

Is a business owner a better mayor?

Helder Marcos Freitas Pereira ¹

Maria Sylvia Macchione Saes ¹

¹ Universidade de São Paulo / Center for Organization Studies (CORS), São Paulo / SP – Brazil

This study analyzes the demographic characteristics of elected mayors in Brazil, emphasizing those who are business owners. The research observes whether mayors with a background as business owners obtain better performance in office, which is evaluated through the municipality's fiscal situation and the IDEB (basic education development index) score. The research was conducted in two parts. The first part used logistic regression and sought to identify the profile of elected mayors. The second part analyzed whether mayors who were business owners obtained a superior performance using the multilevel regression model. The study observed that the majority of mayors had a background as business owners, but this characteristic was not significant to explain electoral success. The results of the second part did not find a correlation between mayors who are business owners and their performance. The only demographic characteristic relevant to explain differences in municipalities' fiscal results was the mayor's age. Therefore, mayors who were business owners did not present results different from those who have other backgrounds, which allows us to assume that this group does not have better skills and judgments. One of the limitations of this study is that the characteristic of being a business owner was obtained by self-declaration.

Keywords: mayor; business owner; fiscal result; municipal management.

A atuação do empresário no executivo municipal apresenta melhores resultados?

O objetivo deste artigo é levantar as características demográficas dos prefeitos eleitos, enfatizando os candidatos que se declaram empresários, e analisar se esse perfil tem melhores resultados quanto ao desempenho, medidos com base na situação fiscal e no Índice de Educação Básica (IDEB) do município. Para tanto, o trabalho foi dividido em duas partes. Na primeira, por meio de regressão logística, buscou-se encontrar o perfil do candidato eleito, centrando-se no fato de ele ser empresário. Na segunda seção do artigo, com o emprego da metodologia de regressão multinível, foi analisado se tal perfil escolhido pelos eleitores era responsável por um desempenho superior. Com relação aos resultados, apesar de os empresários constituírem a maioria entre os candidatos, essa característica não foi significativa para o sucesso eleitoral. Na segunda parte da pesquisa, de modo geral os resultados não encontraram correlação entre o perfil dos eleitos e o desempenho da gestão municipal. Somente a idade do prefeito foi significativa na questão fiscal dos municípios. Dessa forma, os empresários não apresentam resultados diferentes da média, o que permite pressupor que esse grupo não tem melhores habilidades e julgamentos.


Palavras-chave: prefeito; empresário; resultado fiscal; gestão municipal.

DOI: <http://dx.doi.org/10.1590/0034-761220210437x>

Article received on December 21, 2021 and accepted August 05, 2022.

[Translated version] Note: All quotes in English translated by this article's translator.


Editor-in-chief:


Alketa Peci (Fundação Getulio Vargas, Rio de Janeiro / RJ – Brazil) 


Associate editor:

Gabriela Spanghero Lotta (Fundação Getulio Vargas, São Paulo / SP – Brazil) 


Reviewers:

Eduardo José Grin (Fundação Getulio Vargas, São Paulo / SP – Brazil) 

Paulo Ricardo da Costa Reis (Universidade Federal do Rio de Janeiro, Rio de Janeiro / RJ – Brazil) 

Erico Przebylovicz (Fundação Getulio Vargas, São Paulo / SP – Brazil) 

Peer review report: The peer review report is available at this [URL](#).

ISSN: 1982-3134 

¿El emprendedor en el Poder Ejecutivo Municipal tiene mejores resultados?

El objetivo de este artículo es sondear las características demográficas de los alcaldes electos elegidos, con énfasis en los candidatos que se declaran emprendedores, y analizar si este perfil tiene mejores resultados de desempeño, medido por la situación fiscal del municipio y el puntaje del IDEB (Índice de Desarrollo de la Educación Básica). Para ello, el trabajo se dividió en dos partes. En la primera, mediante regresión logística, se buscó encontrar el perfil del candidato elegido. En la segunda parte del artículo se analizó si el perfil elegido por los votantes era responsable de un desempeño superior. La metodología utilizada fue la de regresión multinivel. En cuanto a los resultados, a pesar de que los empresarios fueron mayoría entre los candidatos, esta característica no fue significativa para explicar el éxito electoral. En general, en la segunda parte de la investigación, los resultados no demostraron correlación entre el perfil de los elegidos y el desempeño de la gestión municipal. Solo la edad del alcalde fue significativa para explicar el tema fiscal de los municipios. De esta forma, los emprendedores no presentan resultados diferentes a la media, lo que nos permite concluir que este grupo no tiene mejores habilidades y juicios. Entre las limitaciones de este trabajo, está la cuestión de que la variable “emprendedor” haya sido declarada libremente por los candidatos.

Palabras clave: alcalde; empresario; resultado fiscal; gestión municipal.

ACKNOWLEDGMENTS

This study was carried out with the support of the Coordination for the Improvement of Higher Education Personnel - Brazil (CAPES) – Financing Code 001.

1. INTRODUCTION

The role of elections in democracy is to enable voters to choose among the best ideas and proposals. In the voting process, candidates and parties present their proposals and explain how they will help improve citizens' welfare. Thus, voters analyze and choose among the proposed ideas, and who will put them into practice (Przeworski, Stokes, & Manin, 1999). From this perspective, the selection process would occur only by analyzing the political debate. However, several studies show that demographic, party, and financial characteristics influence the election outcome.

Marsh (2007) argues that the voter, in search for the best candidate, seeks party information to define his/her vote. However, the candidate's attributes have a decisive weight, since, to decide, voters seek past information, what candidates have done before the ballot, and then analyze what they could do. Examining American elections, Mondak and Huckfeldt (2006) showed that the competence and integrity of applicants for public office are relevant factors for a candidate's success, and voters make assessments based on their characteristics.

In Brazil, several papers have discussed the relationship between electoral success and candidate's attributes (Codato, Cervi, & Perissinotto, 2013; Costa & Codato, 2012; Dufloth et al., 2019; Felisbino, Bernabel, & Kerbauy, 2012). Such studies pointed out that characteristics such as age, gender, profession, and educational level are relevant factors for success in the election. In addition to these attributes, the profession declared by candidates is an aspect that deserves attention, since a large part of the applicants declare themselves as politicians and businessmen, that is, functions related to decision-making.

