Political information in social media and electoral participation: evidence from Chile using Full Matching

Información política en plataformas de redes sociales y participación electoral: evidencia desde Chile utilizando Full Matching

Informação política em plataformas de mídia social e participação eleitoral: evidências do Chile usando Full Matching

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ABSTRACT | A large number of researches study the relationship between the use of social media platforms and different forms of political participation. However, the evidence regarding the role of social media on the electoral turnout is limited, especially in the Latin America context. This research aims to analyze the relationship between the consumption of political information on Facebook and Twitter, and vote turnout in national elections in Chile. To do so, data from public opinion surveys that measure participation in the 2013 and 2017 elections (n=7,736) are used. The Full Matching (FM) technique is applied to reduce the (self)selection bias present in observational studies and to make valid comparisons. The results are compared before and after the application of FM, finding relevant differences. The results with FM indicate that exposure to political information on social media platforms is not associated with electoral participation in the period studied. This opens a discussion regarding the various types of use of platforms and electoral participation.

KEYWORDS: social media; political information; electoral participation; vote; Chile; Full Matching; Facebook; Twitter.

RESUMEN | *Un gran número de investigaciones estudia la relación entre el uso de las plataformas de redes sociales y distintas formas de participación política. Sin embargo, la evidencia respecto del rol en la participación electoral es reducida, sobre todo para el contexto de América Latina. Esta investigación busca analizar la relación entre el consumo de información política en Facebook y Twitter y la concurrencia a votar en las elecciones en Chile. Para ello, se utilizan datos provenientes de encuestas de opinión pública que miden la participación en los comicios de 2013 y de 2017 (n=7736). Se aplica la técnica de Full Matching (FM) para reducir el sesgo de (auto)selección presente en estudios observacionales y realizar comparaciones válidas. Se contrastan las estimaciones antes y después de la aplicación del FM, encontrando diferencias relevantes. Los resultados con FM señalan que el consumo de información política en las plataformas de redes sociales no se asocia con la participación electoral en el periodo de estudio. Esto abre una discusión respecto de los diversos tipos de uso de las plataformas y la participación electoral.*

PALABRAS CLAVE: *plataformas de redes sociales; información política; participación electoral; voto; Chile; Full Matching; Facebook; Twitter.*

RESUMO | Um grande número de investigações estudar a relação entre o uso de plataformas de redes sociais e diferentes formas de participação política. No entanto, as evidências sobre o papel da participação eleitoral são limitadas, especialmente para o contexto da América Latina. Esta pesquisa tem como objetivo analisar a relação entre o consumo de informações políticas no Facebook e no Twitter e o comparecimento às urnas nas eleições nacionais no Chile. Para isso, são utilizados dados de pesquisas de opinião pública que medem a participação nas eleições de 2013 e 2017 (n=7.736). A técnica Full Matching (FM) é aplicada para reduzir o viés de (auto) seleção presente em estudos observacionais e fazer comparações válidas. Os resultados são comparados antes e após a aplicação do FM, encontrando diferenças relevantes. Os resultados com FM indicam que a exposição a informações políticas em plataformas de mídia social não está associada à participação eleitoral no período estudado. Isso abre uma discussão sobre os vários tipos de uso de plataformas e participação eleitoral.

PALAVRAS-CHAVE: plataformas de mídia social; informações políticas; participação eleitoral; voto; Chile; Full Matching; Facebook; Twitter.

INTRODUCTION

Academic interest in understanding the role played by social media platforms in the political process has been increasing over the last decade. The social nature involved in the creation and dissemination of content circulating in these digital spaces (McCay-Peet & Quan-Haase, 2016) creates an environment with high information production (Van Aelst et al., 2017), expanding the variety of content available to the citizenry and challenging the political sphere in various ways (Persily & Tucker, 2020).

In this context, studying the relationship between the use of platforms and political participation has been a key focus. In Latin America, evidence suggests that the informative use of the Internet and social networks is a critical factor to understand extra-institutional political participation, which includes actions such as signing petitions or participating in demonstrations, among others (e.g. Hopke et al., 2016; Salzman, 2015; Valenzuela et al., 2016). However, little attention has been given to the relationship that social network platforms have with electoral participation and the research that addresses this aspect focuses mainly on developed countries.

