

Electoral Geography: Approaches to Study Voting Behavior

*Dr. Anupama Verma

Associate Professor, Department of Geography, Shaheed Bhagat Singh Evening College, University of Delhi, Sheikh Sarai, Phase II, New Delhi - 110017

Abstract


Approaches to understanding voting behaviour played an important role in the field of electoral geography. Studies based on voting behavior normally rely on information gleaned from primary and secondary sources of data. Aggregate or composite election data for states or constituencies is convenient for examining election results, such as differences in votes between states. Different perspectives or approaches played an important role in examining the factors influencing the way people vote. This type of information usually consists of data related to voter's behavior and their specific socio-economic characteristics etc. Electoral geography involves collecting and analysing data through various techniques and approaches. The data analysis study in electoral geography usually focuses on ascertaining spatial patterns of party performance and voters' behaviour. It is thus clear that electoral geography has a special place for approaches that are useful for spatial analysis. The primary aim of this study is to explain various types of methods and approaches used in electoral geography for the analysis of voting behaviour. This study provides researchers, geographers, political and social scientists with a better understanding of the skills to analyse election data.


Keywords: *Voting behaviour, Electoral geography, Approaches, Constituencies, Spatial analysis.*


Article Publication

 Published Online: 23-Mar-2022

*Author's Correspondence


 Dr. Anupama Verma

 Associate Professor, Department of Geography, Shaheed Bhagat Singh Evening College, University of Delhi, Sheikh Sarai, Phase II, New Delhi - 110017

 anupama.verma[at]sbse.du.ac.in

 [10.31305/rrjm.2022.v07.i03.012](https://doi.org/10.31305/rrjm.2022.v07.i03.012)

© 2022 The Authors. Published by RESEARCH REVIEW International Journal of Multidisciplinary. This is an open access article under the CC BY-

NC-ND license 
(<https://creativecommons.org/licenses/by-nc-nd/4.0/>)

Introduction

Electoral geography is the field of study of the geographical aspects of elections and their consequences. Specifically, it is the study of spatial voting patterns and behavior or the study of the spatial distribution of political events of voting (Adhikari, S.,1999). Electoral geography encompasses many fields of study such as the spatial analysis of elections, including the study of spatial variation in voting patterns, party performance, population characteristics, importantly socio-economic and cultural factors. The political geographer's task is to explain or account the spatial variations related to above mentioned areas of study of electoral geography. During the 1960s as part of the adoption of a positivist approach in human geography, as a result the impact of the quantitative revolution was clearly visible in the field of electoral geography as well. Election studies offered a large amount of data whose spatial variability could be analyzed within this 'paradigm', and correlation methods were adopted to examine the associations, between voting and other social characteristics at an aggregate level. The field of electoral geography is important not only for itself but "Electoral studies under certain conditions can be a starting point of research in political geography by providing criteria for territorial divisions of the state" (Prescott,1959)¹. Electoral geography has the potential to make a significant contribution to the regional political geography of a state and is therefore very important. Different type of methodology or techniques can be used in electoral geography to better understand all these points. Here the main objective of this study is to describe important approaches of electoral geography to understand voting behavior in detail. The study also mentions some innovative map making techniques such as

¹ Sinha, M. and Ray, A., 1995, "Electoral Geography", Political Geography, Horizon Publisher, Allahabad, U.P., pp. 251-287.

Geographic Information Systems that were being used in these approaches at the present time. It has played an important role in the analysis of cartographic techniques to draw maps of different constituencies, districts, states and countries in context of election results. Geographical information system (GIS) has contributed a lot in giving it a modern and advanced look to provide effective results. That is why an attempt has been made here to describe the usefulness and characteristics of various approaches to study voting behavior. Hence this study provides information about the different approaches used in electoral studies. This study is particularly useful for geographers, political and social scientist and also for the general public. If viewed for electoral research, the approach is the specific process or technique used to selectively process, identify and analyze information about people's perception and election results.