Hence, voters would seek candidates with better ability to make decisions, or exercise judgment. However, looking for information involves costs for search, analysis, and evaluation (Downs, 1957), which limit a full understanding of political information. Therefore, trying to avoid these costs, voters develop shortcuts in their decision-making process, which have a clear and close connection with what is called decision heuristics. Heuristics have been widely discussed, like their potential for bias (Kahneman, 2011; Kahneman et al., 1982) and their positive aspects (Gigerenzer, 2008). They have been applied to the agricultural sector (Gomes et al., 2022) and investment decisions (Shah, Ahmad, & Mahmood, 2018). In the political field, papers by Ottati (1990) and Riggle et al. (1992) investigated the role of heuristics in voters' decision.

From a political perspective, voters seek candidates with a greater ability to judge, to make decisions. The theoretical approach that addresses judgment is the 'judgment-based view' (JBA), in which the entrepreneur combines various heterogeneous resources, under conditions of uncertainty, in order to make a profit. The entrepreneur's judgment concerns decisions made without a formal or rational model to ensure him an optimal decision (Foss & Klein, 2018). Based on the same data set, different entrepreneurs can make different decisions. Judgment can be exercised in different contexts and environments, and not necessarily in a startup. However, in the public sector, the intended outcome would not be profit, but improving some aspect of society (Zerbinati & Souitaris, 2005).

Voters seek, among several attributes, those linked to the candidates' background related to judgment, more precisely capabilities, skills, and knowledge that can lead to positive results. Therefore, this research contributes to the literature on political selection by including in the analysis the fact of a candidate being a businessman, since this is the second profession most declared by applicants. However, the main focus of the article is to check if the heuristics used by voters regarding candidates' profession confirm performance results, that is, if a businessman would achieve better results in public administration. To this end, and through multilevel regression, we analyzed the performance of mayors elected in 2012, in their administration between 2013 and 2016, using the city indicators of budget surplus and Basic Education Development Index (IDEB).

The article is divided as follows: the next section discusses the theoretical framework that supports the research, divided in "Electoral Selection and Voter Heuristics" and "Judgment-Based View". The third section presents the methodology, data, and variables used in the study. The fourth discusses the results, and the fifth section presents the final remarks.

2. THEORETICAL BACKGROUND

2.1 Electoral selection and voter heuristics

In representative democracy, elections choose the best candidates and proposals (Przeworski et al., 1999). The principle of bounded rationality (Simon, 1959) can be applied to the electoral process: voters cannot predict all actions that the elected candidate will take, and if such actions will favor them. Thus, electoral success is conditioned to creating a relationship of trust between the candidate and voters, and reliability is a decisive factor in choosing who to vote for; after all, it is a relationship built on several criteria. However, voters neither have all the necessary information nor are capable to process it for making their decision (Mondak & Huckfeldt, 2006).

In one view of the electoral selection process, candidates and parties elaborate and present their government proposals and explain it to voters, in order to create a link between the proposed actions and improvement of living conditions. Voters make their choice, and winners put the presented ideas into practice (Przeworski et al., 1999). However, given bounded rationality, voters may analyze factors that are external to candidates' proposals, as several surveys have already shown; for example, how demographic characteristics are relevant for voting.

Within this context, the choice of a candidate is not only based on the presented proposals. The complexity of the electoral process and the limited rationality of voters lead them to make decisions considering mental shortcuts known as heuristics (Lago, 2008). Such behaviors are formed from personal characteristics of the candidate and past experiences, so that voters anticipate future performance based on previous results (Kang, 2003). This process takes place quickly and is not perceived by them (Borgida, Federico, & Sullivan, 2009).

In Simon's (1947) view, heuristics are mental habits that aim to simplify the decision-making process. For Kahneman et al. (1982), they are mechanisms that reduce a complex task that involves assessing probability and predicting results into simpler judgments. In general, they are useful, but can lead to errors. Mousavi and Gigerenzer (2017) define them as a decision-making without a complete decision survey and probabilistic calculations. Although heuristics are largely associated with a lower quality strategy, they can be beneficial in some situations.

Given the relevance of information asymmetry for decision-making through heuristics, Downs (1957) argues that in a world with perfect information, no person could influence others, since each individual would know which proposal would benefit him/her the most. Hence, considering that the assumption of full knowledge is not realistic, that knowledge is imperfect, voters would spend scarce resources to overcome such limitations. Among the consequences of information asymmetry are the need for persuasion and the possibility of voters being influenced.

Heuristic models applied to electoral selection consider the influence of stereotypes (Ottati, 1990). Therefore, voters consider such information as a means of avoiding cognitive costs in evaluating all information for decision-making. Examples of stereotypes are party affiliation, race, gender, etc., but not only such attributes. Thus, whatever the heuristics, they are used to simplify judgment. From this perspective, Riggle et al. (1992) showed that voters, when asked to judge

between two candidates, anticipated the difficulty of making the comparison, and chose through candidates' stereotypes.

Part of the literature treats heuristics as a bias. For Kahneman et al. (1982), in general they are useful, but can lead to errors. Trust in heuristics can cause predictable and often serious biases (Kahneman, 2011). Some authors, however, emphasize their positive side: Gigerenzer (2008) argues that heuristics work because they make use of capabilities that are free of charge; moreover, they help solving problems where logic or probability cannot be used. Therefore, they were customized for solving certain problems.

Heuristics can be a mechanism for explaining why some demographic characteristics are significant to the extent that a voter judges that one candidate is more competent for the position. Lau and Redlawsk (2001) identified five types of heuristics that can influence voters' choice. The first two relate to party affiliation and the candidate's ideology. For example, being affiliated to the American Republican party is associated with the idea of advocating lower tax rates; in the case of a Democrat candidate, we expect greater economic intervention. Another heuristic is endorsement; that is, the voter is influenced by the position of other relevant individuals or groups. Election polls are another type of heuristic. Based on them, voters reduce the alternatives, decreasing cognitive effort by eliminating candidates they think don't have a chance. Finally, the last heuristics mentioned concerns the candidate's appearance, which means considering elements beyond political life. Issues related to social and professional life gain relevance, so that information like gender, race, and age activate stereotypes linked to these attributes.

In the Brazilian case, there are several studies that investigated how candidates' demographic characteristics influence election results. Dufloth et al. (2019), when analyzing elections for the municipal government, reached the following conclusions: women were less likely to be elected; in terms of education, having an undergraduate degree did not affect the results; regarding profession, being a politician ensured a higher chance of election, although the results showed high variation, depending on the year. Also, at the municipal executive level, Felisbino et al. (2012) identified that education was not relevant; unlike gender (in the case of men), being a politician, having higher campaign expenses and higher assets increased the probability of success.

