Does Money Help Elections? Analysis of the Impact of Campaign Spending and Incumbency in Ecuador

¿El Dinero ayuda a las Elecciones? Análisis del Impacto del Gasto de Campaña y la Incumbencia en Ecuador

Abstract
Restricting policies on electoral spending are intended to equalize the conditions of participation of candidates for a seat in a popular election. However, does the application of these restrictions generate equity in the electoral contest, or the opposite? There is much evidence about the advantage of the candidate who is reelected (incumbent) against his contender (challenger), which questions whether the budget restriction on electoral spending is effective in itself. For this research, we used a multiple linear regression method that measures the effects of the effectiveness of campaign spending in attracting votes from candidates for mayor of Ecuador, resulting in incumbency providing a degree of advantage over challengers, much more than the efficiency of spending, all in a highly restrictive scenario in electoral budgets and political campaign time.

Keywords: Electoral spending, electoral budgets, incumbent, elections, mayors.

Introduction
There is plenty of evidence about the influence of money in attracting votes. Despite it being a preponderant factor, it is not the only reason a candidate wins. There are many factors that can be measurable or subjective, such as incumbency and campaign spending. These variables have become the parameters within which studies seek to learn the impact on attracting votes in an election.

For Rivera (2012), the relationship between money and politics in electoral contexts is of greatest interest among political science studies, with money being an important variable on
electoral performance. At an academic level, this topic is of growing interest (Stratmann, 2005) but the volume of research that seeks to empirically find out the effect of money on elections and party systems has not received the expected attention (Morales & Piñeiro, 2010).

Jacobson (1978), the initiator of this research, proposes that campaign spending has a positive influence on capturing votes in an election, and incumbency is a determining factor of advantage over a challenger (Abramowitz, 1991). His detractors, Green & Krasno (1988) claim that marginal spending favors the contender or opponent much more than the incumbent. Also, in a joint study, Jacobson and Kernell (1983) measure the importance of strategy and the experience of the candidates in the electoral contest.

Research conducted on the election of candidates for the US Congress has confirmed the advantage that incumbents have over challengers, whose only way to compete against incumbents is the experience and funding they have (Holbrook & Weinschenk, 2014). Several studies confirm this premise in state legislative elections (Van Dunk, 1997; Abbe & Herrnson, 2003; Carey, Niemi, & Powell, 2000), governor elections (King, 2001) and municipal councilors (Gierzynski, Klepner & Lewis, 1998); all this within the US electoral system.

In other regions of the world, the interest in the influence of money in electoral wins has led authors such as Palda & Palda (1998) to review the French elections, and arrive at the conclusion that the challenger performs better than the incumbent. Shin et al., (2005) infers that the spending of the challengers captures more votes in an election for congressmen in Korea. Similar results were found in Japan (Cox & Thies, 2000) and Portugal (Veiga & Gonçalves, 2004).

Latin America offers very particular study grounds; the local political bases built on two populist tendencies (left and right) make for comparative diversity where this type of research can be applied. There is extensive literature in Latin America analyzing the financing mechanisms of parties and candidates, as well as the need for the existence of public financing regulations (Del Castillo & Zovatto, 1998). “Because campaign finance has such enormous potential policy and regulatory implications everywhere, academics must begin to evaluate its impact in a comparative perspective” (Samuels, 2001).

In Chile, studies on electoral spending and its impact on electoral performance (Rivera, 2012; Acevedo & Navia, 2015) showed that money is relevant but not decisive to win an election. On the other hand, in countries such as Argentina, Mexico, and Ecuador, studies place public spending as a factor in capturing more votes or having influence (Nazareno, Stokes, & Brusco, 2006; Carrillo, 2006; Borja, 2020).

In this context, Ecuador offers an unexplored political scenario to address the issue of the impact of electoral spending on elections, due to its spending restriction policies that contemplate a minimum budget, in addition to a 45-day time limit to campaign for any seat up for election, and an open party system that does not limit the number of contenders for a popular position.

This research aims to quantitatively evaluate the capture of votes and electoral spending within a restrictive policy of campaign spending in Ecuador for a mayoral election, the inclusion of efficiency as an independent variable understood as the total percentage of spending on the limit of each candidate and the effect of being a titular or incumbent candidate in Ecuador for the 2014 mayoral elections.

