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.

THE DETERMINANTS OF VOTER TURNOUT IN TURKEY: TELEVISION EFFECT AS A SPECIAL CASE

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Abstract

The topic of the determinants of voting turnout has become a common research area in political economy and public choice. We study on Turkey in this paper and particularly try to find how television influences people in terms of participation to the elections. We use panel data econometric method and create a dummy variable that identify the provinces where television transmitter was set up before election. We show that the provinces where residents began to follow television broadcast participated the elections much more compared to provinces without television broadcasting. We also find that income per capita, high school and university graduate ratio and population variables are associated with voter turnout in Turkey.

Keywords: Voter Turnout, Mass Media, Panel data, Television

TÜRKİYE'DE SEÇİMLERE KATILIMIN BELİRLEYİCİLERİ: ÖZEL DURUMDA TELEVİZYON ETKİSİ"

Özet

Seçimlere katılım oranının belirleyicileri konusu politik ekonomi ve kamu tercihinde ortak bir araştırma konusu olmuştur. Bu makalede Türkiye'de seçimlere katılım anlamında televizyonun halkı nasıl etkilediği araştırılmıştır. Araştırma tekniği olarak, 1969-2009 yılları arasında panel veri ekonometrisi ile seçimlerden önce televizyon vericilerinin kurulduğu illeri belirleyen kukla değişken kullanılmıştır. Çalışma sonucunda televizyon yayınını izlemeye başlayan illerde yaşayanların televizyon yayınının olmadığı illere göre daha fazla seçimlere katılım gösterdiği bulunmuştur. Ayrıca kişi başı gelir, lise ve üniversite mezunu oranı ve nüfus değişkenlerinin Türkiye'de seçimlere katılım ile ilişkili olduğu bulunmuştur.

Anahtar Kelimeler: Seçimlere Katılım, Medya, Panel Data Ekonometrisi, Televizyon

1. INTRODUCTION

In Turkey, The Turkish Radio and Television Corporation (TRT) was established on 1964 and started to broadcast with a transmitter located in the capital, Ankara, in 1968. After this milestone, the provinces reached to the television signals on different dates via transmitters. Mainly television became widespread after 80`s. It is clearly shown that most of the citizens have followed the news from television channels (RTUK, 2009). TRT is known with its unbiased news since it is a formal public organization.

Television broadcast and newspaper articles are one of the most important sources for citizens to be informed about politics or politicians. The media`s central role in determining what information about the public justifies the recent increased attention to how to media shapes public knowledge and behaviour (Besley and Burges, 2002).

Theory suggests that news media may affect political outcome through two important channels. First, media spread disseminate information about politics, which may in turn increase political participation (Fedderson 2004). Second media may persuade voters to support particular parties or politics or indirectly shift party support (Graber 2000). In the light of this link, we will endeavour to

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uncover the causality between watching television, in other words getting television signals in regions, and political participation.

It is commonly expressed that in a market with no alternative media sources, turnout is depressed because voters have limited information about politic issues, candidates and parties in elections.

The difference in the voting behaviour among agents comes from the presence of asymmetric information: some agents are informed, some uninformed (Lassen, 2004). The central result of Feddersen and Pesendorfer (1996) is that it can be optimal for uninformed independent voters to abstain from voting even though they may prefer one alternative to the other.

To address the possibility of a spurious relationship, firstly we discuss theory and evidence on the determinants of voter turnout the extent to which there could be correlation with political outcomes of interest (television).

Geys (2006) provides an assessment of the empirical works that look for the answer of why people turn out. He limited his scope that part of the literature which uses aggregate-level data. He takes into account the estimation results from 83 studies where the dependent variable is voter turnout measured at district, municipality, state or country level. The reason for this focus on aggregate-level empirical work is that, at this level, individual idiosyncrasies cancel each other out (Matsusaka and Palda, 1999).