Codato et al. (2013) showed that political variables were the most relevant for a candidate's success, such as the political party and coalition. Personal variables, such as being older (age) and female (gender), reduced the chances of success. In elections for federal deputy, Costa and Codato (2012) analyzed the effect of being a professional politician on the likelihood of being elected, and found a significant and positive relationship. They also found that professional politicians are more concentrated in the major parties, and raise more campaign funds.

Regarding income, candidates' occupations, and voters' view on these attributes, Carnes and Lupu (2015, 2016) noted that, in general, the financial status of politicians is considerably higher than that of the voters who elect them. In most democracies, the working class is underrepresented. However, voters did not distinguish between white-collar and blue-collar candidates, contradicting the common view that such a phenomenon is due to voters' preferences.

Still exploring Carnes and Lupu's studies (2015, 2016), as voters rated candidates from different classes as equally capable, the authors assumed that the low representation of the working class is due

to their thinking of not having chance of winning the elections, and therefore they do not enter the ballot. Such thinking would come from reporters and analysts who spread the bias that voters prefer the richest. Other factors that may explain this situation relate to the time and money needed for the campaign, to organized interest groups, to institutional rules, and to party issues.

Within this scenario, there are high costs for measuring the performance of all candidates beforehand, and choose the one with the best performance. This situation leads the voter to use certain heuristics to define his/her vote. Despite several studies, none has advanced to the extent of checking if the significant characteristics for success in the electoral ballot generate better results for public administration; nor has analyzed the high incidence of businessmen running for office. Hence, we developed the following hypothesis for this study:

Mayors who are businessmen show a better performance.

2.2 Judgment-based view

Is entrepreneurship a function of the private sector or can it exist in the public environment? According to Foss and Klein (2012), this function involves a series of actors, even those who are not in traditional markets, such as public managers and leaders of philanthropic organizations. Thus, judgment can be done by various types of leaders, even charismatic ones (Klein, 2008).

According to Foss and Klein (2005), entrepreneurship as judgment is the definition associated with Knight's (1921) line of thought. In his article 'Risk, Uncertainty and Profit', the author distinguishes between risk and uncertainty. While risk can be measured, there is no way to do it in the case of uncertainty. The entrepreneur must be aware of the level of uncertainty he is dealing with, and trust his own judgment. Hence the knowledge about the entrepreneur's powers.

Along the same Knightian line, another key characteristic concerns the difficulty of measuring entrepreneurial activity (of judgment). As a consequence, it becomes difficult to compensate the entrepreneur with a salary. Given these circumstances, Foss et al. (2007) argue that there is no market for judgment, that is, this ability cannot be acquired. Even when decision-making is done by consultants or professionals in other related activities, it is correct to say that the entrepreneur is exercising his judgment, because he has already made the decision to provide a given resource to the company. Thus, in public management, we infer that judgment was used for setting up the government and advisory teams.

The idea of public entrepreneurship relates to searching common interests through the combination and recombination of public resources (Ostrom, 1990). The most common form of public entrepreneurship is that linked to state capitalism, in which the government owns a company, as a major or minor shareholder, or when the government fosters strategic actions in order to develop a whole industry (Klein et al., 2010; Musacchio, Lazzarini, & Aguilera, 2015). In addition to this mode, Klein et al. (2010) add three other types of public entrepreneurship: a change in institutional rules; the management of new public resources - when there is the combination and recombination of existing public resources to achieve a specific goal; and the use of private assets for the public good, where private companies seek public interests.

Regarding the idea of combination and recombination of resources, we can say that the public entrepreneur follows Barzel's (1982, 1997) line of reasoning. In that approach, assets should be seen as a set of attributes, or that resources are heterogeneous. Assets that were not specified and created are in the public domain. Hence, the entrepreneur's role is to create and find out new attributes and extract them from the public domain. However, in the public sector, the entrepreneur does not put his (financial) asset at risk, because his period of action is short (related to the term of office), and his coalition or power group has the option of seeking private goals (Klein et al., 2010). Moreover, this type of entrepreneurship is classified as derivative: it does not have asset ownership, but has the authority to make decisions (Foss & Klein, 2018).

3. METHODOLOGY, DATA AND VARIABLES

We divided this research in two stages. Although many studies have analyzed demographic characteristics as an element of electoral success, none of them focused on the fact that the candidate and/or mayor was a businessman. Thus, in the first stage we analyzed the demographic attributes relevant for voting success; in the second, we investigated if the characteristics that led to electoral success were relevant to achieve a better performance.

To reach the study goals, we carried out a quantitative analysis. To do that, we used multilevel regression models for panel data. In the first part, for the dependent variable 'elected', we used the logistic multilevel model; for the variable '% of votes', the linear multilevel model. In the second part, for the dependent variable 'budget surplus', we applied the logistic multilevel model, while for the variables 'surplus/Gross Domestic Product (GDP) ratio' and 'IDEB', the linear multilevel model. For the linear models, we adopted the restricted maximum likelihood estimation method. We chose these performance variables in order to cover the complexity of public administration and the multiple goals that each government could seek. Alesina (1988) shows that differences in public policies arise when parties act according to their ideology and represent their electoral groups. For example, left-wing governments increase spending on education and other social actions (Gouvêa & Girardi, 2021; Potrafke, 2011). Given these circumstances, we chose variables that measure different spectrums of municipal management. We used Stata software to do econometric analyses, with a 5% significance.

According to Maas and Hox (2004), multilevel models are correlated to issues where the analyzed population is arranged in a hierarchical structure, so that observations are circumscribed to groups and subgroups. With such a model, it is possible to identify and examine individuals' heterogeneities, in addition to the groups and subgroups of which these individuals are part, which makes it feasible to specify random components in each layer of analysis (Fávero & Belfiore, 2017). To determine the use of these models, we analyzed the likelihood ratio test, which compares multilevel models with traditional regression models.

The period of analysis of the determinants for electoral success regards the 2012 municipal election. For the performance of the elected mayors, we examined the period from 2013 to 2016, and used the indicators 'budget surplus' and 'IDEB' (Basic Education Development Index) of the education network under municipal administration. These are shown in Box 1.

BOX 1 **VARIABLES USED**

Variable	Type of Variable	Definition	Source
Elected	Dependent Variable	Value 1 if the candidate was elected; otherwise, 0.	Superior Electoral Court (TSE)
% of votes	Dependent Variable	% of the number of votes. Formula: Number of votes received/Number of electors that voted.	TSE
Businessman	Independent Variable	Value 1 if the candidate declared being a businessman; otherwise, 0.	TSE
Male	Independent Variable	Value 1 if the candidate is male.	TSE
Higher Ed.	Independent Variable	Value 1 if the candidate finished higher education.	TSE
High School	Independent Variable	Value 1 if the candidate finished high school.	TSE
Age	Independent Variable	Candidate's age in the election year.	TSE
LN_Candidate_Assets	Independent Variable	Logarithm of the total assets declared by the candidate.	TSE
Budget Surplus	Dependent Variable	Subtraction of budget expenditure from income. Value 1 if the city had surplus in the period. Adopted this way in order to compare cities of different sizes.	Accounting and Fiscal Information System of the Brazilian Public Sector (SICONFI)
Surplus/GDP ratio	Dependent Variable	Budget balance divided by GDP.	SICONFI
IDEB 4 th grade/ 5 th grade	Dependent Variable	IDEB from 4 th grade/5 th grade. Results by municipal administrative dependency.	National Institute for Educational Studies and Research Anísio Teixeira (INEP)
Cities' GDP per <i>capita</i>	Independent Variable	Cities' GDP per <i>capita</i> .	Brazilian Institute of Geography and Statistics (IBGE)

Continue

Variable	Type of Variable	Definition	Source
LN Population	Independent Variable	Logarithm of the City's Total Population.	IBGE
LN State GDP	Independent Variable	Logarithm of States' GDP.	IBGE
Delayed IDEB (t - 1)	Dependent Variable	IDEB of 4 th grade/5 th grade. Results by municipal administrative dependency, with one period delay.	INEP

Source: Elaborated by the authors.

4. RESULTS

Initially, we discuss briefly the results of the first part of the study, which aimed to identify significant variables for electoral success, and represent the characteristics that voters use as heuristics. These heuristics comprise candidates' most capable profile for the voter. Table 1 shows the results of the regressions.

TABLE 1 REGRESSION – ELECTORAL SUCCESS

	Regression 1	Regression 2	Regression 3	Regression 4	Regression 5	Regression 6
Variables	Elected	Elected	Elected	% of votes	% of votes	% of votes
Businessman	0.0522 (0.0545)	-0.0807 (0.0569)		-0.00227 (0.00484)	-0.0208*** (0.00496)	-0.0208*** (0.00496)
Gender		0.157*** (0.0569)	0.150*** (0.0565)		-0.000913 (0.00485)	
Higher_Ed		0.0268 (0.0467)			-0.0120*** (0.00405)	-0.0119*** (0.00402)
High_School		0.148*** (0.0518)	0.123*** (0.0414)		0.0159*** (0.00451)	0.0159*** (0.00451)

Continue

	Regression 1	Regression 2	Regression 3	Regression 4	Regression 5	Regression 6
Age		-0.0120*** (0.00186)	-0.0119*** (0.00185)		-0.00130*** (0.000161)	-0.00130*** (0.000161)
LN_Candidate_Assets		0.139*** (0.0136)	0.136*** (0.0133)		0.0170*** (0.00114)	0.0169*** (0.00114)
Constant	-0.513*** (0.0395)	-1.826*** (0.180)	-1.774*** (0.175)	0.337*** (0.00897)	0.197*** (0.0174)	0.196*** (0.0171)
Observations	13,141	13,007	13,007	13,141	13,007	13,007
Number of groups	26	26	26	26	26	26

Note: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Source: Elaborated by the authors.

Regression models 1, 2, and 3 have electoral success as the dependent variable (1, if the candidate was elected). The only explanatory variable of model 1 is the fact of being a businessman; model 2 has all the variables that we intended to study in this part of the article; in turn, in regression 3 we only find the significant variables. Models 4, 5 and 6 follow the same reasoning, but the dependent variable is the percentage of votes received by each candidate.

In the models where electoral success is the dependent variable, none of the three regressions showed the independent variable 'businessman' as significant. In turn, in the models where the independent variable was 'percentage of votes', being a businessman was significant and negative for explaining its variance. Therefore, the result of the relationship was not as expected, although through descriptive statistics we observed a high degree of participation of businessmen candidates. Hence, belonging to this group did not contribute to electoral success.

This result indicates that the high number of candidates who declare themselves businessmen in the ballot does not confirm electoral success. Such a decision is more related to the political parties that nominate them than to the voters. This fact can be explained by the false bias that businessmen (or white-collars) have greater chances of success due to their networks, which leads to their nomination and greater access to financial resources.

This variable shows consistent results with one datum indicated by Carnes and Lupu (2015, 2016): non-businessmen may think they are not eligible for election and, consequently, end up not entering the ballot. In addition, there are costs (monetary and non-monetary) necessary to run for election. In this case, workers may have higher opportunity costs for leaving their formal jobs, while interest groups may dominate the party structure, thus nominating candidates aligned with their concerns.

The issue of the businessman candidate may represent a source of power (businessmen would have access to power resources). However, in the models used, there is another variable related to (financial) power: the candidate's assets. In Carnes and Lupu's papers (2015, 2016), profession (white-collar or blue-collar) and financial resources are intrinsically connected. Therefore, the results for the variable 'candidate's assets' are opposite to those found for the variable 'businessman'.

In models 2 and 3, the variable 'candidate's assets' was significant and positive in explaining his/her election. So, the research shows that the candidate's wealth is an important factor for explaining electoral success. The potential justification lies in the fact that voters use the candidate's wealth as a proxy to measure his/her capacity and knowledge. The same relationship was found in models 5 and 6, which explain the percentage of votes. Richer candidates had a higher number of votes. Therefore, the power relationship that we expected to find in the 'businessman' variable was identified in the 'candidate's assets' variable.

The results show that the source of power and capacity goes beyond a professional class. It reaches all professions, since candidates' wealth is the indicator that captures their social and economic class. In addition to the underlying meanings that represent wealth, this may indicate the presence of interest groups running for elections. It may also indicate, given the high costs of the election, that richer candidates would have more resources to structure their campaign. We recall that in the 2012 election there was no public campaign funding.

Regarding gender, being a man was significant and positive for mayors' election. However, we did not find this relationship when analyzing the percentage of votes. Although the results are contradictory, we understand that, as a major election, being a man was a characteristic that voters preferred when deciding their vote. Concerning education, having an undergraduate degree was not significant, being a negative factor for explaining the percentage of votes. Paradoxically, having completed high school was significant and positive for electoral success, corresponding to the same relationship found for the percentage of votes. The variable 'age' was negative and significant for the ballot, as well as a candidate's higher number of votes.