The results are expected to show favorable effects for the incumbent and a positive effect on the efficiency of voting spending, showing that the voting budget restriction only benefits certain candidates in the Ecuadorian contest. Therefore, this research will evaluate a policy whose purpose is to create equality of conditions for candidates within an electoral contest, and will offer a way to technically understand the effectiveness of campaign spending for candidates.

Literature Review

The classic discussion on the impact of spending and electoral success was initiated by Jacobson, (1978) in his publication “The effects of Campaign Spending in Congressional Elections,” where he justifies that the impact electoral spending performance has on incumbents is not significant since they have a much higher position than any other candidate over the electoral population. The political production curve is unknown by the candidates, says Alexander (1984); this focuses the efforts to get votes only on the amount of spending that a candidate can invest in his campaign, since they empirically understand that success depends on the investment and not on the returns from it.
Campaign spending continues to be a determining factor in attracting votes—the incumbent and the challenger generate benefits around this variable, but there are other factors that intervene in electoral success since it heavily depends on the financing that a candidate may have, and if a spending limit exists, it would serve to protect the incumbent in an effective contest (Abramowitz, 1991).

Other authors criticize Jacobson's position (1978, 1987), demonstrating that the challenger can match spending performance almost at similar levels than the incumbent since there are other characteristics to consider that benefit them in a competition, such as the quality of the candidate (Love, 2009); therefore, when an incumbent competes with a rival with high popularity levels and chances of winning, he tends to considerably increase his campaign spending in such a way that this variable is statistically significant in electoral performance (Green & Krasno, 1988).

Despite the fact that studies regarding the impact of spending on attracting votes have been carried out in a limited time period (Erikson & Palfrey, 1998), such studies showed that spending has a long-term beneficial effect on the incumbent on a cumulative basis: an incumbent's campaigns appear to see longer-lasting effects, which grants benefits and an advantage in the electoral race (Erikson & Palfrey, 1998). Many studies on electoral spending performance do not determine the causes related to attracting votes, they only conclude its relevance. In France, the return on spending is much higher in challengers but incumbency continues to be an important factor in attracting votes (Palda & Palda, 1998). These authors propose the effect that the spending restriction has on incumbents, stating that if the campaign spending cap had been cut in half in assembly elections, incumbents would have gained a 10% advantage over their closest challenger.

In his research on congressional elections in Korea, Shin et al., (2005) shows that the defendant's spending tends to increase the amount of votes a candidate gets in his favor and the incumbent's spending decreases the rival's vote percentage. This study adds an interesting factor to the analysis: the impact that the region has when the leader of a candidate's party is a native.

In Latin America, Samuels (2001) and Morales & Piñeiro (2010), studied voting behavior in Brazil and Chile respectively. In Brazil, both the incumbent and the challenger benefitted from campaign spending, despite the differences in conditions (Morales Quiroga & Reveco Cabello, 2018), and electoral limits here encourage competition between candidates. However, in Chile, a democratic system with control of electoral spending already benefiting the incumbent, he sees a significant advantage in attracting votes.

In Ecuador, a restrictive policy on electoral spending should improve the participation of the other candidates and the incumbent, as it equals their campaign expenses (Macas-Acosta et al. 2022). This will be demonstrated in the model made to determine if incumbency is an advantage point in elections, and whether the return on spending favors the incumbent or not.

Definitely, the discussion on the effectiveness of electoral spending has several standpoints, the only one in its favor is that spending is still a highly relevant factor in attracting votes, but there are also decisive factors that complement spending and make a candidate's campaign in any election much more effective.

The questions to answer in this investigation are the following: Does the incumbent have an advantage over the new mayoral candidates? How much does investment influence the amount of votes a candidate gets under a restrictive electoral spending policy? Does spending performance influence how many votes the candidates get? Does a policy that limits electoral spending improve the conditions for candidates in an election?