Objectives

The following are the objectives of this study:

1. To describe important approaches of electoral geography.
2. To describe the characteristics of the different approaches commonly used in the study of voting behavior.

Methodology

In order to make the present research possible, different kind of secondary sources have been used. Through which the use of different types of approaches and their importance in electoral geography have been described. To accomplish the above-mentioned objectives, the present study has used various political and electoral geography books and research papers.

Approaches of Electoral Studies to understand Voting Behavior

There is a need to adopt such methods of scientific inquiry in the field of electoral geography which ensure fairness to the extent possible. The methods commonly used in electoral geographic studies can be classified in a variety of ways. Here are mentioned three convenient stages through which electoral studies can be easily understood.

1. Observation and collection of evidence/data,
2. Description of collected evidence/data; and
3. Analysis.

The detailed description is as follows-

1. Collection of Evidence/data-

Electoral geography, like all other fields of geography, is based on field work and documentary evidence. The field work has two important distinct aspects, direct observation and interview. micro level interviews have greater significance, it may prove quite useful in certain cases and more expedient as well, to hold direct discussions with the government officials, the eligible voters and party officials. These interviews may be both extensive as well as intensive and great care needs to be taken in framing questionnaires, in extensive interview in the selection of samples as well (Duverger,1964; Young,1958; Moser,1958).

The documentary evidence, of interest to electoral geography, falls in two categories the primary documents and the secondary sources. The primary documents include official publications of materials on elections and other published statistics e.g., demographic and socio-economic characteristics. On the other hand, the secondary sources, includes newspapers, books, periodicals and monographs etc. "The published data on which electoral studies are generally based, often present problems of statistical comparisons, given that the different types of data available may all be available for different types of field units at once. Among various methods of solving such problems, the cartographic technique seems quite practical (Lewis, 1965)".

2. Description of Evidence

The Description of evidence is important in study of electoral statistics. More generally at this stage cartographic tools are of great importance and are used as a means of transmitting information in graphic form. They also help in identifying the areas of change, political consciousness, strength of the party, and choice in the electoral districts.

3. Analysis

The next step in the investigation is the analysis of the patterns identified in the description phase. While the ideal lies in arriving at a holistic explanation, it often becomes practical to dwell on a partial explanation. Prescott, (1972) identifies four analytic pathways that lead to explanatory, cartographic, classical, comparative and mathematical, a possible mixture of which is considered the most restructuring (Prescott, 1969 and 1972).

The Use of cartographic techniques in geography has a long tradition and with the revolution in disciplines, new dimensions of their applications have also opened up. "Electoral geography involves studying the regional distribution of an element of the electoral landscape, such as the boundaries of constituencies, or examining the regional combination of several potentially related elements, such as areas of party predominance and the ethnic composition of voters" (Prescott,1972). The use of Geographic Information System in map making made it even more modern and advanced. Cartographic techniques are particularly economical as a research tool in electoral geographic investigation (Lewis, 1965). Comparative analysis is also an important part of the study of electoral data. The path of comparative analysis is capable of making useful generalization and laws. General comparisons in which such analysis involves comparing the same election event in two different regions at the same time or events in the same region at different times. The last but most important research method that has already become fashionable is mathematical analysis. For example, there is a vast scope for the use of mathematical methods in electoral research, it is possible to accurately measure such election topics as the number of candidates, number of votes for each candidate and party, size of electorates in terms of area, number of voters and number of polling both etc. (Sinha, M. and Ray, A.,1995).

Approaches to Study Electoral Geography

Remarkably, is about half a century after its origin, the field of electoral geography has reached a stage at which it is possible to identify different approaches to its study. These approaches are more easily defined in the field of study of political choice or party preference. Pelling 1967 distinguishes between the ecological approach, which "relates political behavior to the voter's environment and the patterns of his or her social life" and the sociological approach, which "relates the relationship between political behavior and a voter's social class, occupation, and ethnicity"(Prescott,1972). There have been basically two main approaches to the study of elections used by geographers. They are Aggregate data analysis approach or Areal approach and behavioral approach.

