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A Study of Justification of Election Exit Poll Results: Analysis Through Media Text Sentiment

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Abstract: This study looks at how the sentiment of media texts can help explain and support the precision of election exit poll results. It collects news and broadcast material related to an election, uses sentiment analysis methods to categorize opinions about the main parties or candidates, and then compares these sentiment patterns with exit poll forecasts and actual results. By quantifying the alignment or divergence between media sentiment, exit poll estimates, and actual results, the work evaluates whether systematically measured media tone can explain exit poll errors, highlight potential biases, and provide an auxiliary signal for assessing the credibility of election-night forecasts. This study aims to evaluate the predictive capacity of social media in forecasting the results of the 2024 lok sabha elections in West Bengal before the election took place, especially during the campaign time. This work orients by collecting a substantial volume of social media data through web crawling techniques, utilizing data analysis methods, comprehending sentiment analysis and machine learning, applied to evaluate the relationship between tweet volume, sentiment polarity, and electoral outcomes. This study aims to establish if engagement on social media can be a viable metric in determining election outcomes. This study will add to the existing literature on computational analysis of politics and social media-based election crystal gazing and provide insights on the impact of digital conversations in a democracy.

Keywords: *Artificial Intelligence, Machine Learning, Deep Learning, Natural Language Processing, Explainable Artificial Intelligence, Social Media Trends, Political Forecasting, Lok Sabha Elections.*

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I. INTRODUCTION

A study titled "A Study of Justification of Election Exit Poll Results: Analysis Through Media Text Sentiment" can be framed as an applied data science and political communication project that links exit poll accuracy with sentiment patterns in media coverage. An exit poll is a survey of voters taken immediately after they have voted and is widely used by the media to project election outcomes before the official results are announced. [5][7] But this suffers from errors in sampling, non-response bias, and methodological differences between different agencies, leading to a wide deviation from actual results. [3][4] This project proposes to analyze media text sentiments around exit poll announcements and election campaigns to see whether media sentiment patterns can help explain, contextualize, or even partially justify the correctness or incorrectness of the exit poll predictions. [6]

Elections are the backbone of democratic governance and give citizens the opportunity to elect their representatives and thereby influence the future political direction of their country. In this dynamic atmosphere, exit polls are quick predictions about the likely election outcome, based on responses from voters immediately after they exit polling booths. In fact, such exit polls very often project political storylines well before the announcement of actual results. Media outlets play a very important role in representing and interpreting exit polls for the general public. However, the representation of the findings of exit polls often varies considerably between different media outlets because of editorial stance, political biases, ownership influences, and audience expectations. [6]

With the advent of digital journalism and social media dissemination, the tone and sentiment that media texts use have turned influential in the course of shaping political opinions. On the other hand, sentiment analysis makes use of computational strategies and natural language processing to arrive at a systematic way of assessing emotions, tone, and bias in textual content. This project, therefore, seeks to establish how various media organizations justify, interpret, or

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critique election exit poll results based on the sentiment-laden content. The main objective is to ascertain if the sentiments expressed correspond to the actual exit poll data or deviate to construct certain ideological narratives.

II. BACKGROUND AND RATIONALE

The exit poll has become a central feature of modern electoral coverage, offering instant information about voter choices, motivations, and demographic patterns. [5][6] Media outlets use them to frame narratives about likely winners, swing regions, and issue salience well in advance of completed counting. [1][6] Yet, exit polls are not infallible; their accuracy depends on sample design, field practices, questionnaire quality, and weighting procedures, and often diverges between polling agencies reporting on the same election. [3][4]

At the same time, news and social media constantly frame elections by directing attention to specific candidates, issues, and regions while, in the process, generating a quantifiable sentiment environment for the electoral process. [5] Sentiment in media content-positive, negative, or neutral tone towards parties and candidates-can shape public perception and may also correlate with actual electoral outcomes. [6] Analysing media sentiment in relation to exit poll predictions allows the assessment of whether the "mood" captured in media text aligns more closely either with exit poll estimates or official election results, or neither. [5]

The importance of such a study lies in several aspects. First, the study can serve as an empirical basis to evaluate the credibility of exit polls in any given electoral context, beyond simple error margins. [4][8] Second, by comparing sentiment trajectories with both exit poll numbers and final results, the study can find out systematic biases in media coverage - over-optimism toward certain parties or under-representation of specific voter blocs. [3][6] Third, the analysis can inform ethical and regulatory debates, with election management bodies increasingly monitoring media and digital platforms to prevent premature or misleading exit poll dissemination. [2][9]

➢ *Problem Conceptualization*

Although exit polls and media coverage are the two central aspects of how elections are perceived, relatively few systematic analyses jointly examine the accuracy of exit polls and the pattern of media sentiment. [4][6] Most discussions to date simply treat exit polls as having been right or wrong, without investigating whether the broader sentiment environment of the media supports or contradicts these polls. [3][9] Conversely, media sentiment studies usually predict the outcomes directly from text data rather than use sentiment patterns to investigate the validity of exit poll projections. [5]

The basic problem the project addresses is: to what extent can media text sentiment help justify, explain, or challenge the results of election exit polls when compared against official election outcomes? Concretely, if the exit polls overestimate or underestimate support for a party or alliance, does the direction and intensity of the media sentiment provide early signals of such deviations? [3][5] In addressing this problem, methods from sentiment analysis, polling methodology, and election studies have to be integrated.