Ecuadorian political context for the 2014 elections

Ecuador has been following a neoliberal model of development since the late eighties (Ochoa-Rico et al., 2022), set off during president Sixto Duran Ballen's period (1992 - 1996). Many authors agree that this is the moment neoliberalism was consolidated in the country, through fiscal adjustment "stabilization" policies, deregulation of fuel prices, increases in public service and oil product prices (Minteguiaga, 2012). Vice President Alberto Dahik resigned from his position and fled the country after being accused of misuse of reserved funds. In spite of the crisis, President Durán Ballén completed his term, which would become the last time an Ecuadorian president completed his term until 2007.
In 1996, populist president Abdalá Bucaram was elected into office. He implemented currency convertibility policies and overturned several subsidies, which confronted the business community and trade unionists. His policies lost him popular and institutional legitimacy, which gave the National Congress an excuse for his removal. He subsequently fled the country, and the president of Congress, Fabián Alarcón, came into power in 1997, after a one-day legal dispute with Vice President Rosalía Arteaga, whose term was the shortest in the history of Ecuadorian democracy.

In 1998, a time of serious political and economic turmoil, Jamil Mahuad was elected president in a democratic election. A year later, Ecuador saw one of the worst economic crises in its history (Sorhegui-Ortega et al., 2021), deepened by measures taken by Mahuad. Around thirty banking institutions closed between 1998 and 1999, and by January 2000, Ecuador dropped its currency in favor of the dollar. The same month, President Mahuad was overturned and Vice President Gustavo Noboa, who served until 2003, took office.

Lucio Gutiérrez, a former military man and coup leader, won a new election in 2003, and was dismissed after two years. Vice President Alfredo Palacios took his place until 2007, when new elections were called. Such an unstable political panorama fostered the emergence of populist presidential candidate, Rafael Correa, along with a new political party called Alianza País, whose leftist speech against neoliberal policies and multilateral organizations won him the first of three consecutive periods, from 2007 to 2017.

The emergence of President Correa and his Alianza País movement (MPAIS) represents a moment of recovery of the spaces of governance, in a process of "constructive destruction", that puts forward important criticism regarding the deinstitutionalization of the State, when the traditional parties' existing structure is weakened and a new ruling party enters the political arena. This new ruling party has been consistently successful in several instances, as it's positioned a president and the National Assembly, and has won successive referendums and popular consultations (Castillo & Granda, 2014).

By 2014, the Ecuadorian political context was marked by a period of stability, led by President Rafael Correa and his widely popular "Citizen's Revolution" project, which ended ten years of political turmoil in which no president finished his four-year term (Machado, 2008; Pachano, 2009; Romero-Subia et al., 2022).

It is important to offer a historical description of the last 25 years of Ecuadorian politics, in order to understand the relevance and importance of the 2014 mayoral elections, where political leaders held three, four and up to five consecutive reelections in their territories. In 2009, this scenario of indefinite re-elections came to an end with the Code of Democracy, which only allows a single re-election for any popularly elected seat; therefore, mayors who had already been in power for several terms had to appoint their successors.

**Electoral system and electoral spending limit**

This research seeks to depict the behavior of electoral spending in a restrictive scenario with a mandatory and multiparty voting system. The sample includes the results of the 2014 elections, number of votes per candidate, electoral spending limit and the total spending declared by each candidate in the 221 cities of Ecuador.

In Ecuador, citizens over 18 and under 65 are required to vote in elections, and citizens over 16 and 65 are encouraged but not required to vote. Unlike other countries, the list of candidates per city ranges from 5 to 10 in small and medium-sized cities, while for the main cities, mayoral candidates can be as many as 19.

In order to run for a democratically elected seat, the candidate must belong to a registered political organization and be over eighteen years old. For president and vice president, the minimum age required to be a candidate is thirty-five years old, and to have been born in the country.

The Democracy Code, passed in 2009, states that dignitaries may be reelected only once, consecutively or not; and can never run for the same position again. This reform ended the careers of candidates who'd served as mayor for 18 years, such is the case of cities such as Guayaquil, Machala and Daule; while the city of Samborondón had reelected the same mayor for 22 years until 2019.

This law became effective for public office candidates two election periods later. Therefore, this regulation did not alter the democratic performance of the 2014 elections, nor did it affect the subject of this study, as incumbent behavior was still unregulated back then. A subsequent study of the 2019 elections will help to verify whether or not incumbency is inherited...
to a candidate or political party, but we will leave that for future research.

The legal norm signed in the 2009 Code of Democracy guarantees the type of electoral propaganda that can be financed by the State, as well as the amounts and limits of campaign spending that a candidate who is running for a democratically elected seat can use during a campaign. This is how the State guarantees the equitable and equal financing of propaganda through written media, radio, television and billboards to all candidates.

