MULTIDIMENSIONAL ANALYTICAL VIEW OF ELECTION DATA WAREHOUSE BASED ON DDC POLL RESULTS OF JAMMU AND KASHMIR

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ABSTRACT:

The scheme of Indian government titled “Panchayati Raj” acts as the pillar of India's political system, in which each village would be creditworthy for its possess matters. As per the 73rd constitution amendment, there are three level panchayat system is adopted in India. The Gram Panchayat, Ksetra Panchayat and Zilla Panchayat are functioning at village level, block level and district level respectively. Panchayati Raj Institutions are tasked with economic growth, strengthening social justice and implementation of State and Union Government Schemes including those 29 subjects scheduled in the Eleventh Schedule of Indian Constitution. In this paper the authors examine the recent poll results of District Development Council (DDC) for Jammu and Kashmir State which was held during November - December months of 2020 over eight phases. Data mining is one of the machine learning and statistical tool in knowledge domain. It helps to extract the hidden information from the existing data set. The DDC poll results are extracted through the data mining tool R and presented here. This statistical analysis helps to understand the people mind and brings strength and weakness of the political parties in concern regions.

Keyword: Data warehouse, Multidimensional view, Data Analysis, Panchayati Raj, Poll analysis.

I. INTRODUCTION:

Panchayat Raj system is a vital role to empower the common people in India. The election poll results data is correlated with the census of the specific state which is a micro level of the nation [1,2,3]. The poll results, voter turnout, vote share are compared with the analytical view of data warehouse approach. This paper emphasis the correlation between the populations of the micro regions is established with the computing techniques. In 2019, Union Government of India separated the existing Jammu and Kashmir transitioned into two Union Territories of J&K and Ladakh. It conducted the first major election after the process of separation which held for District Development Council (DDC). The total number of DDC segments is 280 in which the election results were declared for 278 segments.

The PAGD comprises of 7 political parities such as regional parties Jammu & Kashmir National Conference, People Democratic Party, Jammu & Kashmir People Democratic Party, Communist Party of India (Marxist), J & K People Movement, J & K People Conference and Awami National Conference. The PAGD is a combination of political parties at a count of seven. The objective of the above stated combination is the reestablishing the state’s special constitutional supplies, have exacted the triumph. BJP sealed 75 wins, the PAGD has ceased biggest pre-poll bond with a total of 110 wins and 50 seats has been won by the freelancers or independent persons. The following five charts, presents the DDC results for J&K elections.

Data:

The data set for this work has been extracted from the State Election Commission of Jammu & Kashmir and Ladakh Union Territories web portal and Election Commission of India web portal. The 20 districts of this Union Territory Kathua, Jammu, Samba, Udhampur, Reasi, Rajouri, Poonch, Doda Ramban and Kishtwar belongs to Jammu region, Anantnag, Kulgam, Pulwama, shopian, Budgam, Srinagar, Ganderbal, Bandipora, baramulla and Kupwara belongs to Kashmir Region are considered for analysis [4,5,6].
The results of six parliamentary constituencies of this region are also considered for the statistical research work. The census data is retrieved from the online portal of the Office of the Registrar General & Census Commissioner, India. The Figure-1 shows the district map of Jammu & Kashmir (Union Territory) along with the areas A-Gilgit, B-Ladakh (northern and eastern portions), C-Gilgit Wazarat, D-Chilas, E-Tribal Territory, F-Muzaffarabad, G-Punch (western portion) and H-Mirpur.

Methodology and Results:

Data mining is found to be very useful in many fields like electronics, social sciences, bio informatics, power engineering, genetics, weather forecasting, medicine, DNA and RNA sequence prediction, education etc. It is used to extract hidden knowledge from the huge amount of database. In this paper, a multidimensional data model for the election poll results database is considered and it is viewed in the form of a data cube [7]. The modeled election data warehouse allows information to be viewed in numerous dimensions. There are three dimensions are modeled in the 3-D data cube [Figure-2]. The national, state and DDC polls are considered in election type dimension. The national and region based political parties, location is considered as other dimensions. The hierarchy of the location is State > Region > District > Constituency. In multidimensional view the model can extend to gender based poll verdict, demography based voter turnout and etc. The seats won by the political parties, vote share and voter turnout are considered as measures in the model. The proposed three tier architecture diagram for analysis the election data is shown in the [Figure-3].

