.017	-0.074*** 0.012
gen_pref_masc	0.007*** 0.002	0.019*** 0.005	0.015* 0.008	0.037*** 0.009	0.004 0.009	0.022*** 0.007
gen_vere_masc	0.048*** 0.006	0.051*** 0.014	0.171*** 0.023	0.021 0.026	0.017 0.028	-0.002 0.020
ln_pib_per	0.063*** 0.001	0.157*** 0.003	0.361*** 0.006	0.143*** 0.005	0.100*** 0.005	0.025*** 0.004
broadcasting	0.024*** 0.002	0.012*** 0.002	0.029*** 0.005	0.025*** 0.004	-0.001 0.005	-0.005 0.003
broadcasters_tv	0.004*** 0.001	0.005*** 0.001	0.017*** 0.002	0.002 0.002	0.004* 0.002	0.004*** 0.002
cppref	0.003** 0.001	-0.018*** 0.003	0.001 0.005	-0.027*** 0.006	0.001 0.005	-0.046*** 0.005
cpvere	0.002*** 0.000	-0.004*** 0.000	0.005*** 0.001	-0.009*** 0.001	-0.005*** 0.001	-0.009*** 0.001
cons	-0.688*** 0.016	-1.111*** 0.032	-3.656*** 0.058	-0.887*** 0.059	-0.518*** 0.061	0.611*** 0.046
Observations	11.050	11.019	11.019	11.019	11.019	11.019
Statistics F	505,02	372,3	842,86	113,83	40,77	60,04
Prob>F	0.000	0.000	0.000	0.000	0.000	0.000
R-squared	0.535	0.406	0.622	0.165	0.064	0.076
Test VIF	1,17	1,17	1,17	1,17	1,17	1,17

Source: elaborated by the author 2021. In which: *, **, and *** denote, respectively, significant coefficients at levels of 10%, 5%, and 1%. Note: description of variables in Table 1.

Based on the regressions, it can be inferred that the mayor's education is related to all the dependent variables, except IFGF investment, thus meeting **H1a**, **H1b**, **H1c**, **H1d**, and **H1e**. The highest coefficient was for the autonomy IFGF ($\beta=0.035$, α at 1%), showing that municipalities managed by mayors with higher education generate 3.5% more resources to support themselves.

The findings are in line with the results of Gallina et al. (2019), in which the capacity to generate revenue was positively correlated, indicating that the higher the mayor's level of education, the greater the municipality's revenue-raising capacity.

The results diverge from the findings of Freier and Thomasius (2016), who found no positive relationship between the education of German mayors and fiscal results (expenditure, debt, and taxes).

In the studies by Avellaneda and Gomes (2017), which sampled the 827 municipalities of Minas Gerais, the mayor's education also did not explain the performance of the collection of Urban Land Tax. However, Rocha et al. (2018) found significant results, showing that Brazilian mayors with a higher level of education tend to spend less on current and personnel expenses, a fact that can be seen in the regression of the personal IFGF with a positive coefficient of 2.2% (α at 1%) and liquidity IFGF 1.2% (α at 5%), indicating that municipalities where mayors with higher education were elected have a lower budget commitment to payroll and more control over leftovers to pay.

About Hypothesis 2, the results show positive and statistically significant evidence at 1% that there is a correlation between the level of education of councilors about the IAF ($\beta=0.080$; **H2a**), general IFGF ($\beta =0.052$; **H2b**) and autonomy IFGF ($\beta=0.280$, **H2c**). We rejected sub-hypotheses **H2d**, **H2e**, and **H2f**, linked to personal IFGF, liquidity IFGF and investment IFGF, respectively. In a more critical analysis, we can see that the education of councilors seems to be more influential in municipal autonomy, given that among the four components of the IFGF, only autonomy showed a high explanatory coefficient. This result may indicate that education can mitigate the inclinations put forward by Santiso (2005) that the legislature is more prone to lower taxes.

However, the effects of monitoring on fiscal results are difficult to measure (Santiso, 2015). According to Taaibosch and Niekerk (2017), a legislature with low levels of knowledge tends to stick to incipient discussions without realizing the more complex demands inherent in the monitoring function. However, given the results, we can suggest that the educational level of councilors may favor greater involvement with administration.