Rich, male, with high school degree and middle aged: this is the profile of the mayors elected in 2012. Hence, on average, voters in 2012 preferred these attributes, which leads us to infer that these are the heuristics that voters used to choose the candidate with more capacity and greater chances of making a good judgment. Does this preferential profile really perform better in city management? To answer this question, we made regressions of these characteristics, with performance as the dependent variable. Table 2 shows the results.

TABLE 2 PERFORMANCE MEASURES × DEMOGRAPHIC CHARACTERISTICS

	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
VARIABLES	Budget Surplus	Budget Surplus	Surplus/GDP ratio	Surplus/GDP ratio	IDEB	IDEB
Businessman	0.0446 (0.0545)		0.347 (0.694)		0.00399 (0.0162)	
Male	-0.0804 (0.0564)		-0.120 (0.724)		0.0355** (0.0169)	0.0326** (0.0166)
Higher_Ed.	0.0235 (0.0524)		1.339** (0.667)	1.099** (0.460)	0.0332** (0.0160)	
High_School	-0.0428 (0.0534)		0.275 (0.680)		0.0119 (0.0163)	
Age at tenure	0.00717*** (0.00183)	0.00765*** (0.00175)	0.0909*** (0.0234)	0.0952*** (0.0225)	-0.000205 (0.000547)	
LN_Candidate Assets_	0.0207 (0.0133)		0.180 (0.170)		0.00774* (0.00395)	
LN_Population	-0.0221 (0.0169)		-0.592*** (0.214)	-0.560*** (0.209)	-0.0107** (0.00509)	
GDP <i>per capita</i>	2.19e-06** (9.97e-07)	2.16e-06** (9.80e-07)	-6.07e-06 (1.19e-05)		1.60e-06*** (2.77e-07)	1.59e-06*** (2.74e-07)
LN_States GDP	0.0972 (0.0988)		1.428 (1.008)		0.172*** (0.0347)	0.172*** (0.0350)
Delayed IDEB (t-1)					0.679*** (0.00849)	0.680*** (0.00848)
Year	0.152*** (0.0155)	0.158*** (0.0144)	2.316*** (0.194)	2.393*** (0.184)	0.0980*** (0.00571)	0.0977*** (0.00572)
Constant	-1.693 (1.151)	-0.632*** (0.155)	-24.37** (11.89)	-6.267** (2.512)	-0.526 (0.400)	-0.518 (0.398)
Observations	18,118	18,118	18,118	18,118	7,923	7,925
Number of groups	26	26	26	26	26	26

Note: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Source: Elaborated by the authors.

The variable 'businessman' was not significant to clarify the performance of mayors in any of the tested models. Hence, there was no empirical answer to justify the presence of a large number of businessmen in the election, since this variable was not important to explain neither the election nor the mayors' fiscal results and students' IDEB in the municipal school system.

The businessman as a judge (decision maker) did not show different results from other professional groups. Thus, there was no evidence that agents who have this position in the private sector stand out from other managers. The habit of making decisions under conditions of uncertainty in the private sphere did not contribute to a better management. The expected interchangeability was not achieved, that is, the capacity and knowledge of the businessman to run his business does not necessarily translate into policies that lead to better fiscal and educational performance.

Therefore, the businessman's judgment was not a resource that led to a competitive advantage. The integration of such a resource as a means to achieve better results is not necessary. We can derive that the explanation for the large participation of businessmen is due to a conception of the candidate himself¹, who thinks he has greater chances of winning. We can add the impossibility of workers to devote themselves to the campaign, and high financial costs.

Being a male was not significant for justifying performance by fiscal indicators. However, it was significant and positive for the performance related to IDEB score. Male mayors did not have a better performance regarding public accounts, and although it is an important variable for educational results, the result was very close to the 5% significance level; therefore, quite sensitive to the introduction or removal of new observations and variables. We also highlight that the states with the worst results were those with the highest number of elected women.

As for educational variables, having an undergraduate degree was not relevant for budget surplus. However, it was significant and positive for the percentage of budget balance in relation to GDP. In its turn, having completed high school had no relevance in any of the dependent variables. Therefore, the educational level of the municipal public manager was not a resource capable of generating competitive advantage. The candidate's education did not provide him with greater skills and knowledge to achieve a better performance.

Regarding mayor's age, there was a correlation between increase in age and better performance in public accounts. For the dependent variable 'educational performance', there was no such association. Therefore, older mayors had, on average, better fiscal results. Hence, findings were contradictory when compared to those found in explaining electoral success, in the first part of the paper, since age had a negative relationship with the election.

The logic of the 'candidate's assets' variable follows the same reasoning of the 'businessman' variable, both seen as a source of power, capacity and knowledge. The better electoral results of the wealthier candidates were not repeated when we analyzed their management performance, both fiscal and educational. Thus, we did not prove candidates' wealth as a proxy for showing skills.

¹ An exponent of this relationship was João Dória, when running for mayor of São Paulo, who used as one of the campaign mottos the sentence "I am a manager, not a politician".

In this case, there is no empirical basis for voters to take such a fact as heuristics for measuring a candidate's success.

Regarding factors external to the candidate, population size was not significant neither for a positive budget balance, nor for success in the educational area. However, it had negative relevance for the percentage of the budget balance in relation to GDP. Population size had low relevance for cities' results. Cities' GDP *per capita* was positive and significant for budget surplus, as well as for IDEB results. Thus, the city richness, before the mayor's administration, was a highly expressive factor for a better performance of the analyzed municipal indicators. In turn, states' GDP, a variable that measures the wealth of the region where cities are located, was significant only in IDEB's variance. For this variable, richer regions had better educational performance.

For the above reasons, the characteristics of the mayors elected in 2012 - rich, male, with complete high school, and middle-aged - were not relevant to explain the municipal performance, measured by budget surplus and IDEB. Considering this profile as heuristics used by voters to choose the candidate with the greatest potential for success, it is a bias that does not lead to better results. Therefore, the explanation for the success of this profile cannot be assigned to the results achieved by this group, since the expected capacities were not empirically proven.

Performance improvement seen in the final years of the mandate cannot be credited to the individual characteristics of the municipal manager, because such a trend was found in the whole set of cities, measured by the variable 'year', which was significant and positive in the variation of the analyzed performances. Thus, performance results are explained by factors external to the mayor's attributes, mainly regarding previous city wealth. Another important factor is the increased performance as a general trend, which cannot be considered an action of the municipal government.

As a way to provide greater reliability and strength to the research, we made a series of regressions with changes in model specifications. The results are shown in Table 3. The main change regards the explanatory variable (businessman), which was replaced by 'professions with judgment history'. Here, in addition to mayors who declared themselves as "businessmen", we included those who called themselves 'traders', 'merchants' and 'company directors'. Furthermore, we excluded all observations in which we could not identify if the mayor had a businessman background, such as those that mentioned 'deputy', 'mayor', and 'councilman' as professions. And we included 'political party' as a control variable. In order to overcome any potential problems caused by time cutoff, in models 16, 17 and 18, we excluded all observations related to the first year (2013). Hence, the results that had little influence on the mayor's performance were removed from the research.

TABLE 3 PERFORMANCE MEASURES × DEMOGRAPHIC CHARACTERISTICS – WITH MODEL SPECIFICATION CHANGE

	Model 13	Model 14	Model 15	Model 16	Model 17	Model 18
Variables	Budget Surplus	Surplus/GDP ratio	IDEB	Budget Surplus	Surplus/GDP ratio	IDEB
Professions with judgment history	-0.275 (0.446)	-4.098 (5.347)	0.0268 (0.134)	-0.381 (0.532)	-5.472 (6.238)	0.00333 (0.175)
Male	-0.0646 (0.0669)	0.264 (0.808)	0.0375* (0.0207)	-0.0611 (0.0795)	0.264 (0.940)	0.0208 (0.0267)
Higher Ed.	-0.0526 (0.0602)	0.548 (0.720)	0.0310 (0.0190)	-0.0667 (0.0716)	0.793 (0.840)	0.0556** (0.0246)
High School	-0.0831 (0.0599)	-0.163 (0.717)	0.0204 (0.0189)	-0.0688 (0.0713)	-0.301 (0.837)	0.0248 (0.0246)
Age at tenure	0.00699*** (0.00223)	0.0907*** (0.0269)	-0.000155 (0.000688)	0.00666** (0.00265)	0.0904*** (0.0313)	-4.18e-05 (0.000891)
LN Candidate_Assets	0.0164 (0.0171)	0.163 (0.207)	0.00833 (0.00526)	0.0147 (0.0204)	0.161 (0.241)	0.00452 (0.00684)
LN_Population	-0.0145 (0.0203)	-0.690*** (0.242)	-0.00930 (0.00635)	-0.0465* (0.0240)	-0.744*** (0.281)	0.00801 (0.00824)
GDP per capita	2.35e-06** (1.15e-06)	-2.50e-06 (1.25e-05)	1.57e-06*** (3.16e-07)	2.69e-06** (1.35e-06)	-4.35e-06 (1.49e-05)	1.17e-06*** (4.31e-07)
LN_States' GDP	0.0813 (0.0962)	1.139 (1.009)	0.170*** (0.0347)	0.127 (0.0928)	1.549 (1.142)	0.125*** (0.0306)
Delayed IDEB (t-1)			0.676*** (0.00973)			0.703*** (0.0122)
Interaction Income x Prof. judgment history	0.0136 (0.0324)	0.243 (0.388)	-0.000879 (0.00975)	0.0405 (0.0386)	0.432 (0.452)	-0.00327 (0.0126)
Interaction Male x Prof. judgment history	0.0595 (0.181)	-1.966 (2.166)	-0.0136 (0.0537)	-0.108 (0.217)	-2.896 (2.545)	0.0554 (0.0707)
Interaction Age x Prof. judgment history	0.00140 (0.00492)	0.0561 (0.0592)	-0.000121 (0.00149)	3.87e-06 (0.00586)	0.0571 (0.0691)	0.000154 (0.00194)

Continue

	Model 13	Model 14	Model 15	Model 16	Model 17	Model 18
Year	0.154*** (0.0172)	2.454*** (0.204)	0.0955*** (0.00643)	0.640*** (0.0283)	6.468*** (0.328)	
Fixed Effect – Political Party	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-1.399 (1.135)	-19.76 (12.04)	-0.514 (0.403)	-3.198*** (1.123)	-37.58*** (13.73)	0.0333 (0.368)
Observations	14,080	14,080	6,170	10,488	10,488	3,069
Number of groups	26	26	26	26	26	26

Notes: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

In model 18, by eliminating one year of analysis, we started to use the two-level hierarchical model.

Source: Elaborated by the authors.

The results presented in Table 4 did not show changes compared to those of Table 3. The variable “professions with judgment history” was not statistically significant for explaining ‘budget surplus’, ‘surplus/GDP ratio’, and IDEB. Thus, even after including a variable that expands the professions with judgment history and eliminating those we could not identify, we did not observe any superior result in municipal management for this analysis group. Regarding the interaction variables, through which we sought to analyze if the judgment of mayors was mediated by other demographic variables, no statistical significance was found either. Thus, mayors’ income, gender, and age, combined with their profession, did not change the results they reached.

In models 16, 17 and 18, through which we sought to overcome any problems caused by the response time of the implemented policies, we found no relevant changes in the results either. Thus, even after considering the need for a time period for policies to attain results, municipal managers with judgment history did not show better results. The interaction variables were also not relevant for performance. The important changes observed related to the male gender being no longer significant for the IDEB score, and the variable ‘higher education’ becoming statistically significant, that is, mayors with higher levels of education achieved better results.

Regarding the theoretical implications of the article, the findings confirm Ottati (1990) and Riggle et al.’s (1992) papers on the influence of heuristics on voters’ decision, as well as other authors who analyzed the influence of demographic factors on electoral success (Carnes & Lupu, 2015, 2016; Codato et al., 2013; Costa & Codato, 2012; Dufloth et al., 2019; Felisbino et al., 2012). The further step of our study was to analyze if such heuristics are good or bad, if they can be considered a cognitive bias, as in Kahneman et al. (1982), or positive, as in Gigerenzer (2008).

The results show that the heuristics used by voters, regarding candidates’ profession, follow a logic that associates them with a bias (Kahneman, 2011; Kahneman et. al, 1982). In searching better candidates, voters choose characteristics that, in practice, have not provided outstanding results. The stereotypes chosen by voters did not lead to competitive advantage in public administration. Thus, this research did not validate Gigerenzer’s (2008) statement that heuristics are positive when logic

cannot be used. However, since they are customized, it takes a period of time to build them; currently, heuristics do not result in a simplification that generates better decisions.