Chile is an interesting case study. On the one hand, electoral participation has declined steadily over the last two decades (Bargsted et al., 2019) within the context of voluntary voting, while access to the Internet and the use of platforms has increased, positioning the country as one of the leaders in Latin America and the Caribbean in terms of connectivity. Moreover, the literature has shown that platforms play a role in citizen participation in protests (Scherman et al., 2015; Valenzuela et al., 2018), indicating a close relationship between these digital tools and the country's political process.

This research aims to analyze the role of the use of information platforms on electoral participation in Chile. We specifically study whether consuming information about political issues on Facebook and Twitter is linked to electoral participation in the national elections of 2013 and 2017.

Informational use of social media platforms and political participation

Research that studies the relationship between social network use and political participation at an individual level indicates that the use of information on public affairs (viewing news, finding political information, or discussing community issues in networks) has a positive effect on citizen participation (e.g., working on campaigns, signing petitions, attending protests, or participating in civic activities). This is confirmed by different meta-analyses on social networks (Boulianne, 2015; Skoric et al., 2016) and digital media (Boulianne & Theocharis, 2020; Chae et al., 2019).

This allows placing social network platforms as another media that fosters citizen engagement by obtaining information (Saldaña et al., 2015), just like television,

newspapers, or radio. However, the key difference of digital networks with traditional media is the former's sociability in the communicative process (McCayPeet & Quan-Haase, 2016). In this regard, Bruns (2015) argues that the structural and technological characteristics of social networks differentiate them in three aspects: they operate in a network, generating content that goes from many to many people, while traditional media generate content that goes from one-to-many people; they are more horizontal than elitist, and are free of editorials and censorship.

The social nature of these platforms allows individuals, communities and organizations to create their own political content (Shirky, 2011), generating an environment of high informational choice for those who use such media (Van Aelst et al., 2017). This increases the likelihood of people obtaining content on public issues through the relationships they establish with their contacts, favoring participation in political activities (Valenzuela et al., 2018). Evidence points out that people who use social networks have a more varied news diet than those who do not use them (Fletcher & Nielsen, 2018), or those who browse websites other than those of the platforms (Scharkow et al., 2020).

In this scenario, it becomes necessary to differentiate between active information consumption, where users consciously decide to follow the topics they wish to consume, from incidental, where information is obtained without necessarily exposing oneself to it. As in the case of active consumption, the possibility of incidental information is greater to the extent that the network of contacts is more heterogeneous (Ahmadi & Wohn, 2018), expanding the information consumption diet that politically mobilizes the citizenry (Lee & Xenos, 2020).

Evidence on electoral participation

The literature regarding the role of mass media on electoral participation is robust (e.g. Corrigall-Brown & Wilkes, 2014; Gerber et al., 2009; Ksiazek et al., 2019; Sørensen, 2019; Yeandle, 2021). This contrasts with little evidence on the relationship between informational use of social media platforms and electoral participation.

On the one hand, studies with field experiments within Facebook conducted in the United States have found that information about elections does not lead to greater participation (Zhuravskaya et al., 2020, 419-420). Although these researches generate robust results, they only analyze people who connect to the aforementioned platform, without addressing the differences that can be generated with those who do not use the networks. Likewise, their results are only based on a single platform, and are not generalizable to contexts other than North America.

Other research with longitudinal designs seeks to relate the use of platforms with electoral activities, but do not directly measure voting. In a Swedish study,

Holt and colleagues (2013) find that political use of platforms increases political participation in offline activities, within which attempting to convince someone to vote for a specific candidate or party is included. In the Danish context, Ohme and collaborators (2018) ask whether exposure to social media platforms affects the "vote choice certainty" (p. 3251). The authors find that the effect is larger, albeit indirect, for first-time voters, while for those with electoral experience no effect is found.

On the other hand, observational studies that find positive associations do not offer conclusive results because they do not propose valid comparisons, mainly due to selection bias. Gil de Zúñiga and colleagues (2012) incorporate participation in the 2008 elections in the United States into a cumulative indicator. The authors find that as the number of people with whom public issues were discussed through the digital sphere increases, offline political participation increases. Meanwhile, Xenos and his collaborators (2014) analyze data from the United States, United Kingdom, and Australia, and find that the more time spent using social network platforms, the greater the participation in offline activities, including trying to convince someone to vote for a specific candidate or party. In a study conducted in Chile, Navia and Ulriksen (2017) provide weak methodological evidence that the use of platforms is positively related to the predisposition to vote in the next elections, while they find no association with having participated in the last elections.