Furthermore, this Code sets a campaign period of 45 days before the elections. It also establishes the electoral spending limit that candidates can use, apart from those of propaganda (that is already financed by the State). The limit criteria are the following:

- For presidential tickets, the amount that results from multiplying USD 0.15 by the number of citizens in the national registry.
- For National Assembly, Provincial Assembly and Prefect candidates, a maximum amount is estimated from multiplying USD 0.15 for each person in the registry, according to the respective jurisdiction, and in no case may the total limit be less than USD15,000 (for jurisdictions with fewer than 100,000 registrants).
- For mayoral candidates, the limit is calculated by multiplying the amount of USD 0.20 by the number of citizens registered in the township or metropolitan registry. In the case of cantons with less than 35,000 registered persons, the spending limit may not be less than USD 10,000, while for townships with less than 15,000 registered persons, the limit may not be less than USD 5,000 per candidate.
- For regional, township or parochial councilors, the maximum amount is 60% of the budget assigned to the highest seat of each jurisdiction respectively.

In 2014, a total of 28,180 candidates for prefects, mayors, and township council members were introduced nationwide. For the positions of Prefect and Vice Prefect, there were a total of 116 candidates in 24 provinces; in 221 townships, there were 1,201 mayoral candidates, 2,465 candidates for rural councilors, 5,745 for urban councilors and 18,653 for parish council members.

Research on the effect of spending concludes that incumbency brings benefits. Leaving Jacobson's findings (1978) aside; apart from having a public advantage based on their position, and regardless of how effectively they use their budget compared to their challenger, incumbents will always have an advantage in the electoral race based on their campaign investment, with a permanent effect over time. (Erikson & Palfrey, 1998). In addition, there are favorable conditions for incumbents that do not rely on campaign spending. For instance, an incumbent can campaign constantly by redirecting public spending toward strategic popular sectors to increase their acceptance. Favorable economic performance benefits incumbents in an election (Veiga & Goncalves, 2004).

However, one of the discussions in this study is whether the policy of electoral spending limits equalizes the conditions in the political race. For Abramowitz (1991), a low spending ceiling would simply serve to protect the incumbency of a candidate and promote ineffective competition. Given that this study focuses on evaluating the impact of electoral spending and the incumbency of the 2014 elections, it will only be possible to demonstrate what effect these variables have on each candidate.

**Methodology**

The data collected from the 2014 mayoral elections in Ecuador contains a total of 1,201 candidates, the budgets spent on the campaign and the final vote count obtained by each candidate. Two independent variables are defined in two econometric multiple regression models. For each equation the dependent variable is the percentage of votes that each mayoral candidate received in their canton (Hernández-Rojas et al., 2021; Jimber del Río et al., 2020). The variables described are the following:

- % Voto. - Dependent variable obtained from the number of votes each candidate received divided by the total number of votes registered in that city.
- EFI. - Independent variable obtained by dividing the expenditure of a candidate for the spending limit of the city of its corresponding jurisdiction.
- INCUMB. - Proxy variable used to learn the effect of incumbency where 1 = incumbent and 0 = challenger

As explained, we used a multiple linear regression model to estimate the effects of each variable on the percentage of votes obtained; two
statistical models are proposed to compare the results.

The first model (Model 1) describes the impact of spending efficiency for each candidate, as can be seen in formula 1. This model calculates the interrelation that the efficiency percentage of electoral spending has on the percentage of votes. It shows the impact of efficiency in electoral spending in capturing votes; that is, any candidate who spends 100% of his budget will be much more efficient than one who does not manage to spend his entire budget.

\[
Y_1(\%\text{ vote}) = \beta_0 + \beta_1 X_1(\text{EFI}) + e_1
\]  

(1)

For the second model, the dichotomous variable INCUMB is incorporated to measure the effect of incumbency in these elections. Incumbency is shown to be as important a factor as spending efficiency. Incumbency exerts a direct advantage on the contender, due to the incumbent's state of permanent campaign granted by his position in office. As has already been shown in other studies, the directionality of public spending towards certain sectors benefits acceptance of the candidate in his re-election.

\[
Y_1(\%\text{ vote}) = \beta_0 + \beta_1 X_1(\text{EFI}) + \beta_2 X_2(\text{INCUMB}) + e_1
\]  