➢ *Objectives of the Study*

The broad objective of the project is to develop and evaluate a framework that uses media text sentiment to analyse and justify the exit poll results for a certain election. [5][7]

Within this broad objective, the study will pursue the following specific objectives:

- To review and document the methodological aspects of the exit poll, including sampling and questionnaire design and known sources of error and bias. [3][4]
- Collect and preprocess media text data on news articles, TV transcripts-where available, and digital media reports that report on the selected election, with a particular focus on the period surrounding the publication of exit polls. [5][6]
- To apply sentiment analysis techniques on this media corpus to derive time-series sentiment indicators for major parties, alliances, and key leaders. [5]
- To compare the results of exit polls, media sentiment indicators, and official election results at aggregated and sub-aggregated levels-e.g., state or region-to assess alignment or divergence. [4][8]
- To propose a justification framework that explains whether and how media sentiment patterns can be used to interpret exit poll success or failure in predicting final outcomes. [5][6]
- To propose a justification framework that explains whether and how media sentiment patterns can be used to interpret exit poll success or failure in predicting final outcomes. [5][6]
- Derive recommendations on how media organizations, polling agencies, and regulators should communicate transparently with regard to the actual results of exit polls based on evidence about sentiment and bias. [2][9]

➢ *Scope of the Study*

The project will focus on one or two major elections, such as a recent national or large state assembly election, in which multiple exit polls were conducted and widely reported by the media. [2][3] The analysis will be limited to publicly available exit poll data, including seat-share or vote-share projections by different agencies along with final official results from the election commission. [4][9] Media text data will be mainly from mainstream news websites and online articles; curated social media posts can be included optionally, provided they originate from verified news handles. [5][6]

The temporal scope will typically range from a few weeks before polling to the declaration of final results, with particular emphasis on the release window for exit polls. [5] Geographically, the study will be using the same unit of analysis as that utilized in the exit polls-that is, state level for national elections or constituency/region aggregates wherever

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the data allows. [4][8] It will not seek to model individual-level voting behaviour nor try to cover all forms of disinformation but instead focus on aggregate sentiment patterns and the relation thereof with regards to the performance of the exit polls. [6]

III. OVERVIEW OF LITERATURE

The conceptual foundation of the project lies at the intersection of three strands of literature: exit polling and survey methodology, media and election studies, and sentiment analysis in computational social science. Exit polls are a particular type of opinion poll conducted at the polling station, and as such they are subject to non-response bias, social desirability bias, and limitations of the sampling frame. [3][7] International bodies and professional associations have issued guidelines on designing and evaluating exit polls, emphasizing representative sampling and careful reporting of uncertainty. [4][8]

Media studies emphasize how news coverage and broadcast projections in setting electoral expectations may affect voter behavior, especially in multi-phase elections or in countries spanning multiple time zones. [1][6] Election management authorities responded by regulating the timing and content of exit poll publication, especially on broadcast and digital platforms, to prevent premature release of partial results. [2][9] At the same time, a series of computational studies showed that sentiment extracted from news and social media can sometimes correlate with electoral performance, though this relationship is far from perfect and sensitive to data sources and methods. [5][6]

Taken together, these considerations inform the proposed work with the recognition that media sentiment on its own is not the only predictor for election outcomes but forms an added lens through which to assess the validity of exit polls and media narratives. [5] This approach was cognizant of both the strengths and limitations of exit polls and of sentiment analysis, positioning the study as a methodological contribution rather than a simple forecasting exercise. [7]

IV. PROPOSED METHODOLOGY

The methodology of the project can be broadly divided into four phases: data collection, data preprocessing, sentiment analysis, and comparative evaluation with exit polls and official results. [5][8]