In short, analysis and evaluation costs for choosing a candidate limit voters' full knowledge of political aspects; consequently, as a way to avoid them, voters resort to heuristics (Downs, 1957). Among the several heuristics and stereotypes used by voters, this paper used, in the analysis, the fact that the candidate is a businessman. However, there are two lines of heuristics analysis: one considers it positive (Gigerenzer, 2008), and the other, as a potential bias (Kahneman, 2011).

By proposing to examine if the heuristics employed were positive or negative, this study showed that those mainly linked to the candidate's background as a businessman did not confirm a better performance.

5. FINAL REMARKS

In the electoral process, one of the main objectives of voters is to choose the candidate best prepared to manage the treasury. Przeworski et al. (1999) mention that, during this process, candidates and parties expose their ideas and, through the ballot, voters choose the best projects. For Marsh (2007), voters, for choosing the best ideas, seek party information and applicants' characteristics. Thus, they use a series of information in search of the most appropriate candidate, or, more precisely, the one who seems to have better judgment, more qualifications, and more skills and knowledge. The voter, in the selection process, looks for resources that can lead to better results for the city.

In Brazil, there are many studies that checked the relationship between candidates' demographic characteristics and electoral success. Dufloth et al. (2019) and Felisbino et al. (2012), when analyzing municipal elections, concluded that being female reduced the chance of victory, while being a politician increased that possibility; as for the educational level, having an undergraduate degree was not significant. However, none of these papers has advanced in the analysis of the correlation between this profile, preferred by voters, and cities' superior performance.

The main goal of this study was to make a survey of the profile of elected candidates by adding the professional variable, since a large number of candidates declared to be businessmen. The second goal was to check if this elected profile, emphasizing the fact of being a businessman, showed a better performance. To this end, we used as measures the fiscal status and IDEB (educational variable).

In order to achieve these goals, we divided the paper in two parts. In the first, we described the profile of the elected candidate. The results showed that the preferred candidate profile corresponded to those wealthier, male, who completed high school. In addition, the probability of being elected decreased with increasing age. Hence, we assumed that voters identified this profile as candidates more capable and skilled, since they could use their knowledge to achieve better performance. The variable 'businessman' was not significant for the electoral success.

In the second part of the study, we checked if the profile chosen by voters led to a superior performance. In general, the results found no correlation between these heuristics used by voters and the performance of municipal management. Only the mayor's age was significant in cities' fiscal issue. Therefore, the administration of this candidate's profile did not present results different from the average, which allowed us to assume that this group did not have better skills, capacities, and

judgment. Factors external to the mayor's attributes, and an annual trend of improvement explained the analyzed performances.

The article's main theoretical contribution was to check that the heuristics employed by voters did not translate into superior results by the elected mayors. Voters use heuristics to avoid the costs required by the analysis and evaluation of a candidate (Downs, 1957). Therefore, as there are two lines of analysis of heuristics, one that considers it positive (Gigerenzer, 2008), and another that sees it as a potential bias (Kahneman, 2011), this article showed that the heuristics linked to a candidate's background as a businessman did not lead to a superior performance.

As a limitation, we mention the variable 'businessman' being freely declared by the candidates. It is possible that those who declared another profession were, in practice, businessmen. Another limiting factor refers to the fact that the analysis examined only one electoral cycle (2012 election and 2013-2016 administration). Thus, future studies could analyze if similar results also occurred in other periods.

REFERENCES

- Alesina, A. (1988). Credibility and policy convergence in a two-party system with rational voters. *The American Economic Review*, 78(4), 796-805.
- Barzel, Y. (1982). Measurement cost and the organization of markets. *The Journal of Law and Economics*, 25(1), 27-48. Retrieved from <http://dx.doi.org/10.1086/467005>
- Barzel, Y. (1997). *Economic analysis of property rights*. Cambridge, UK: Cambridge University Press.
- Borgida, E., Federico, C. M., & Sullivan, J. L. (2009). *The political psychology of democratic citizenship*. Oxford, UK: Oxford University Press.
- Carnes, N., & Lupu, N. (2015). Rethinking the comparative perspective on class and representation: Evidence from Latin America. *American Journal of Political Science*, 59(1), 1-18. Retrieved from <https://doi.org/10.1111/ajps.12112>
- Carnes, N., & Lupu, N. (2016). Do voters dislike working-class candidates? Voter biases and the descriptive underrepresentation of the working class. *American Political Science Review*, 110(4), 832-844. Retrieved from <https://doi.org/10.1017/S0003055416000551>
- Codato, A., Cervi, E., & Perissinotto, R. (2013). Quem se elege prefeito no Brasil? Condicionantes do sucesso eleitoral em 2012. *Cadernos Adenauer*, 14(2), 61-84.
- Costa, L. D., & Codato, A. (2012). Competição e profissionalização política: as eleições para deputado federal no Brasil em 2010. In *Anais do 8º Encontro da Associação Brasileira de Ciência Política*, Porto Alegre, RS.
- Downs, A. (1957). *An economic theory of democracy*. New York, NY: Harper.
- Dufloth, S. C., Horta, C. J. G., Silva, M. M., Costa, M. L. M., & Rocha, M. S. (2019). Atributos e chances de sucesso eleitoral de prefeitos no Brasil. *Revista de Administração Pública*, 53(1), 214-234. Retrieved from <https://doi.org/10.1590/0034-761220170241>
- Elinor, O. (1990). *The evolution of institutions for collective action*. Cambridge, UK: Cambridge University Press.
- Fávero, L. P., & Belfiore, P. (2017). *Manual de análise de dados: estatística e modelagem multivariada com Excel®, SPSS® e Stata®*. Rio de Janeiro, RJ: Elsevier Brasil.
- Felisbino, R. A., Bernabel, R. T., & Kerbauy, M. T. M. (2012). Somente um deve vencer: as bases de recrutamento dos candidatos à Prefeitura das capitais brasileiras em 2008. *Revista de Sociologia e Política*, 20(41), 219-234. Retrieved from <https://doi.org/10.1590/S0104-44782012000100013>
- Foss, K., Foss, N. J., Klein, P. G., & Klein, S. K. (2007). The entrepreneurial organization of heterogeneous capital. *Journal of Management studies*, 44(7), 1165-1186. Retrieved from <https://doi.org/10.1111/j.1467-6486.2007.00724.x>
- Foss, N. J., & Klein, P. G. (2005). Entrepreneurship and the economic theory of the firm: any gains from trade? In Z. J. Acs & D. B. Audretsch (Eds.), *Handbook of entrepreneurship research* (pp. 55-80). Boston, MA: Springer.
- Foss, N. J., & Klein, P. G. (2012). *Organizing entrepreneurial judgment: A new approach to the firm*. Cambridge, UK: Cambridge University Press.
- Foss, N. J., & Klein, P. G. (2018). Entrepreneurial Opportunities: Who Needs Them? *Academy of Management Perspectives*, 34(3), 1-27. Retrieved from <https://doi.org/10.5465/amp.2017.0181>
- Foss, N. J., Klein, P. G., & Bjørnskov, C. (2018). The context of entrepreneurial judgment: organizations, markets, and institutions. *Journal of Management Studies*, 56(6), 1197-1213. Retrieved from <https://doi.org/10.1111/joms.12428>
- Gigerenzer, G. (2008). Why heuristics work. *Perspectives on psychological science*, 3(1), 20-29. Retrieved from <https://doi.org/10.1111/j.1745-6916.2008.00058.x>
- Gomes, L. A. V., Saes, M. S. M., Nunes, R., & Vilpoux, O. F. (2022, May). Heuristics and farm heterogeneity: Evidence from small-scale farmers in Brazil. *Journal of Rural Studies*, 92, 328-341. Retrieved from <https://doi.org/10.1016/j.jrurstud.2022.04.010>
- Gouvêa, R., & Girardi, D. (2021, May). Partisanship and local fiscal policy: Evidence from Brazilian cities. *Journal of Development Economics*, 150, 102637. <https://doi.org/10.1016/j.jdeveco.2021.102637>

- Kahneman, D. (2011). *Thinking, fast and slow*. Nova York, NY: Macmillan.
- Kahneman, D., Slovic, S. P., Slovic, P., & Tversky, A. (1982). *Judgment under uncertainty: Heuristics and biases*. Cambridge, UK: Cambridge University Press.
- Kang, M. S. (2003). Democratizing Direct Democracy: Restoring Voter Competence Through Heuristic Cues and Disclosure Plus. *UCLA Law Review*, 50, 1141-1188.
- Klein, P. G. (2008). Opportunity discovery, entrepreneurial action, and economic organization. *Strategic Entrepreneurship Journal*, 2(3), 175-190. Retrieved from <https://doi.org/10.1002/sej.50>
- Klein, P. G., Mahoney, J. T., McGahan, A. M., & Pitelis, C. N. (2010). Toward a theory of public entrepreneurship. *European management review*, 7(1), 1-15. Retrieved from <https://doi.org/10.1057/emr.2010.1>
- Knight, F. H. (1921). Cost of production and price over long and short periods. *Journal of Political Economy*, 29(4), 304-335. Retrieved from <https://doi.org/10.1086/253349>
- Lago, I. (2008). Rational expectations or heuristics? Strategic voting in proportional representation systems. *Party Politics*, 14(1), 31-49. Retrieved from <https://doi.org/10.1177/1354068807083822>
- Lau, R. R., & Redlawsk, D. P. (2001). Advantages and disadvantages of cognitive heuristics in political decision making. *American Journal of Political Science*, 45(4), 951-971. Retrieved from <https://doi.org/10.2307/2669334>
- Maas, C. J., & Hox, J. J. (2004). Robustness issues in multilevel regression analysis. *Statistica Neerlandica*, 58(2), 127-137. Retrieved from <https://doi.org/10.1046/j.0039-0402.2003.00252.x>
- Marsh, M. (2007). Candidates or Parties? Objects of Electoral Choice in Ireland. *Party Politics*, 13(4), 500-527. Retrieved from <https://doi.org/10.1177/1354068807075944>
- Mondak, J. J., & Huckfeldt, R. (2006). The accessibility and utility of candidate character in electoral decision making. *Electoral Studies*, 25(1), 20-34. Retrieved from <https://doi.org/10.1016/j.electstud.2005.02.006>
- Mousavi, S., & Gigerenzer, G. (2017). Heuristics are tools for uncertainty. *Homo Oeconomicus*, 34(4), 361-379. Retrieved from <https://doi.org/10.1007/s41412-017-0058-z>
- Musacchio, A., Lazzarini, S. G., & Aguilera, R. V. (2015). New varieties of state capitalism: Strategic and governance implications. *Academy of Management Perspectives*, 29(1), 115-131. Retrieved from <https://doi.org/10.5465/amp.2013.0094>
- Ottati, V. C. (1990). Determinants of political judgments: The joint influence of normative and heuristic rules of inference. *Political Behavior*, 12(2), 159-179. Retrieved from <https://doi.org/10.1007/BF00992467>
- Potrafke, N. (2011). Does government ideology influence budget composition? Empirical evidence from OECD countries. *Economics of Governance*, 12(2), 101-134. Retrieved from <https://doi.org/10.1007/s10101-010-0092-9>
- Przeworski, A., Stokes, S. C., & Manin, B. (1999). *Democracy, accountability, and representation* (Vol. 2). Cambridge, UK: Cambridge University Press.
- Riggle, E. D., Ottati, V. C., Wyer, R. S., Kuklinski, J., & Schwarz, N. (1992). Bases of political judgments: The role of stereotypic and nonstereotypic information. *Political Behavior*, 14(1), 67-87. Retrieved from <https://doi.org/10.1007/BF00993509>
- Shah, S. Z. A., Ahmad, M., & Mahmood, F. (2018). Heuristic biases in investment decision-making and perceived market efficiency: A survey at the Pakistan stock exchange. *Qualitative Research in Financial Markets*, 10(1), 85-110. Retrieved from <https://doi.org/10.1108/QRFM-04-2017-0033>
- Simon, H. A. (1947). *Administrative Behavior*. New York, NY: Macmillan.
- Simon, H. A. (1959). Theories of decision-making in economics and behavioral science. *The American economic review*, 49(3), 253-283.
- Zerbinati, S., & Souitaris, V. (2005). Entrepreneurship in the public sector: a framework of analysis in European local governments. *Entrepreneurship & regional development*, 17(1), 43-64. Retrieved from <https://doi.org/10.1080/0898562042000310723>

Helder Marcos Freitas Pereira



<https://orcid.org/0000-0002-6725-801>

Ph.D. student in Business Administration at the Faculty of Economics, Administration, Accounting and Actuarial Science at the University of São Paulo (FEA-USP). E-mail: heldermarcosfreitas@gmail.com

Maria Sylvia Macchione Saes



<https://orcid.org/0000-0002-6344-0113>

Ph.D. in Economics from the University of São Paulo (USP); Full Professor at the Faculty of Economics, Administration, Accounting and Actuarial Science at the University of São Paulo (FEA-USP).
E-mail: ssaes@usp.br