The end results are represented in various charts. The stated five charts present the DDC outcome of Jammu and Kashmir’s elections. These charts are explored the hidden information about the public mindset and political interest. The vote is analyzed based on the types of political party as well as demography of the concern region. Voters’ turnout is also considered to analysis in this work. When the authors look the recent DDC poll elections, the national ruling political party of India, From the outcomes, it is to be identified that the party BJP won the maximum seat share in these conducted elections. It is to be observed that the party BJP has also contested the highest number of council segments in the elections. This reason behind the above stated move is that the there are only two already ruled state parties available in Kashmir valley. The parties are NC & PDP who aligned with the PAGD which holds 5 other tiny parties in the same state. An equivalence study of success rates (seats succeeded as a depart of seats repugned) proves the national ruling party BJP is botty the four portions of the PAGD.
Figure 2. The multidimensional data cube for J&K election data.

Figure 3. Three-tier data warehousing architecture for election data.

Figure 4. The striking rate of parties in the DDC elections 2020.
The Figure-4 shows the strike rate of the political parties which contested in the DDC elections in 2020 in this region. The strike rate is calculated that the constituencies acquired as a part of seats contended. The above statement presents that why the PAGD alliance has captured than the national ruling party. The National Conference party contested on 168 locations and state party PDP team contested 68 seats in this election. However, the parties’ success rate is largely similar. Even though another national party Indian National Congress (INC) be the major political power in the particular state, but they pushed to lower position to the BJP in terms of the excise rate. The main PAGD parties won higher share of contested seats than the BJP win. The party BJP holds the chair position in the alliance National Conference-People Democratic Party, even in terms of the vote shared in contested seats. At the same time as its contended vote percentage is slightly better than the NC’s, and it is significantly too excessive than the PDP. The above observation shows that a new vision is created for J & K regions separately.

Table 1: Vote share of Political Parties in Jammu and Kashmir regions.

<table>
<thead>
<tr>
<th>Party</th>
<th>Jammu</th>
<th>Kashmir</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>BJP</td>
<td>37.3</td>
<td>4.2</td>
<td>28</td>
</tr>
<tr>
<td>NC</td>
<td>23</td>
<td>35.6</td>
<td>26.3</td>
</tr>
<tr>
<td>PDP</td>
<td>12.6</td>
<td>27.8</td>
<td>20.6</td>
</tr>
<tr>
<td>INC</td>
<td>21.2</td>
<td>17.9</td>
<td>20.6</td>
</tr>
</tbody>
</table>

As per the Table-1, the Figure-5 shows the vote share of main political parties in these regions. The countrywide ruling celebration BJP has the best participated vote percentage inside the vicinity Jammu and the lowest inside the Kashmir region. This statistics shows that the result is crucial for predicting the eroded moves in J and K politics. As compared with all states and union territories, it is to be observed that the region Jammu and Kashmir holds the maximum of Muslim population.

There is a total 96.4% of the Muslims population has been constituted in the sum of 10 districts in Kashmir region, based to the census data of 2011. Similarly the religion Hindus constitute at a rate of 62.6% in the population of Jammu’s region.

The total 20 districts has been split into three divisions – 11 divisions are entirely Muslim districts (Muslims population is merely 90%), 4 divisions are entirely Hindu districts (where Hindus population is merely 90%), and the remaining 5 districts have combined groups of Hindus and Muslims at the ratio of 5:7.
Table 2: Vote share of political parties in census based region types.

<table>
<thead>
<tr>
<th>District Type</th>
<th>PAGD</th>
<th>BJP</th>
<th>INC</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entirely Muslim Districts (11)</td>
<td>56.58</td>
<td>1.97</td>
<td>8.55</td>
<td>32.89</td>
</tr>
<tr>
<td>Mixed Districts (5)</td>
<td>31.43</td>
<td>34.29</td>
<td>18.57</td>
<td>15.71</td>
</tr>
<tr>
<td>Entirely Hindu Districts (4)</td>
<td>3.57</td>
<td>85.71</td>
<td>0</td>
<td>10.71</td>
</tr>
</tbody>
</table>

As per the District Census Handbook of Census India 2011, there is a title Entire Muslim districts, which contains only Muslim people with greater than 90% of population and Entire Hindu districts holds a maximum of 90% of Hindu population and the remaining five districts have combined groups of hindus and muslims at the ratio of 5:7. The poll details of DDC highlights the people polarization in Kashmir and Jammu regions. The celebration BJP received 86% of seats with a value of 56 seats within the Hindu districts and a 2% that is 152 seats within the Muslim districts. The PAGD alliance won 57% seats in the Muslim districts compared to 4% in the Hindu districts. As per the demography statistical view, the national political outfit Indian National Congress (INC) has managed a significant role in the mixed districts regions. It has secured 19% and came third position.