In summary, although the literature on the informative role of social networks indicates that there is a positive relationship with political participation in general, the findings regarding electoral participation do not allow us to generate a clear hypothesis in this regard. This is in line with Boulianne (2015), who points out that the various studies that address the association between social networks and participation in electoral campaigns show a weak relationship, considering activities such as voting.

Relationship between social networks and political participation in Chile

Chile has experienced a strong digitalization during the last decade. As of March 2011, the Undersecretary of Telecommunications reported that there were 1.86 and 5.43 million fixed and mobile Internet connections, respectively. In contrast, as of March 2021, 3.93 and 21.33 million fixed and mobile connections were reported. In other words, while fixed connections grew twice during the last decade, mobile connections grew almost four times, placing Chile among the most connected countries in the region (https://data.worldbank.org/).

According to data from the 2018 *Digital News Report*, Facebook is the most used platform, with 82% of respondents stating that they use it, followed by Instagram (40%), while Twitter is the most widespread microblogging system with 27% usage (https://www.digitalnewsreport.org/2018/). This same report shows that the use of Facebook to visualize news reaches 68%, Twitter, 18%, and Instagram only 12%.

Likewise, this information consumption would not only occur consciously, but also incidentally (Serrano Puche et al., 2018). All these practices have intensified during the last few years (https://www.digitalnewsreport.org/2022).

The literature has shown that social networking platforms are embedded within the dynamics of political activism in Chile. Thus, the existence of digital activism repertoires has been discussed (Millaleo & Velasco, 2013; SolaMorales & Zurbano-Berenguer, 2021), as well as the use of social organizations to inform and call for mobilizations such as, for example, university unions (Cabalin, 2014; Sola-Morales & Rivera-Gallardo, 2015). This has led to consequences in political mobilization, where a positive effect has been found between the use of social networks and attendance at protests in general (Valenzuela, 2013; Valenzuela et al., 2012, 2014; Valenzuela et al., 2018), as well as student and environmental convenings, specifically (Scherman et al., 2015).

Regarding electoral campaigns, Cárdenas and colleagues (2017) review the literature that addresses the Chilean case. One of the most relevant elements they note is that the use of platforms by (digital) activists would be divorced from institutional politics, causing a disincentive for actors competing in elections to focus on platforms to conduct electoral campaigns. For example, Bacallao-Pino (2016) analyzes the Facebook accounts of three university student unions during the 2013 presidential elections. The author concludes that a tension is generated around the electoral cycle, as the student organizations do not refer directly to the elections, while users who interact with the accounts produce critical comments about them.

Saldaña and Rosenberg (2020) study incivilities and biases that occurred during the 2017 national election day in Chile in online news comments mentioning political figures. They find that incivilities are higher than those reported by other similar research in other contexts. Although the study is not directly related to electoral participation, it is an example on how citizens express themselves in the online news environment within the digital sphere in an electoral context. Although a relationship has been observed between Twitter posts and electoral results in presidential primaries (Santander et al., 2017), this would seem to respond to another form of digital activism rather than a search for mobilization of new voters. Rather, the literature suggests that there is a decoupling between the networks' content and the elections during the period under study.

Therefore, it is relevant to examine the role played by these platforms in elections in a context of a sustained decline in electoral participation. This article is thus guided by the following research question:

> *P1.* What is the relationship between the informative use of social media platforms and electoral participation in Chile?

METHODOLOGY
Data

The data come from cross-sectional public opinion surveys elaborated by the Centro de Estudios Públicos. We selected those surveys that measure electoral participation in national elections with voluntary voting, specifically in the national elections of 2013 and 2017. We selected No. 74, 77, 78, 81, 82, and 83, collected between 2015 and 2019. Persons who at the time of the last measured presidential election were not old enough to vote were discarded and, after the elimination of cases with non-recoverable information (5.3%), the sample is 7,736 cases.