(2)

Results and Discussion

The scatter diagram shows the relationship of the data obtained from the 2014 mayoral elections, where, it is observed, the relationship is direct: the greater or more efficient spending, the greater the number of votes obtained. This preliminary result collides with a positive effect of the law restricting electoral spending in Ecuador, since it equates the conditions of all candidates by subjecting the electoral budget to a ceiling for each of their campaigns; therefore, to a certain extent, a restrictive policy equates the conditions of competitors, provided that this limit is respected and controlled. The Y axis represents the candidates' campaign spending Efficiency and the X axis is the percentage of votes obtained per candidate. N = 1,201. Source: Own graph results in R Studio.

To infer the impact of spending on the amount of votes obtained, we ran the previously detailed model, the results of models 1 and 2 are presented in Table 1. It should be clarified that the amount of votes is not determined only by spending, but this model brings us closer to understanding the relationship that exists between the proposed variables. We should also clarify that there are additional factors that favor voting intention, such as partisan sympathy (Angulo, 2015), the candidate's approach to proposals and policies (Downs, 1957), charisma or affiliation to a political party. We will not talk about the effect of populism in this research.
Table 1.
Results table

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interceptor</td>
<td>0.1054***</td>
<td>0.0918***</td>
</tr>
<tr>
<td>EFI (Efficiency)</td>
<td>0.268***</td>
<td>0.1651***</td>
</tr>
<tr>
<td>INCUMB (Incumbency)</td>
<td>0.012</td>
<td>-0.0101</td>
</tr>
<tr>
<td>R2</td>
<td>0.2829</td>
<td>0.5769</td>
</tr>
</tbody>
</table>

The results establish that there is strong statistical evidence to reject the hypothesis that the coefficients are equal to zero; therefore, there is a correlation between the variables of both models. The autonomous variable, or intercept, establishes that there is a percentage of votes that does not correspond to the expense or the candidate's incumbency. The results also establish an important factor given by R squared, for Model 1. This value is 0.2829, that is, the model barely explains 28% of votes obtained through spending, but when the Incumbency variable is added, R squared increases to 0.5769, which strengthens the model, explaining 57% of the votes obtained. Regarding the variables, in Model 1, we see that for each percentage change in spending efficiency, a candidate can get 26% of a vote.

Conclusions
This study is the first in the Ecuadorian context to confirm the direct relationship between campaign spending and the amount of votes obtained within a restrictive policy for electoral spending. The results produced by the models clearly indicate the direct relationship between electoral spending and the amount of votes obtained, although not causally: the more a candidate strives to be efficient in his campaign spending, the greater their chance of obtaining more votes.

This first result shows that within the restrictive spending policy, there is an equitable competitiveness margin among the contenders in the electoral race, at least in the Ecuadorian system. Spending restrictions, limited campaign time and government financing for parties are factors that even out the conditions for all the candidates, provided that the established deadlines and limits are met.

The second model, on the contrary, shows that when there is an incumbent, his chances of winning increase significantly against his direct challenger. In other words, the incumbent candidate who opts for reelection gets an advantage over his opponents. This advantage, according to several authors, responds to the investment made by the incumbents during their time in office, which has a direct impact on the voter; while other authors infer that it is the candidate's experience which translates in voting intention in his favor.

The current reelection policies promote a more active political intervention, since, when indefinite reelection was eliminated, the candidates or political parties lost the advantages of incumbency to continue in power, as occurred in the last 20 years in Ecuador. The two-term reelection law prompted some mayors to pass on incumbency to their children by positioning them as candidates for their seat. The effect of this phenomenon has not yet been measured and will be the subject of new research.

To conclude, an electoral scenario with a policy of electoral spending ends up increasing the inequalities between an incumbent candidate and a challenger, due to the advantage of the former on the political scene. The limit of electoral spending coerces the advantage that campaign investment generates for a challenging candidate, spending is so important in attracting votes that the limitations harm free competition.

Debating whether or not a spending control policy is beneficial is not conclusive in this study, since this control allows us to observe the behavior of certain political parties and candidates in an electoral contest. If a candidate is not efficient in his campaign spending, it should be cause to limit his participation in future elections as a measure refining the electoral
register, where control entities reward or punish participation based on its efficiency.

**Bibliographic references**