Matsusaka (1995) embeds an information theory in the standard rational voter model. The key link is that a person's expected benefit from casting a decisive vote is increasing in her certainty that she is supporting the best candidate. As a result, the person is more likely to vote as she becomes surer about which way to vote. Confidence in a voting decision is increased by raw information about candidates and knowledge about the model of the world. Thus, as the price of information falls and knowledge rises a person's probability of voting goes up.

Lerner (1958) argues that as a result of industrialization and urbanization, the rural masses realize job opportunities and improved welfare of urban centres which propel them towards the cities. Once they arrive in the cities, they are further motivated to learn how to read and write and they began to follow the news in media. They discover that literacy is a necessity in the urban lifestyle and written culture of the city. If one is literate enough to follow the news in the printed media, it has become more available to have politic ideas and to be informed about the candidates or elections. Literacy and education tend to motivate mass media exposure and increase an interest in the affairs of government.

Section 2 gives a literature review of media and voter turnout, section 3 mentions about political background of Turkey, section 4 explain the specification method of the research and econometric results and section 5 concludes the paper.

2. LITERATURE REVIEW OF MEDIA AND VOTER TURNOUT

Gentzkow (2006) uses variation across markets in the timing of television`s introduction to identify its impact on voter turnout in the United States. He shows that the entry of television in a market coincided with sharp drops in consumption of newspapers and radio and in political knowledge as measured by election surveys. He found a significantly negative effect, accounting for between a quarter and a half of the total decline in turnout since 1950s.

Stromberg (2004) investigates whether radio increased voter turnout. His paper mainly focuses on radios impact on public spending. He argues that governors allocated more funds to areas with a high voter turnout. If radio ownership increases the probability of turnout, then radio can also affect

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the allocation of relief spending via turnout. Voter turnout is likely to be increasing in radio penetration since people who listen to the radio become better informed about politics and therefore also more likely to vote. He finds that an increase in the share of households with radios by one percent increases turnout by 0.12 percent.

Lehoucq and Wall (2004) use several Ordinary Least Squares (OLS) models to evaluate the impact of sociological, institutional and spatial approaches to turnout across the municipalities of Guatemela. They find that more citizens turn out to vote as the size of a municipality decreases.

The rational theory of voting suggests that while the payoff from voting increases, ceteris paribus, voter participation will increase also. In previous researches, it is mentioned that broadcast media may have had some initial expansionary influence on voter participation in initial years of the advent of radio and television, however it was soon exhausted (Campbell, 1962).

In an article based on a telephone survey in Copenhagen voters, it is found that there is a causal effect of being informed on the propensity to vote in an referendum setting. The average treatment effect of being informed on the propensity to vote is 20 percentage points.

Settle and Abrams(1976) study the effects of some explanatory variables besides radio and television ownership on voter turnout in USA. They find that positive and generally significant coefficients on the radio and television variables indicate that more media related information about candidates encourage voting. They also suggest that income is negatively related to voter turnout.

In a recent study which has been built on assumptions about the way media markets affect politics, it is showed that newspapers have a robust positive effect on political participation (Gentzkow et al, 2009). They estimate that one additional newspaper increases both prudential and congressional turnout by approximately 0.3 percent points. An interesting result is that the effect on presidential turnout decreases after the introduction of radio and television. Their result is consistent with a model based on newspaper affect the political process mainly by providing information.

Literature on media effect on has significantly grown in recent years. Dellavigna and Kaplan (2007) has looked for an answer for the question of "does media bias affect voting behaviour?". They analyze the entry of Fox News in cable markets and its impact on voting. After the conservative Fox News Channel was introduced into the market in 1996, it is found that there is a significant effect of the introduction of Fox News on the vote share in Presidential elections between 1996 and 2000. Republicans gained 0.4 to 0.7 percentage points in the towns that broadcast Fox News.

Waldfogel and Obeholzer-Gee (2006) find that Hispanic voter turnout increased by 5 to 10 percentage points, relative to non Hispanic voter turnout, in markets where local Spanish Language television news became available. Their argument is that television carries both local and national news which are relevant for people in elections.