Analysis strategy

The literature has pointed out that the use of social networks is not randomly distributed within the population (Correa & Valenzuela, 2021; Gómez Contreras & González López, 2022). From an experimental perspective, the lack of randomness in the distribution of treated –using social networks to follow political issues– and untreated –those who do not use social networks for that purpose– status is problematic for identifying the relationship under study. This causes a (self) selection bias (Hernán & Robins, 2020; Stukel et al., 2007) as there are certain factors that make a person more exposed to political content on social network platforms that may affect electoral participation and, therefore, we cannot compare both groups (treated and untreated), as they differ in many characteristics that go beyond treatment. Thus, making estimates without accounting for (self)selection will produce biased results as they are compared to unbalanced samples. This is a common problem in observational studies, so it is necessary to develop a strategy to reduce such bias in order to make valid comparisons and more accurate estimates.

Therefore, we used the Full Matching technique (Rosenbaum, 1991), which matches each treated case with at least one untreated case and vice versa. This procedure generates strata of treated and untreated cases interchangeable with each other from a set of previously defined covariates, optimally balancing the covariate distribution. The matched observations do not overlap and no cases are discarded. To match these cases, the propensity score of receiving the treatment (using social networks to follow political issues) will be estimated using a set of observed variables, generating a balance of these observations and achieving treatment independence with respect to the results (Rosenbaum & Rubin, 1983). A good example of explanation and application of a similar method written in Spanish can be found in Maldonado and colleagues (2016).

The procedure used is divided into three parts. First, the conditional probability score of being assigned to the treatment (propensity score) is estimated by means of a logit regression. Second, a Full Matching strategy is implemented to balance

the distribution of the observed covariates of treated and untreated cases, working with the linear conditional probability of receiving the treatment, from which we evaluate the balance obtained. Third, the average treatment effect on the treated is estimated following Leite's (2017) recommendations.

Selection of propensity score variables

Which factors explain the consumption of political information in social networks? A good way is to approach the literature on the use of social networks, as well as the literature on the consumption of information, news, or public affairs in various media. These variables can be classified into sociodemographic, socioeconomic, and motivational.

We must first consider the age of the individuals. The literature characterizes the use of social networks as a generational phenomenon, in which youth is the main actor (Loader et al., 2014), as they are the ones who use the platforms the most (Bachmann et al., 2010), as well as the ones who mostly consume digital news (Ohlsson et al., 2017). Second, gender is a key factor in this process, as men consume more of this type of content than women (Benesch, 2012). These two variables account for the sociodemographic dimension. Third, studies indicate that it is important to factor in the educational level. On the one hand, Valenzuela (2013) finds that the higher the educational level, the greater the use of social networks. On the other hand, studies on information consumption indicate that there are socioeconomic differences –within which education is considered–, so that better positioned people consume more than worse positioned people (Bergström et al., 2019).

Fourth, there is evidence that people with greater interest in politics tend to consume more information about public affairs (Boulianne, 2011). In turn, information consumption of other media is a factor that can explain news consumption in the digital environment (Ohlsson et al., 2017). In both cases, these are motivational variables. Finally, all these variables are related to electoral participation (Bargsted et al., 2019; Contreras & Navia, 2013; Corvalan & Cox, 2013) which, according to the recommendations of Brookhart and colleagues (2006), is positive for estimations using FM.

Variable measurement

The dependent variable is retrospective participation in national, presidential, and parliamentary elections in which there is automatic registration and voluntary voting. For this purpose, we use people's responses to the following question: "Did you vote in the past YEAR presidential [and parliamentary] election?". For the samples collected between August 2015 and October 2017, the question asks about the 2013 presidential election, while for the October 2018 and May 2019 samples, the question refers to the 2017 election.

The treatment variable is the consumption of political information on social network platforms. To this end, we used the response to the following question: "For each activity that I will name state whether you do it frequently, sometimes, or never: you follow political topics on social networks such as Facebook, Twitter". This variable was recoded in a binary way, because it seeks to analyze the role of use, not its use intensity and, because the answer Frequently concentrates few observations to distinguish it from the category Sometimes (5.8%). Thus, 0 is equivalent to people who never carry out this activity, while 1 is equivalent to those who report having performed it sometimes or frequently.

It is important to note that the study relates retrospective electoral participation to the concurrent use of social network platforms. This is a common practice present in several studies that analyze electoral participation with cross-sectional data (Contreras & Navia, 2013; Corvalán & Cox, 2013; Navia & Ulriksen, 2017) or that relate the use of platforms with participation in protests (Scherman et al., 2015; Valenzuela et al., 2014; Valenzuela et al., 2016).

In the case of the variables that explain the consumption of political information on social networks, we considered the following. First, the age of the respondent, measured in years. Second, a dichotomous variable indicating whether the person is a woman (1) or a man (0). As a variable that processes the socioeconomic level, we used the educational level of the persons measured in years of education. For the variables that account for people's political allegiance, two factors are used: a dichotomous variable that distinguishes people who identify with a position on the left-right axis (1) from those who do not (0) and another dichotomous variable that indicates whether the person identifies with a political party (1) from those who do not (0).

In the case of the variables of consumption of political information in other media, we constructed a cumulative indicator of consumption in television and press, which has the same response categories as the original treatment variable. It is an ordinal variable interpreted as the frequency of consumption of other media to obtain political information with the following categories: null, low, medium, high, very high.

Finally, the survey wave is incorporated as a control variable to control for variations between samples due to the passage of time, including six different surveys. Likewise, the geographic macro-zone in which the respondents live is added to account for any geographic variations that may exist: Metropolitan Region (1) as a reference group, northern, central, central-southern, southern, and southern macro-zones. These last two controls can be understood as fixed effects. The distribution of the variables can be seen in table 3 (pre-matching).

RESULTS

We first estimated using logit models to analyze the relationship under study before balancing the covariates. In this case, a model without controls and another that includes controls are estimated. The results are shown in table 1. It can be noted that in both models a positive association is obtained between the use of social network platforms to follow political issues and electoral participation. With these results, it can be suggested that those people who consume political information on social network platforms have, on average, a higher probability of reporting having participated in the 2013 and 2017 national elections, compared to people who do not use the platforms for that purpose.

However, as discussed above, the problem with these estimates is that they have a (self)selection bias that produces inaccurate results. Therefore, we applied a balancing strategy to generate valid comparisons and more conservative statistical estimates. The first step is to estimate the conditional probability (propensity score) of being (self)assigned to the treatment, i.e., a model that manages to explain whether the person uses (or not) social network platforms to follow political issues. table 2 shows the fit measures of the proposed null model and complete model, reporting satisfactory fits.

Variable	Model 1	Model 2
Uses social networks to follow political issues (ref: does not use)	0.247***	0.207**
	(0.061)	(0.081)
Full Matching	No	No
Controls	No	Yes
Observations	7,736	7,736
AIC	9,802.14	8,470.17
Log-likelihood	-4,899.07	-4,213.08
Pseudo-R2	0.0017	0.1415

Standard errors in parentheses.

* $p<0.05$; ** $p<0.01$; *** $p<0.001$

Note: controls are gender, age, age squared, education, political position, party affiliation, level of information consumption in other media, survey wave, and macro-zone.

**Table 1. Logit regression model on electoral participation (Pre-Matching)**

Source: Own elaboration based on CEP survey.

Adjustment measure	Null model	Complete model
AIC	8013.0	5486.3
Log-likelihood	-4005.5	-2723.2
Pseudo-R2	0.0000	0.3201

Observations= 7,736.

Table 2. Summary of fit measures of the null and complete logit model on consumption of political information on social media platformss

Source: Own elaboration based on CEP survey.
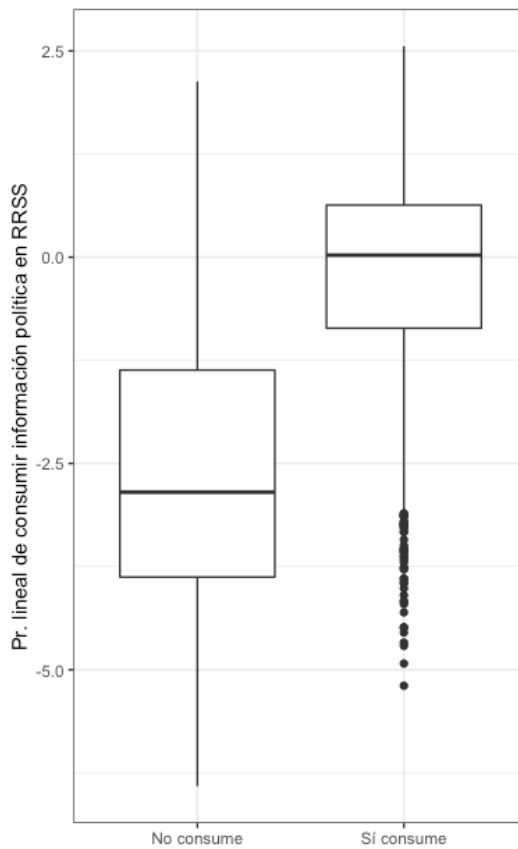
Figure 1. Boxplots of the linear predicted probability distribution according to the use of social network platforms for political information consumption

Fuente: Elaboración propia con base en encuesta CEP.

From the complete model, we estimated the linear predicted probability for each subject and evaluated the possibility of matching between those who consume political information on the platforms and those who do not. Figure 1 shows the distribution of these values for the untreated (non-consumers) and treated (consumers). Observing the figures, it can be seen that there are valid points of comparison between both groups, which allows us to generate strata to balance the covariates.

Considering the above, we proceed to the second step, applying the Full Matching algorithm to match the data and evaluate the balance obtained. Table 3 shows the summary of the covariate balance before and after matching. From the analysis of the standardized mean differences, a satisfactory balance is obtained if a value less than |0.05| is considered as a criterion to evaluate its values. Before matching (pre-matching), only six of the 22 variables obtain this value, while after matching (post-matching), 19 variables have this value or less. Moreover, those variables that exceed this criterion do not exceed |0.10|, indicating a sufficient balance in the covariates, so that the treated and untreated samples are substantially more similar to each other. This allows us to estimate the relationship of interest with a balanced sample.

Variable	Pre-Matching			Post-Matching		
	Uses networks (Treated)	Does not uses networks (Not treated)	Standard mean diff.	Uses networks (Treated)	Does not uses networks (Not treated)	Standard mean diff.
Woman	0.55	0.64	-0.18	0.56	0.57	-0.01
Age	43.60	52.23	-0.56	45.30	45.53	-0.01
Education	13.60	10.16	0.96	13.16	13.00	0.05
With political stance	0.55	0.30	0.49	0.53	0.49	0.08
With party affiliation	0.38	0.19	0.40	0.36	0.33	0.07
Consumption of information from other media:						
Null	0.08	0.57	-1.85	0.09	0.10	-0.02
Low	0.13	0.19	-0.18	0.16	0.18	-0.05
Medium	0.48	0.18	0.60	0.49	0.51	-0.03
High	0.12	0.03	0.29	0.12	0.10	0.06
Very High	0.19	0.03	0.40	0.14	0.12	0.05
Sample:						
2015-August	0.14	0.17	-0.09	0.15	0.15	-0.01
2016- August	0.18	0.16	0.05	0.18	0.16	0.04
2016-December	0.18	0.17	0.01	0.17	0.18	0.00
2017-October	0.14	0.18	-0.10	0.15	0.15	-0.01
2018-October	0.18	0.17	0.03	0.17	0.18	-0.01
2019-May	0.19	0.16	0.09	0.18	0.19	-0.01
Macro-zone:						
Metropolitan Region	0.47	0.35	0.24	0.45	0.45	0.00
North	0.08	0.08	-0.02	0.08	0.08	0.00
Center	0.13	0.15	-0.04	0.14	0.14	0.00
Center South	0.20	0.26	-0.16	0.20	0.21	-0.03
South	0.11	0.15	-0.11	0.12	0.11	0.04
Southern	0.01	0.01	-0.01	0.01	0.01	-0.02

Note: all measures are proportions, except for age and education, which are averages.

Observations= 7736.

Table 3. Covariate balance before and after matching

Source: Own elaboration based on CEP survey.

Variable	Model 3	Model 4
Uses social networks to follow political issues (ref: does not use)	0.055	0.026
	(0.096)	(0.106)
Full Matching	Yes	Yes
Controls	No	Yes
Observations	7,736	7,736
AIC	9,420.59	8,069.39
Log-likelihood	-4,708.30	-4,012.70
Pseudo-R2	0.0001	0.1478

Standard errors in parentheses.

* $p<0,05$; ** $p<0,01$; *** $p<0,001$

Table 4. Logit regression model on electoral participation (Post-Matching)

Source: Own elaboration based on CEP survey.

We then apply the third step, the ATT estimation. What is the relationship between the consumption of political information on social network platforms and electoral participation when the covariates are balanced? Table 4 shows the results of the estimations considering a model without and with controls, and it can be observed that they are not statistically significant at conventional levels (p=0.565 and p=0.806, respectively). When compared with those obtained previously (Table 1), it can be noted that the size of the coefficients is reduced, while the standard errors increase substantially. Thus, the results indicate that there is no association between the use of social network platforms to follow political issues and electoral participation. This differs from the previous findings, so it leads us to another conclusion, pointing out that in the observed period, declaring to have participated in the last national elections is not linked to the use of social networks such as Facebook and Twitter to follow political issues.

DISCUSSION

This research analyzed the relationship between the use of social media platforms for political information and electoral participation. The results show that the use of Facebook and Twitter for this purpose is not related to electoral participation in national elections in Chile. In this regard, it is necessary to consider that we only evaluate a unidirectional information flow, where users appear consuming information and not performing other interactive activities

with other users, limiting the assessment of the platforms' social nature (Bruns, 2015). Thus, explanations oriented to the fact that the informative use of social network platforms has an effect on political participation when it is mediated by interaction with people belonging to nearby networks (conversation/exchange of opinions) are key to understanding this research's results. Therefore, the findings presented here do not allow us to rule out the possibility that other activities, such as giving one's opinion or sharing information on political issues with other users, have consequences on electoral participation.

On the other hand, this research adds to the studies that find a null association of the use of social networks on electoral participation (Zhuravskaya et al., 2020). Thus, the evidence known to date has indicated that the information on political issues available on social network platforms does not affect the electoral behavior of their users, coinciding with the findings of previous meta-analyses (Boulianne, 2015). Some research finds a positive effect of the use of social networks on electoral participation, but through indirect estimates (Holt et al., 2013; Ohme et al., 2018), while this study allows us to assess the direct effect of social networks on electoral participation.

Along with the above, the results indicate that it is important to consider (self)selection bias within observational analyses. Several studies mentioned above use this approach without considering the bias (Navia & Ulriksen, 2017), so that the statistically significant relationships they find between platform use and various types of political participation could be overestimated. The procedure we employed here seeks to reduce (self)selection bias, yielding different conclusions than those that can be drawn from estimations without this approach. Therefore, it is necessary that future research using data from observational sources seek to reduce (self)selection bias using techniques similar to those employed in this paper.

In turn, these results show that although social networks can influence the political cycle by encouraging contestational participation, the same does not necessarily occur with institutional participation. Regarding the Chilean case, other research has shown that having a Facebook or Twitter account (Scherman et al., 2015), the frequency of use of these platforms (Valenzuela et al., 2014), or the exchange of information on public issues with close contacts (Valenzuela et al., 2018) encourage participation in demonstrations. However, as previous studies have pointed out, the relationship generated between activists in the digital space and institutional politics is conflictive (Bacallao-Pino, 2016), showing a high degree of incivility between users and political actors (Saldaña & Rosenberg, 2020). This

implies challenges for actors seeking to compete in elections, as it is necessary to generate content that can engage citizens living in the digital environment to participate in the elections.

CONCLUSIONS, LIMITATIONS, AND FUTURE RESEARCH

The main conclusion of this paper is that being exposed to Facebook and Twtitter platforms' political information flow is not related to electoral participation during the 2013 and 2017 national elections in Chile. Nevertheless, this does not rule out the possibility that other forms of social interaction within the platforms may have an effect on electoral participation.

Among the limitations, we can mention four. First, it only incorporates a unidirectional flow of information, analyzing just a single aspect of the platforms' uses. Second, the results provided have only internal validity, with no possibility of extrapolating them to an entire population. Third, only measurements that refer to Facebook and Twitter are included, leaving out other social network platforms. Fourth, we evaluate the relationship between retrospective voting and the concurrent consumption of political information.

For future research, the first suggestion is to incorporate into the analysis other types of informative and communicative practices within social network platforms. We also recommend using longitudinal data sources that allow for an analysis of the relationship under study. In turn, other research should distinguish the effect between different platforms beyond those addressed in this study. Finally, an analysis with mixed methodologies of the interaction between users of the platforms and the electoral campaigns of the upcoming elections can provide evidence regarding the mechanisms that occur to encourage or discourage different types of political participation.

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