(a) Areal approach/ Aggregate Data Analysis Approach

Under this approach Research work has been done on aggregated election data. There are two main streams of this approach:

i) Areal structural approach:

Studies under this approach mainly focus on the spatial pattern of voting, i.e., the spatial distribution of voter turnout and seats won by contesting parties etc. The results are constituted by choropleth map. It gives a quick visual idea of the regional patterns of the party's stronghold. The origins of this approach can be traced to the application of the social field concepts of Shevky and Bil's (1955) to electoral studies by Kaughtman and Greene (1959).

ii) Areal ecological approach:

Under this approach, an attempt is made to compare the voting map with maps of other variables – physical as well as socioeconomic. This approach examines the correlation between voting patterns and socio-economic variables. With the availability of sophisticated statistical techniques, hypothesis testing

has become popular.

Since the 1960s, the increasing use of quantitative techniques in the subject has led many geographers to use quantitative techniques to correlate electoral data with socio-economic data. Some of the most widely used statistical methods in the field of electoral geography are multiple regression analysis, factor analysis, and principal component analysis and co-efficient of correlation analysis etc. In 1960, a group of geographers led by Cox, Reynolds etc. came up with behavioral approach. They stated that the aggregate data analysis approach does not allow any differences or predictions to be made about individual behavior and also that the interaction between regional units cannot be studied through this approach. In the end it can be said that, the areal association model, especially ecological correlation, is a time-tested and useful technique, regardless of weaknesses and problems. It has been successfully used to discover new dimensions in voting.

(b) **Behavioral Approach**

For some geographers the analysis of voting data by regional units is not considered 'spatial' enough to form a specific electoral geography. Standard statistical techniques such as the regression analysis used by Hechter and others ignore the spatial context of areal units that are treated as separate and independent observations. According to Cox and Reynolds election was essentially a transitive and contextual process, and therefore, a spatial approach is needed to study elections. Their level of study is the individual voter and the individual voter is located in the total environment in which he or she lives, and their voting response is analyzed accordingly. They made the basic assumption that any change in voting pattern is either due to change in information flow network or relocation of voters. Information flow network is defined as nodes and links (Cox, K.R., 1969). The behavioral model assumes that the relationship of aggregate data such as the number of votes and the socio-economic conditions of voters does not allow for any distinction or prediction about individual behavior: further that the geography of the election as a function is better explained by nodal characteristics. Individual elector is envisaged as a node or a point in the information flow network. This node distributes information from one node to another and connects the voting nodes to other nodes. Nodes between which information flows may include not only individuals but also families, informal or formal group meetings in one location, urban spaces and sources of mass media. The link is the relationship between nodes that has been discussed in terms of four bias types of relationships – geographic distance bias, acquaintance circle bias, homo-selectivity bias and reciprocal bias. The probability of a relationship between two nodes is a function of these four bias type relations. Cox made an invaluable contribution to applied or behavioral electoral geography in the article "Voting Decisions in a Spatial Context", which was published in 1969 in *Progress in Geography* (Adhikari, S.,1999). In other words, behavioral approach is concerned with the interpretation of voting behavior of the electors and their regional variations. Voting behavior of the electorates are directly influenced by the boundaries of the constituencies, socio-economic conditions and with the programs and policies of different political parties etc. An individual's perception about different political parties and electoral environment is also the central theme for the study.

In this approach there are four primary processes that can create local influence on voting behaviour:

- i) **Candidate Voting or Friends-and-Neighbours Effect-** which is commonly found in American, Japanese, Irish and New Zealand elections. This approach has particular implications in electoral geography, whereby voters prefer local candidates. This model or approach is associated with the spatial dissemination of information about candidates far from their home region. Election results show the density gradient of support around the candidate's home, i.e., support decreases with distance from their homes.
- ii) **Issue Voting** occurs when the election involves a particular topic of choice that is of greater importance to some regions than to other regions.
- iii) **Campaign Effects** reflect the various impacts of the campaign. This may include specific targeting.

- iv) **The Neighbourhood Effect-** The influence of neighborhood in voting is the most studied geographic effect. It attempts to explain why it is that parties perform better than expected in their strongest areas. Neighborhood effect is a form of local social influence. The characteristics of people's social environment are believed to influence the way they think and act. It intervenes between perceived self-interest and actual behavior, with individuals not only in their best interest but also over the opinions and images of the neighborhood population with whom they interact.

Behavioral model or approach in electoral geography rely mostly on survey analysis, including the complexity of questionnaires and interviews with a sample of voters. It involves intensive field work. Sometimes researchers find difficulties in carrying out survey work, mainly because of illiterate voters who are more attracted to their caste/communal and political allegiance, and do not respond to the queries. Behavioral models or approaches are making their presence felt as a tool in geographic research, in electoral studies.

The above-mentioned approaches flow from the philosophy of positivity. In Geography the positivist philosophy and subsequent quantitative revolution in geography led to evolution of geography as spatial science. Aggregate data analysis approach closes from the spatial science paradigm in geography. Within aggregate data analysis approach, we find two streams areal structural and areal – ecological. Since areal structural approach only identifies the spatial pattern of voting whereas in areal ecological approach not only spatial patterns are identifiable but it also tries to explain by the particular pattern evolved. Therefore, initially a number of works was carried out with areal structural approach but of late only areal ecological approach is being followed in the analysis of elections. In 1960s behavioral geography came into existence due to dissatisfaction with spatial science paradigm. Although this approach also flows from positivist philosophy but they did not believe in the concept of ‘economic man’ and rational behavior of human being to them. Spatial pattern is a product of individuals behavior and individual behavior is guided by the perceived environment of the individual. Therefore, spatial pattern can be better understood through understanding of perceived environment of individual. Electoral geographers also followed this approach which developed into the wider field of geography. Thus, in the approach to the study of electoral geography, the reflection of spatial science paradigm and behavioral approach to the subject of geography is defined.

Conclusion

It is clear from the above description that for any research in the field of electoral geography, the next important step after the selection of political concepts and geographical frame work was the adoption of a methodology and technique of studying interrelationships between different phenomena and political processes. There have been basically two approaches to the study of election used by geographers, the areal approach and the behavioral approach. If the study is made at the individual voter level, the behavioral approach may be good choice. Whereas areal approach is best suited if the study of election has to be made at aggregate level, such as constituencies. This study includes the characteristics of both approaches. Every approach has its limitations. For example, only a very small area can be studied through a behavioral approach as it involves intensive field work, and therefore, studies for a large area have to rely on the areal or aggregate data analysis approach. The aggregate data analysis approach can be viewed as a laboratory where laws and principles can be generated and tested in the field of behavioral approach. Thus, both the approaches can be very useful for the study of election.

References

- Adhikari, S., (1999), “Electoral Geography”, Political Geography, Rawat Publication, ISBN 81-7033-375-9, pp. 403-433.
- Cox, K.R., (1969), “The Voting Decision in a Spatial Context”, Progress in Geography, Vol. 1, pp. 81-117.
- Kavianirad, M., (2015), “Explanation of relationship between Geography and Elections (Electoral Geography)”, Geopolitics Quarterly, Volume: 10, No 4, PP 93-108.
http://journal.iag.ir/article_55904_cbe33daf5dca858cf1df7993e87d0e15.pdf

- Prescott, J. R. V., (1959), "The Function and Methods of Electoral Geography", *Annals of the Association of American Geographers*, volume 49: issue 3, pp. 296-304.
<https://www.tandfonline.com/doi/abs/10.1111/j.14678306.1959.tb01615>.
- Sinha, M. and Ray, A., (1995), "Electoral Geography", *Political Geography*, Horizon Publisher, Allahabad, U.P., pp. 251-287.
- Woolstencroft, R.P.,(1980), "Electoral Geography: Retrospect and Prospect", *International Political Science Review*, sage publication, volume 1, issue 4, pp. 540-560. <https://journals.sagepub.com/doi/abs/10.1177/019251218000100407>