Two recent articles investigate the causal effect education on voter turnout, Dee (2003) and Milligan, Moretti and Oreopoulos (2003) use U.S. state government variation in compulsory schooling laws as instruments to identify the effect of education on voter turnout and other aspects of civic participation. Both studies find that more education causes a higher propensity to vote. Milligan, Moretti and Oreopoulos further find that education also implies greater interest in politics. However, this does not imply a causal effect of more knowledge on the propensity to vote and thus, leaves open the question of exactly how education increases turnout; several reasons are possible, including lowering costs of information processing but also through reducing alienation and increasing compliance with social norms through socialization (Lassen, 2004).

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3. POLITICAL BACKGROUND OF TURKEY

The first multiparty elections in republican Turkey were held in 1946, though there is general agreement that these were not completely free and fair. However, only four years later, the government changed peacefully and democratically through popular election. The outcome of the 1950 election was rather dramatic. The party (Republican People's Party, CHP) that had founded the Republic was voted down, and the opposition (Democrat Party, DP), who were to govern Turkey for the following decade, won the election with a stunning 83.8 percent parliamentary majority. The DP`s ten-year rule was ended by a coup on May 27, 1960. In 1961, electoral politics resumed with a new constitution and election law that introduced proportional representation.

Although the multi-party era of Turkey experienced three democratic breakdowns and military coups in 1960, 1971 and 1980, popular elections for national and local public offices have become institutionalized in Turkey (Carkoglu, Kalaycioglu, 2007).
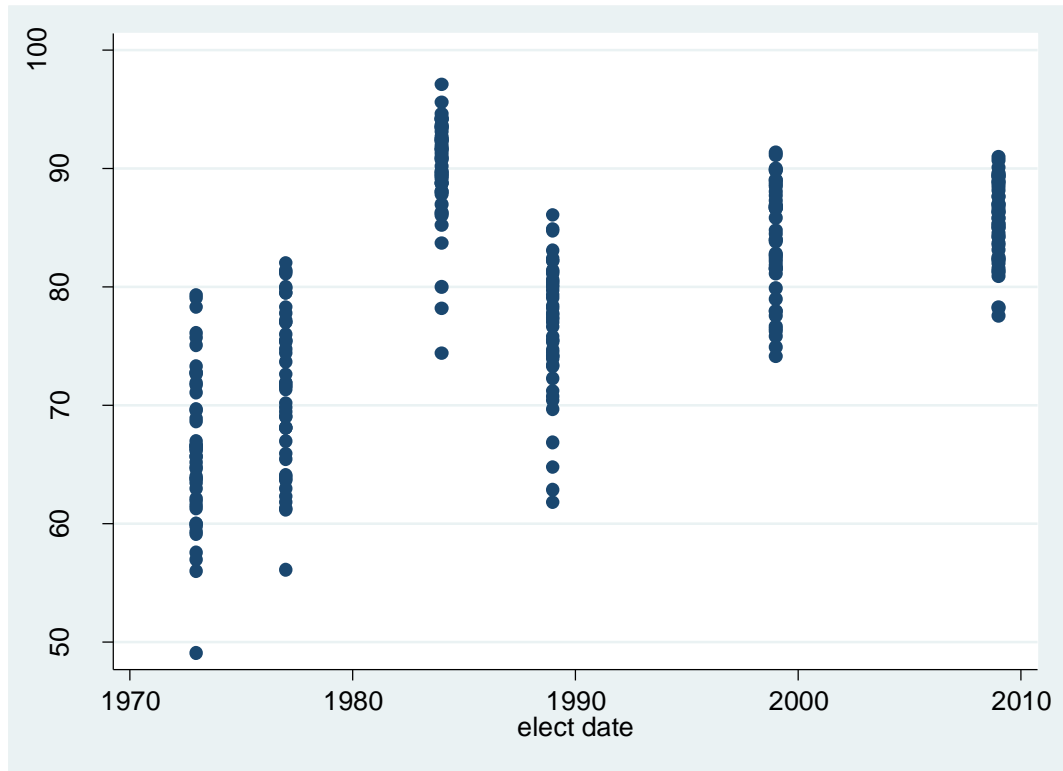
The years 1961 and 1980 came under the influence of the liberal 1961 Constitution and multi-party pluralism, which led to multiplication of political parties in the National Assembly, coalition governments and voluntary associations and vigorous and free press. The load of mass political participation became so important for the political system that it failed to cope with it. The Turkish political system was interrupted again in 1980 by the military forces. A first parliamentary election after the coup has been made in 1983. In comparison to the pre 1980 period of Turkey, Turkish voting participation rates seem to be quite high in the post 1983 period.