That politics of Jammu and Kashmir’s with their religious geography is well known to the political world. With the NC-PDP alliance and other smaller parties help in opposition to the BJP, the outcome observations of the elections turned into now not too storming. The query is that the BJP been capable of gain political ground inside the Kashmir location with the aid of championing the Union authorities’s choice to take apart the former country’s autonomy and attaining it right into a UT, on the way to lead the state for development? While the party BJP is spotlighting the statistics that they gained three seats in the Kashmir region election, this cannot be equated to a achievement in meeting or Lok Sabha elections since DDC segments are very much tiny. The DDC polls are completed for the first time; hence there are no such comparisons with the preceding election related records. The Table – 3 describes the BJP’s vote share has been very low in Kashmir while it enjoys one-third to a majority support in Jammu region. In this table GE is general election, AE is assembly election, and DDC is District Development Council election of this region. The Table-3 shows the vote share of BJP in different regions of J&K UT in last 4 elections. The Figure-4 describes the vote share results in percentage.
Table 3: The national ruling party of India BJP vote share in different regions of J&K state.

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<tbody>
<tr>
<td>Jammu</td>
<td>48.2</td>
<td>40.2</td>
<td>59.3</td>
<td>34.4</td>
</tr>
<tr>
<td>Kashmir</td>
<td>1.2</td>
<td>2.2</td>
<td>1.3</td>
<td>3.3</td>
</tr>
</tbody>
</table>

**Figure – 7. Vote share of BJP in Jammu and Kashmir regions.**

A vote-percentage comparability with the 2014 assembly elections and 2019 Lok Sabha elections states that the party BJP goes to be an unimportant party inside the Kashmir region politics. Because the local body election procedure and the execution standards are completely different whilst the comparison of the national or country level election method. The observation at the local body election is that there is huge possibility to reach the win at a low number of vote variations.

One great aspect in each election of Jammu and Kashmir is that the voter turnout process. The electorate involution dangled significantly within the former state, mainly inside the Kashmir vicinity, later on the militance burst in the 1980s. Inside Lok Sabha elections of the year 2019, the voter turnout count in Kashmir area become lowest within the two decades. The special survey states that the Union territory saw 51% of voter turnout in the DDC elections within the year 2019 and this changed into biased closer to the location Jammu. As in step with the survey, only 68% of registered electors they have been voted or participated in the Jammu region elections, at the same time 34% of voters participated in the Kashmir region elections. The bear in the Kashmir region at this time was 15% ahead than the 2019 Lok Sabha election and at the same time, it is 22.5% less than the 2014 assembly election. The observations of the above states that only a third of the registered electors in Kashmir have been voted. The Table-4 shows the voter turnout in J&K UT in last 14 elections and the [Figure-8] describes the results in percentage.

Table 4: Voter turnout in J&K state in last 14 elections.

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<tbody>
<tr>
<td>J</td>
<td>68.6</td>
<td>48.3</td>
<td>48.8</td>
<td>60.4</td>
<td>52.6</td>
<td>43.2</td>
<td>55.8</td>
<td>44.7</td>
<td>71.6</td>
<td>47.2</td>
<td>69.2</td>
<td>75.9</td>
<td>71.4</td>
</tr>
<tr>
<td>K</td>
<td>76.9</td>
<td>3.4</td>
<td>42.6</td>
<td>43.4</td>
<td>31.5</td>
<td>16.2</td>
<td>29.6</td>
<td>22.7</td>
<td>51.6</td>
<td>31.2</td>
<td>31.2</td>
<td>56.5</td>
<td>19.2</td>
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II. CONCLUSION:

The national political party BJP got the highest share of votes in contested seats in Jammu region while the Gupkar Alliance (PAGD) got the highest in Kashmir. BJP's vote share has been very low in Kashmir while it enjoys one-third to a majority support in Jammu region. The PAGD won a majority of seats in Muslim-dominated districts while the BJP swept the Hindu-dominated districts as per the 2011 census. The PAGD won higher share of contested seats than the BJP could win. The PAGD secured first and BJP managed second while INC got third position in overall the results.

Acknowledgement

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REFERENCES: