

Use of Twitter as an Effective Communication Tool – Case Study on EU Politicians

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Abstract: Social media are being increasingly used for political campaigning. US presidential elections have shown, that well-targeted messages (both true or false) on social media can significantly influence elections results. Our study analyzes Twitter accounts of 188 high European politicians (such as heads of state, premiers, chief ministers, as well as leading opposition politicians) in the year 2020 and compares the number of their tweets, followers, followings and likes. We have used F and t-test for the comparison of politicians' activity of high and low GDP per capita countries (over and under USD 36,000). We have also used single factor Anova analysis for the regional comparison of politicians' activity on Twitter. We have been able to prove our hypothesis, that rich countries' politicians are more active (more tweets, likes, followers and following) on Twitter in comparison with countries with lower GDP per capita. Also statistically significant differences between regions in the number of followings and likes have been found.

Keywords: Twitter; usage; politicians; EU; GDP

JEL Classification: H70; O35; O33

1. Introduction

The era of the rise of new media changed the perception of exchange of information. In the day to day life people seem to get used to use electronic devices instead of traditional pen and paper. But with that comes the question, if it concerns all parts of men's interaction or sometimes people still tend to come for traditional medias for answer. The part of interest for us now is political aspect of life.

An integral element of political motivation is ideological interest, which is an indicator of the ability to conceptualize ideas, a key to participation in a democracy. Every politician must do everything he can to engage citizens of his country in politics if the political interest is considered important.

The political situation in the world is changing almost every day, the tension between countries and continents can be felt easily. That's why it may be important for those who are in charge to make sure the situation inside their countries is intact. One of the strategies in order to do so is to keep people well informed.

Furthermore, a functioning democratic system is based on the intelligent and well-informed choice of power representatives. It has been shown, that Swedish politicians view social media platforms – and especially Twitter – as one of the best modern democratic tools,

since they broadcast well the voice of people /*vox populi, vox dei*/, improve transparency and promote the freedom of speech.

Research amongst college students have shown as early as 2009 “significant positive relationships between attention to traditional Internet sources and political self-efficacy and situational political involvement. Attention to social media was not significantly related to political self-efficacy or involvement.” (Rebenstorf, 2004) Since then, new media platform such as Twitter has established themselves as a key players in the information spreading environment and become a gateway through which people tend to fulfill their information needs.

Different so called influencers arose on Twitter – from actors, musicians, businessmen, celebrities all the way to the high-ranking politicians. Rather than prepared and sterile interviews in traditional media, modern influencers are more free to express their opinions on social media – mainly Twitter – an American online news and social networking service. Tweets are typically short messages (up to 280 characters) that express an opinion concisely. Using this method, politicians are able to interact with voters and society on rather personal level. Especially Swedish politicians are known to be first to employ this method extensively (Gustafsson, 2012).

Another aspect of social media use in politics, as pointed out by Alcot and Getzkow's study (2017) is the fact, that "the fixed costs of entering the market and producing content are vanishingly small." This low entry barrier allows new and fresh politicians to start their individual private account regardless the rank or political expertise.

On the other hand, according to Lee and Oh's study (2012) personalized tweets do not automatically lead to immediate success.

Only more affiliative individuals felt a greater bond with personalized messages, while the less affiliative ones were less likely to vote for such politician. Further, Lee & Oh (2012) proved that by personalizing tweets politicians benefited only with those voters, who did not strongly identify with a particular group.

Our study tries to answer this question also – this is why we have analyzed Twitter activity only of high-ranked politicians in EU.

2. Academic Literature

In the age of new media, politicians increasingly rely on social networks to communicate with their constituents. To analyze where people and voters tend to get news and information about politics, whether they do so on social media (primarily Twitter) or through more traditional means (newspapers, journals, radio, TV) is vital. How Twitter became popular with politicians is explained in *Politics and Twitter Revolution*. This book argues that the world of politics has changed significantly since Twitter made its debut. The politics of today are more influential than peer influences because people are more involved in politics. (Parmelee & Bichard, 2013)

However, what matters more is whether politicians in different countries are willing to engage in those more modern methods of communication with their voters. It is imperative that parties stimulate media buzz on social networking sites (Twitter) to increase their ability to win more parliament seats. (Safiullah et al., 2017)

The study of the 2011 Swiss national elections found that politicians used Twitter as a complementary tool for campaign distribution. Also, the voters' opinions and judgments were affected only marginally by Twitter's presence.

Broersma and Graham (2012) analyzed the usage of candidate's tweets in tabloids and newspapers in the 2010 elections in the Netherlands and the United Kingdom. They discovered that in the United Kingdom, contentious postings were more popular, but in the Netherlands, facts were more popular. It's also intriguing from the standpoint that material may be recovered and exploited by representatives of old media on new media platforms.

Other research of the parliament elections in the United Kingdom in 2010 found that some parties utilized social media platforms like Twitter to communicate with and directly influence journalists. Journalists used Twitter extensively to learn about campaigns and exchanges between politicians. (Effing et al., 2011).

When comparing two social media platforms, Twitter and Facebook, a Norwegian research found that Twitter had a more hostile climate than its competitor, Facebook. According to the authors, "Use of Social Media does not always result in a more effective political campaign. It is very dependent on how it is used, governed, understood – emphasizing the need for further study."

Some research, but in the other hand, imply that Twitter opinion leadership has a major impact on people's political participation, despite the fact that social media platforms like Twitter do not genuinely facilitate people's political participation. This information demonstrates that political leaders have the ability to influence their potential voters. (Park, 2013)

Furthermore, Gustafsson (2012) has shown that social media sites alone may not always motivate previously passive respondents to engage and start to participate in politics. It argues that there is a spectrum of those who actively share and engage in political debates against others who are more inactive.

Lastly, interesting opinion is presented by Kim, Park, and Rho (Kim et al., 2015) that trust in government actually depends on well managed communication through social media channels.

According to the findings, the level of Twitter's 'promotional' usage is also influenced by the size of the 'Twitter market,' which is linked to the country's overall internet culture. Furthermore, we are happy to analyze the differences in "Twitter markets" among nations with GDP in each EU country. (Redek & Godnov, 2018)

However, according to another study, participation in the twitter politics arena is also dependent on the country's political structure.

Therefore – in our paper we are going to analyze the differences in different "Twitter markets" controlling for GDP in each EU country.

3. Methodology

3.1. Data Collection

We have identified EU countries with high (over USD 36,000) GDP per capita: *Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Ireland, Italia, Luxembourg, Malta, Netherlands, Spain, Sweden, United Kingdom.*

And also countries with low (under USD 36,000) GDP per capita: *Bulgaria, Croatia, Czech Rep, Estonia, Greece, Hungary, Latvia, Lithuania, Poland, Portugal, Romania, Slovakia, Slovenia.*

For differences between regions from geographical point of view, we have taken regions defined by OSN for statistical purpose.

Northern Europe: *Lithuania, Denmark, Finland, Sweden, Estonia, Latvia, Ireland, United Kingdom.*

Southern Europe: *Cyprus, Italy, Malta, Croatia, Greece, Slovenia, Spain, Portugal.*

Western Europe: *Austria, Germany, Belgium, France, Luxembourg, Netherlands.*

Central and Eastern Europe: *Czech Republic, Slovakia, Hungary, Poland, Romania, Bulgaria.*

Lastly, we have chosen a representative sample of politicians from each EU nation. We decided to collect Twitter information on the country's official leader (e.g., the president, the King, the Queen...), the Premier, the Minister of Finance, the Minister of Foreign Affairs, the Minister of Culture, the Minister of Education, the Chief of the Constitutional Court, the Speaker of Parliament, and two major opposition politicians. In total we collected N= 188 accounts.

From this sample of politicians, we have then collected the key characteristics of their Twitter accounts in the year 2020 (e.g. number of followers, likes, number of published tweets, etc.) in an automated way (we used tool *foller.me*). Additionally, we collected the number of retweets for each politician in their last 100 tweets.

We proposed two basic research questions:

- Are there statistically significant differences in activity of the politicians on Twitter for countries with high and low GDP per capita?
- Are there statistically significant differences in activity of the politicians on Twitter for countries taken geographically?

3.2. Statistical Methods

The politics are independent, so we could use a t-test to compare the mean values. We need not to differentiate the politicians (The Head of the Country, Prime Minister...), but to take all the data together, than we have enough data in one category for t-test using. All t-test calculations were made using Excel's data analysis tool (Excel 365 desktop version).

We used a t-test to compare whether politicians have the same value of tweets, followers following and likes, in all cases we have alternative that the value is not the same, so we use variant with two-tails. Everything was calculated at a significance level 0.05. Of course, at first we used F-test for comparing variances.

3.3. Statistical Hypotheses

For exact test our research questions, we had set eight statistical hypotheses corresponding to the research questions – each activity we test using number of tweets, likes, followers and following for both categories using GDP and geographical location.

H₁: Senior politicians of countries with higher GDP have the same number of tweets on Twitter as senior politicians of countries with lower GDP. Against alternative that they have different number of tweets.

H₂: Senior politicians of countries with higher GDP have the same number of followers on Twitter as senior politicians of countries with lower GDP. Against alternative that they have different number of followers.

H₃ & H₄: Similarly, with following and likes.

H₅: Number of tweets of senior politicians on Twitter does not depend on geographical location of the country against alternative that at least one of the geographical locations (north, south, east, west, center) has statistically different number of tweets.

H₆ – H₈: Similarly for the geographical location and for followers, following and likes.

4. Results

4.1. Descriptive Statistics

There were 188 politicians in 28 countries. From countries with higher GDP there were 119 politicians, from countries with lower GDP there were 69 politicians. If we take data geographically, there were 59 politicians from north, 47 politicians from south, 46 from west and 36 from east. It is important that all countries from west are in the group with higher GDP and all countries from east are in the group with lower GDP.

There are two countries with more than 1 million followers of their politicians on Twitter – France (Emmanuel Macron, Marine Le Pen) and United Kingdom (Jeremy Corbyn). The results about mean values for all differentiation and all together are in Table 1.

Table 1. Mean values for groups

	Differentiation by GDP		Differentiation by region				All together
	High GDP	Low GDP	North	South	West	East	
Tweets	8,099	3,084	9,853	6,827	5,225	946	6,259
Followers	212,401	56,818	119,944	175,706	270,198	39,782	155,299
Following	1,083	333	866	630	1,423	157	808
Likes	1,391	633	1,854	1,096	941	139	113

4.2. Distribution by GDP

For hypothesis H₁, H₂, H₃, H₄ mentioned in the chapter Methodology about the same mean of countries with higher and lower GDP per capita we have to start with two sample F-test for variances for to confirm whether there are equal or unequal variances. In Table 2 we can see that in all cases there are unequal variances on significance level 0.05.

Now we can do two sample t-test assuming unequal variances. We have to take two tail variance (the alternative hypothesis is non-equal variant). As we can see in Table 2 we can reject hypothesis about the same mean for states with high and low GDP for all the monitored data – tweets, followers, following and likes (on significance level 0.05). As a result, we can say that politicians in the countries with higher GDP are more active on Twitter.

Table 2. P-values of the F-test and t-test for hypothesis H₁, H₂, H₃ and H₄ – differentiation countries by GDP per capita

	F-test p-value	t-test p-value
Tweets	1.49*10 ⁻¹⁵	0.032
Followers	4.54*10 ⁻³⁵	0.003
Following	7.08*10 ⁻¹⁹	<0.001
Likes	6.54*10 ⁻⁰⁸	0.020

4.3. Distribution by Region

In this part we would like to look, if there are significant differences between European regions. We have taken hypothesis H₅: Number of tweets of senior politicians on Twitter do not depend on geographical location of the country against alternative that at least one of the geographical location (north, south, east, west, center) has statistically different number of tweets. And similar hypothesis H₆, H₇ and H₈ with followers, following and likes, as was mentioned in the chapter Methodology. We have used Simple factor Anova test.

In Table 3, we can see that we can reject the hypothesis (on significance level 0.05) for following and for likes. We can't reject the hypothesis for number of tweets and number of followers.

So we can say that there are significant differences by using Twitter of politicians in different region in how they follow and how many likes they have.

Table 3. P-values of the Single factor Anova test for hypothesis H₅, H₆, H₇ and H₈ – differentiation countries by regions

	Single factor Anova p-value
Tweets	0.159
Followers	0.114
Following	<0.001
Likes	0.011

5. Discussion and Conclusions

Our research has indeed confirmed our hypotheses in the first place. It turns out that politicians in wealthy European countries are indeed statistically significantly more active on the Twitter platform. They post more, they comment more, they respond more. Politicians in richer states are indeed more active on Twitter, in all 4 categories - i.e. they post more Tweets of their own, have more Followings, have more Followers themselves, and last but not least, they give and receive far more Likes. It corresponds with one aspect found in the academic literature – there are abundant studies about Twitter influence on the elections in “rich” countries (e.g. Sweeden, Netherlands), but not so much about the countries with lower GDP.

Looking at it from a regional perspective, the general differences in the number of “Followings” and “Likes” was demonstrated, while the regional variability in the number of Tweets and the number of Followers is inconclusive – has not been proven. We can say that politicians in the Western Europe have more likes and followings than politicians in the Central & Eastern Europe. South European politicians are somewhere in between. It points

out to the one of the limitations of the study – Western Europe have more rich states, while Eastern Europe have states with lower GDP, so this results are probably GDP dependent.

Further - confirmatory - research in this area would be useful to repeat next year, so that the time gap between observations does not exceed 4 years (the usual length of a legislator's mandate).

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