The citizens participated with a highly proportion to the elections in the first election after 1980 coup. The citizens uncovered their protest to military intervention by using the democratic rights. The government which was formed by Turgut Ozal adopted liberal politics particularly in economic area. Turkey has become more open to the world economy. As a result of this kind of politics, Turkish economic and politics improved gradually in terms of human rights, gross domestic product and international trade.

Until 2002, Turkey was governed by coalition governments. As a big financial crisis occurred in 2001, people mostly changed their perspective to the previous parties that lead to this bad economic condition and then Justice and Development Party, AKP, won the elections with a high voting ratio (34.4 %) and became unique party in the government.

Taking part in the national and local elections has always attracted a lot of popular support and the voting participation rates in the country have been relatively high.

The graph below demonstrates the voter turnout in elections in our sample between 1970 and 2010.

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Parliamentary systems have two components. First, there are macro-level structural variables that include political parties and the party system, electoral laws and processes, and the rules pertaining to the functioning of formal institutions. Second, there are individuals who make decisions: They choose to vote or not to vote, and if they prefer voting, they then make a choice between available alternatives. Moreover, while some individuals have strong political attachments, others are rather fickle and can readily change their preferences.

4. SPECIFICATION METHOD AND ECONOMETRIC RESULTS

We assume that all agents behave according to information theory and we accept that television provides relevant information to voters whether it determines they will go to the election polls or not.

We use panel data set to reveal dynamics that are difficult to detect with cross-sectional data. We would like to uncover long term effects and development variables on voter turnout.

Independent variables are taken from censuses between 1965 and 2000 while the dependent variable, voter turnout, is taken from election data. Then We match the explanatory variables to the eligible voters in elections. For example if the election was made in 1979 and the census is available in 1980, We use 1980 demographic variables for election which is held one year ago. The resource of both data is Turkish Statistical Institute (TurkStat).

The following specification is used to test whether television increased voter turnout,

$$t_{ct} = \mu_c + \mu_t + \beta_1 TV_{ct} + \beta_2 X_{ct} + \varepsilon_{ct}$$

This equation is estimated using a panel of provinces 1973-2009 including province fixed effects, μ_c, election year fixed effects, μ_t, and a set of exogenous variables, X_{ct}, which we present on

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table 1. The coefficient β_1 measures the effect of television on voter turnout. We are interested in testing this coefficient is positive, $\beta_1 > 0$.

The dependant variable, t_{ct}, is voter turnout in general elections in period 1973 and 2009. Another variable in regression is that the high school and university graduate ratio to the eligible voters in the population of the provinces.

We design a dummy variable, TV, to capture the influence of the broadcast media. Presumably as television became widespread at homes of potential voters, the flow of information about candidates and parties increased, *ceteris paribus*. Dummy variable is generated as follow:

$$TV = \begin{cases} 1 \text{ , if the election was held after television transmitter set in province } i. \\ 0 \text{ , otherwise.} \end{cases}$$

The summary statistics for the variables in analysis are shown in Table 1.

Table 1: Summary Statistics

Variable	Mean	Std. Dev.	Min	Max
Voter turnout	78.93603	9.791336	49.1	97.1
High school, university graduate	17.55199	8.366617	3.614217	40.62264
Television Dummy	.6950355	.4612109	0	1
Population	171523.1	232996.6	13258	1432061
Income per capita	7.582895	6.547701	1.621115	40.78487

Table 2: Econometric Results

	Model 1	Model 2
Variable	Voter Turnout	Voter Turnout (logarithmic)
Constant	65.714*** (62.22)	4.954*** (9.18)
Television Dummy	8.849*** (6.83)	-0.456 (-1.29)
Highschool and University graduate ratio	0.402*** (5.27)	0.099*** (3.55)
Income per capita		0.199*** (4.17)
Population	-0.001*** (-3.32)	-0.299** (-9.57)
Observation	282	141
R^2	0.50	0.54

*** significant at 1 percent, ** significant at 5 percent, t statistics in parenthesis.

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Table 2 reports fixed effect pane data estimation results. Model 1 includes the period of 1973-2009 which we examined 6 election times. The reason why we selected this time period is that there is a variation among provinces on reaching television signals in Turkey. We did not use income per capita variable in model one since it is not publicly available over the period. The coefficient of television transmitter dummy in model 1 is positive and statistically significant. The results show that television caused a significant increase in voter turnout. In other word, the individuals who live in provinces where television transmitter set up went to the polls much more, which is 8.849 percentage point.

It is also seen that high school and university graduate ratio increases voter turnout. This result is parallel with the literature that is more informed people more likely participate to the elections since they are more conscious their utility and preferences.

In model 2 We try to identify the determinants of voter turnout for several socio-economic variables. The variables in Model 2 are expressed in logarithmic form. Importantly, the relationship specified by most analyses may not be optimal, as there can be wide variation in population sizes across the sample. As such, it might be better to regard the natural logarithm of population size as is done in several paper, Filer and Kenny (1980), Blais and Dobrzynska (1998)[1].

The election years we examine in this regression are 1984, 1989 and 1999. The reason why We did not include 1994 election is that income data are not found for this year as censuses are held periodically in 10 years. Therefore We use 1999 election data and census. What is interesting in model 2 is that television dummy is statistically insignificant. We interpret this fact in this way; since most cities of Turkey were penetrated by television signals after 1985, watching television effect on voter turnout disappears. High school and university graduate ratio variable is still important to explain the determinants of voter turnout.

To control for the influence of income on voter turnout, We enter per capita GDP for each province (in 1987 prices) into the regressions. We find that voter turnout is higher in rich provinces relatively to poor provinces. The regression also shows that economic development fosters voter turnout. The reason underlying this hypothesis is that economic development makes people more informed and engaged in the political process (Powell, 1982). Powell does find a positive correlation between economic development and voter turnout.

The coefficient of population variable is negative and statistically significant in both models. This is parallel to the theory. Intuitively apparent, the greater the size of the community, the smaller the probability becomes that one single will make a difference. This leads a decrease in the expected utility from voting and makes it more likely that one abstains. Therefore this result shows the negative relation between population size and turnout rates.

5. CONCLUSION

This paper tries to uncover the determinants of voting turnout in Turkey between 1969 and 2009 in terms of decades. This topic has become a common research area in political economy and public choice literature. We study on Turkey in this paper and particularly try to find out how television influences people in terms of participation to the elections. Using a dummy variable that identify the provinces where television transmitter was set up before election, WE show that the provinces where residents began to follow television broadcast participated the elections more compare to previous election years. We also find that income per capita, high school and university graduate ratio and population is associated with voter turnout. Those results reveal that mass media, particularly televi-

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[1] We also run the regression in normal form and the results are parallel but logarithmic forms represent robust relation.

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sion broadcasting might affect voting behaviour of electorates and hence politicians may have an incentive to control the state television of the countries.

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