The results show, however, that the level of education has a negative influence on the investment IFGF with a coefficient of -0.081 at a 1% significance level. The correlation with previous studies is hampered by the scarcity of studies relating the effectiveness of management oversight and monitoring to the HC of councilors. However, the investment index is a tortuous indicator to evaluate, as the executive has discretion over the allocation of resources. This is where political interest comes in, or what could be called agency conflicts, from the point of view of Jensen and Meckling's theory (1976).

In addition to higher-level knowledge, the capacity developed, and skills learned over time through professional experience are important (Avellaneda, 2009). Due to the possibility of various accumulative experiences over time, the mayors' age *proxy* shows a positive coefficient about the IAF ($\beta=0.000$; α at 1%; **H3a**) and IFGF autonomy ($\beta=0.001$; α at 1%; **H3c**). Although the coefficients are not very representative, the relationship between age and tax collection performance can be compared to the findings of Avellaneda and Gomes (2015), who found evidence that experience gained over time can influence tax collection performance.

For the personnel and investment IFGFs, the correlation was negative, around -0.001 at 99% confidence, indicating that although older mayors are prone to higher revenue, they spend more on personnel and invest less. Despite this, older mayors control the liquidity IFGF by around 0.1% at 99% confidence. Given the results, the following sub-hypotheses are rejected: **H3d** and **H3f**.

Hypothesis 4, which verifies the correlation between the age of councilors and fiscal performance, was rejected for IFGF liquidity and investment and was accepted for IAF ($\beta=0.003$; α at 1%; **H4a**), IFGF general ($\beta=0.002$; α at 1%; **H4b**), IFGF autonomy ($\beta=0.009$; α at 1%; **H4c**), and IFGF personal ($\beta=0.002$; α at 5%; **H4d**). The coefficients show little significance. However, they indicate that municipalities where councilors have a higher average age, and consequently more experience in the public or private sector, can enable better monitoring of management in terms of the fiscal management indices presented.

Occupation of public administration or elective positions was a second parameter used to measure the level of experience of mayors and councilors. About mayors, the results showed a positive correlation between this variable and the IAF ($\beta=0.004$; α at 1%; **H5a**), general IFGF ($\beta=0.018$; α at 1%; **H5b**), personal IFGF ($\beta=0.031$; α at 1%; **H5d**), and investment IFGF ($\beta=0.046$; α at 1%; **H5f**). The findings indicate that municipalities managed by mayors with previous experience control personnel expenditure better by 3.1 percent. This result is similar to that found by Rocha et al. (2018), when they showed that more experienced mayors spend less on personnel.

Previous experience as mayor in the studies by Freier and Thomasius (2015) was positively correlated with lower debt and local taxes, a controversial fact about the findings of this study, since the IFGF autonomy and liquidity did not show a significant relationship, but we can consider that the *proxy* for experience was not limited to re-election and that the formation of the dependent variables is only similar in nature. Given this evidence, we reject **H5c** and **H5e**.

About the previous experience of councilors, we rejected **H6** in all its sub-items, as the results were negatively correlated with most of the proposed indicators and not significant about the liquidity IFGF. This shows that municipalities with more experienced councilors do not have the best fiscal indicators. Comparisons are frustrated by the lack of previous studies. However, in the private environment, the board of directors also assumes the functions of controlling and monitoring management. Although they are two different atmospheres, public and private, the functions are not opposed, considering the governance mechanisms. In this way, the studies by Khanna et al. (2014) provide evidence that the years of experience of board members in senior

executive positions are capable of improving the company's financial performance, a result that is the opposite of that found in this study about the local legislature.

The result is intriguing, but it may suggest that the experience generates greater involvement with the administration and that this is harmful to fiscal management. This finding is compatible with the literature, which states that the legislative branch is harmful to fiscal balance. According to Santiso (2005), giving the legislature too many powers is detrimental to public accounts and can lead to public deficits, indebtedness, excessive spending, and under-taxation.

As for the control variables, the variation in GDP per capita corroborates the better fiscal results. Studies by Gallina et al. (2019) and Silva and Sales (2018) found a significance between GDP and fiscal performance, also corroborating the findings of Avellaneda and Gomes (2015) about IPTU, indicating that the greater the income generation capacity, the better the performance indicators.

The gender of elected politicians showed a positive relationship with the indicators, with no statistically significant negative relationship. The literature is scant on affirming that men in public management and monitoring are more efficient, but it would be biased if we analyzed the proportion of men and women in elected office, since on average 88% of mayors and 86% of city councils are occupied by men.

As for the media variables, it was found that municipalities with a greater presence of radio stations and TV stations generally have better Fiscal Autonomy and Firjan indices. To achieve political objectives, the media is cited in the literature as an electoral tool and a component of mass influence (Pieranti & Martins, 2007; Pieranti, 2008; Cohen, Tsifti & Sheaffer, 2008; Ciarelli & Avila, 2009). The perceived power of the mass media is readily apparent in the political environment, and visibility has become a condition for the prospect of good electoral results (Cohen, 2008). What is suggested is that the transparency of the actions and facts of the administration can undermine votes when analyzing the administration of the mayor. As far as the legislature is concerned, with greater political tension exposed on radio and TV, councilors would be more inclined to act in the administration to protect their electoral interests (Demir & Reddick, 2012).

Thus, in a polarised or multipolarised political environment, the exposure of management performance can generate consequences not so desired by political representatives, avoiding disjointed or technically unsound decisions; thus, wear and tear in the media is avoided by undermining votes or perpetuation in power, which can contribute to better fiscal condition indicators, in line with the findings of this research.

In addition to the media and the profile of mayors and councilors, other factors certainly influence the fiscal performance of municipalities. The high level of electoral competition can encourage mayors to demonstrate their best performance to society as a means of outdoing their opponents (Baldissera et al., 2020; Rocha et al., 2018). According to Silva (2013), electoral competition is the search for votes by candidates or parties.

In administrative contexts other than the one adopted in Brazil, such as the sample analyzed by Wei (2020) in the USA, administrative structures in which there is a manager-council figure are generally more efficient from a fiscal point of view,

indicating that political interests probably have a negative influence on the results of local administrations.

In Brazil, we have another bias: multi-party politics, which can often lead to conflicts of interest. The results found that political competition for the position of mayor was negatively correlated with overall IFGF, personnel, and investment, indicating that increased competition does not generate better indicators in general. For the position of councilor, it was negative for general IFGF ($\beta=-0.004$; $\alpha=1\%$), personnel ($\beta=-0.009$; $\alpha=1\%$), liquidity ($\beta=-0.005$; $\alpha=1\%$) and investment ($\beta=-0.009$; $\alpha=1\%$). However, the result of competition about the IAF was positive and significant, with a coefficient of 0.003 at 95% confidence for mayors and 0.002 at 99% for councilors, indicating that municipalities with greater competition have a greater capacity to honor their expenses, even if the reflection is not very representative.

Final Considerations

This research aimed to verify the influence of the HC of mayors and councilors on fiscal performance. The results showed that the Human Capital of mayors and councilors influences most of the components of fiscal performance, but the experience of councilors is not beneficial for fiscal management.

The findings could contribute to new lines of study that focus on the sharing of competencies between the executive and the legislature, as well as the latter's accountability for fiscal results, bearing in mind its competencies as an instrument of governance and fiscal management.

Unfortunately, not all HC characteristics are easily estimated, such as experience and skill, especially when the parameter has to be assigned on a larger scale of data. Although there is a diversity of publications on the theory of HC as a premise for competitiveness, performance, and innovation, it was found that there is little research focusing on the knowledge, skill, and experience of local legislative power.

The research was limited to the number of elections in 2012 and 2016. Future research could extend the analysis to a larger number and thus capture the variability of performance results. As a suggestion, we recommend more specific studies by state, for example, to better analyze the profile of councilors and mayors. In addition, it would be important to try to measure the knowledge, skills, and experience of elected representatives in a more specific way, using a smaller sample that would make it possible to use questionnaires, since the TSE data is general and specific. The research has contributed to a new line of analysis of the involvement of councilors in the fiscal results of municipalities.

References

- Askim, J. (2009). The Demand Side of Performance Measurement: Explaining Council's 'Utilization of Performance Information in Policymaking. *International Public Management Journal*, 12(1), 24-47.

- Avellaneda, C. N. (2009). Municipal Performance: Does Mayoral Quality Matter? *Journal of Public Administration Research and Theory*, 19(2), 285-312.
- Avellaneda, C. N., & Gomes, R. C. (2015). Is Small Beautiful? Testing the Direct and Nonlinear Effects of Size on Municipal Performance. *Public Administration Review*, 75(1), 137-49.
- Avellaneda, C. N., & Gomes, R. C. (2017). Mayoral quality and municipal performance in Brazilian local governments. *Organizações & Sociedade*, 24(83), 555-79.
- Baldissera, J. F., Dall'Asta, D., Casagrande, L. F., & Oliveira, Abdinardo M. B. (2020). Influência dos aspectos socioeconômicos, financeiro-orçamentários e políticos-eleitorais na transparência dos governos locais. *Revista de Administração Pública*, 54(2), 340-59.
- Becker, G. S. (1994). *Human capital revisited*. In *Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education* (3a, pp. 15-28). The University of Chicago press.
- Cardoso, A. L. R., & Marengo, A. (2019). Qualidade Burocrática e Performance Estatal: desvendando a caixa preta do município. *Administração Pública e Gestão Social*, 4(11), 1-21.
- Cardoso, G., & Rodrigues, E. (2023). Management Public Accounting: An Analysis of Cost Information in the Light of Public Managers' Perception. *Brazilian Business Review*.
- Cavalcante, P. (2016). Desempenho fiscal e eleições no Brasil: uma análise comparada dos governos municipais. *Revista de Administração Pública*, 50(2), 307-30.
- Ciarelli, G., & Ávila, M. (2009). A influência da mídia e da heurística da disponibilidade na percepção da realidade: um estudo experimental. *Revista de Administração Pública*, 43(3), 541-62.
- Cohen, J., Tsfati, Y., & Sheaffer, T. (2008). The Influence of Presumed Media Influence in Politics: Do Politicians' Perceptions of Media Power Matter?. *Public Opinion Quarterly*, 72(2), 331-44.
- Constituição da República Federativa do Brasil de 1998. (1998). Brasília.

- Dantas, A. F., Jr., Diniz, J. A., & Lima, S. C. (2019). A Influência Do Federalismo Fiscal Sobre o Estresse Fiscal dos Municípios Brasileiros. *Advances in Scientific & Applied Accounting*, 12(3), 62-78.
- Demir, T., & Reddick, C. G. (2012). Understanding Shared Roles in Policy and Administration: An Empirical Study of Council-Manager Relations. *Public Administration Review*, 72(4), 526-35.
- Fávero, L. P., Belfiore, P., Takamatsu, R. T., & Suzart, J. *Métodos quantitativos com stata: procedimentos, rotinas e análise de resultados*. 1. ed. Rio de Janeiro: Elsevier, 2014.
- Freier, R., & Thomasius, S. (2016). Voters prefer more qualified mayors, but does it matter for public finances? Evidence for Germany. *Int Tax Public Finance*, 23, 875-910.
- Gallina, A. S., Risdien, A. E. S., Jr., & Ferreira, J. C. (2019). Teoria dos recursos cognitivos e Capital Humano: A influência do grau de instrução formal na gestão dos municípios da região sul do Brasil. *Revista Catarinense Da Ciência Contábil*, 18, E2828.
- Gao, J. (2015). Performance Measurement and Management in the Public Sector: Some Lessons from Research Evidence. *Public Administration & Development*, 35(2), 86-96.
- Golosov, G. (2010). The effective number of parties: a new approach. *Party Politics*, 6(2), 171-92.
- Gomes, R. C., Alfinito, S., & Albuquerque, P. H. M. (2013). Analyzing local government financial performance: evidence from Brazilian municipalities 2005-2008. *Revista de Administração Contemporânea*, 17(6), 704-19.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency Costs and ownership structure. *Journal of Financial Economics*, 3, 305-60.
- Khanna, P., Jones, C. D., & Boivie, S. (2014). Director Human Capital, Information Processing Demands, and Board Effectiveness. *Journal of Management*, 40(2), 557-85.

- Kissler, L., & Heidemann, F. G. (2006). Governança pública: novo modelo regulatório para as relações entre Estado, mercado e sociedade. *Revista de Administração Pública*, 40(3), 479-99.
- Lui, L. T. P. (2017). Institutions do matter: Exploring the problem of governance in the Hong Kong Special Administrative Region from the perspective of executive-legislative relations. *Asian Education and Development Studies*, 6(1), 72-82.
- Marengo, A., Strohschoen, M. T. B., & Joner, W. (2017). Capacidade estatal, burocracia e tributação nos municípios brasileiros. *Revista de Sociologia e Política*, 25(64), 3-21.
- Medeiros, J., & Demo, G. (2020). Attributes of a Relationship Management Model for the Public Sector (CiRS Exec). *Brazilian Business Review*, 18(1), 101-17.
- Mincer, J. (1958). Investment in human capital and personal income distribution. *Journal of Political Economy*, 66(4), 281-302.
- Nguyen, T., Nguyen, A., Locke, S., Reddy, K., & Murray, L. (2017). Does the human capital of board directors add value to firms? Evidence from an Asian market. *Cogent Economics & Finance*, 5(1), 1385-439.
- Norean, N. R., Veaux, R. D., & Velleman, P. F. (2011). *Estatística aplicada* [recurso eletrônico]. Porto Alegre, Bookman.
- Pieranti, O. P. (2008). A radiodifusão e os coronéis da mídia: uma discussão conceitual acerca do 'coronelismo eletrônico'. *ECO-POS*, 11(1), 128-45.
- Pieranti, O. P., & Martins, P. E. M. (2007). A radiodifusão como um negócio: um olhar sobre a gestação do código brasileiro de telecomunicações. *Revista de Economía Política de las Tecnologías de la Información y Comunicación Online*, 9(1).
- Rocha, F., Orellano, V. I. F., & Bugarin, K. (2018). Eleito em disputa acirrada: características do prefeito e finanças públicas locais. *Economia*, 19(2), 149-63.
- Santiso, C. (2005). *Budget Institutions and Fiscal Responsibility: Parliaments and the Political Economy of the Budget Process*. Washington, DC: World Bank Institute Working Paper No. 37253.
- Schultz, T. W. (1961). Investment in Human Capital. *American Economic Review*, 51(1), 1.

- Silva, G. P. da. (2013). Uma avaliação empírica da competição eleitoral para a Câmara Federal no Brasil. *Opinião Pública*, 19(2), 403-29.
- Silva, J. E., & Sales, M. A, F.. (2018). A Influência do Grau de Instrução do Gestor Público no Desempenho Financeiro dos Municípios. *USP International Conference in Accounting*, 17.
- Suzart, J. A. S., Zuccolotto, R., & Rocha, D. G. R. (2018). Federalismo Fiscal e as Transferências Intergovernamentais: Um Estudo Exploratório Com es Municípios Brasileiros. *Advances in Scientific & Applied Accounting*, 11(1), 127-45.
- Taaibosch, T. A., & Niekerk, V. T. (2017). *Capacity Building Challenges of Municipal Councillors in the Mangaung Metropolitan Municipality in the Free State Province*. Central University of Technology, Free State.
- Travaglia, K. R., & De Sá, L. F. V. N. (2017). Fortalecimento da governança: uma agenda contemporânea para o setor público brasileiro. *Revista Controle - Doutrina e Artigos*, 15(1), 22-53.
- Tribunal de Contas da União [TCU]. (2014). Governança Pública: referencial básico de governança aplicável a órgãos e entidades da administração pública e ações indutoras de melhoria / Tribunal de Contas da União”. Brasília: TCU, Secretaria de Planejamento, Governança e Gestão, 2014.
- Valenti, A., & Horner, S. (2020). The Human Capital of Boards of Directors and Innovation: An Empirical Examination of the Pharmaceutical Industry. *International Journal of Innovation Management*, 24(6).
- Viana, G., & Lima, J. F.. Capital Humano e crescimento econômico. *Interações*, 11(2), 137-48.
- Wei, W. (2020). Municipal Structure Matters: Evidence from Government Fiscal Performance. *Public Administration Review*, 72, 526-35.