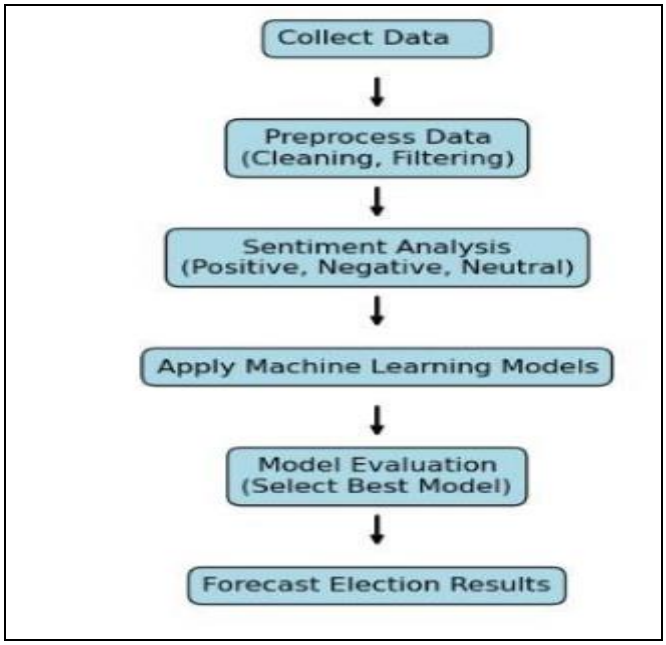

Fig 1 Flowchart for Predicting Election Results Using Social Media

➢ *Data Collection:*

The data from exit polls consists of the exit poll results from several agencies for the selected election. The projected seat share or vote share is for major parties or alliances, with the time of publication and, where available, the summary methodology, including sample size and geographic coverage. [3][4] We collect data from a wide range of participants, including ordinary citizens, political candidates, media outlets, and political parties. This comprehensive data collection strategy allows us to capture a more holistic view of the political discourse.[12]

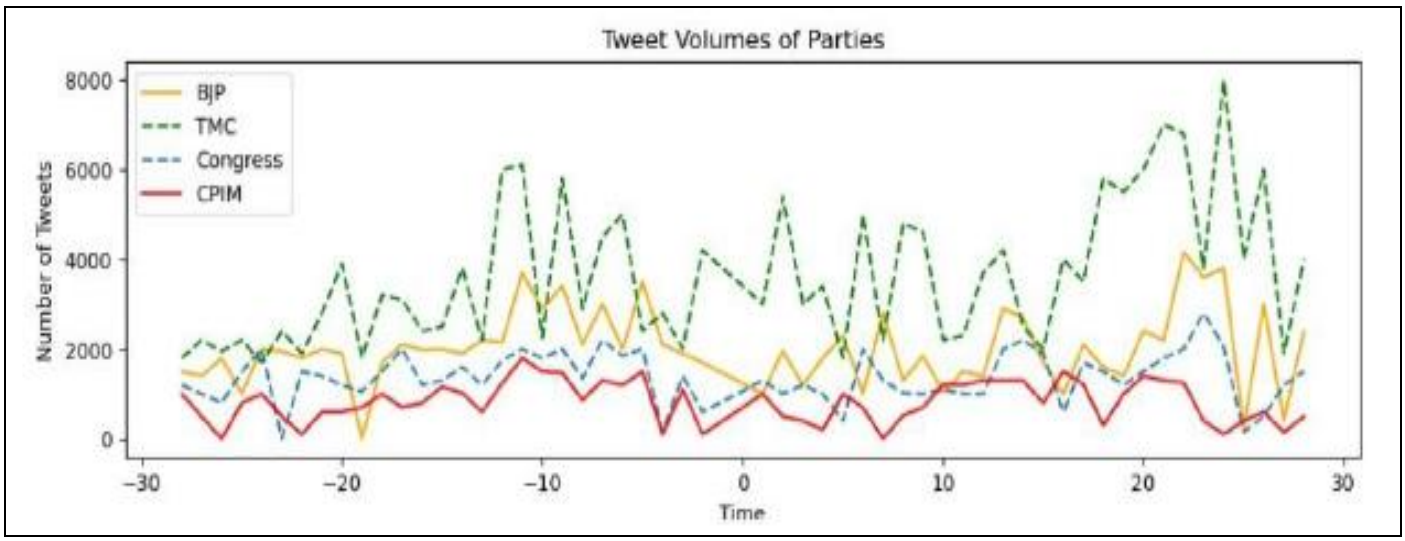

Fig 2 Tweet Volumes of TMC, BJP, CPIM and Congress During June 15, 2024 to August 12, 2024

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In our data collection process, we utilize a scraper tool [14] that enables us to extract tweets based on dynamic and evolving keywords. This approach allows us to adapt our data collection to trending political topics, ensuring responsiveness to the changing political landscape [13]. Our data collection period spans from May 15, 2024, to June 12, 2024, covering the entire election season. To start, our initial keyword set focuses on political parties, prominent personalities, and constituencies. However, to reflect the fluid nature of political discourse, we implement a system that identifies the top 10 trending topics daily in 15 politically sensitive cities across India. By integrating these trending topics, we can capture real-time political discussions and sentiments instead of relying on a static set of keywords. This methodology allows us to collect a diverse range of political opinions, effectively reflecting the evolving sentiments of the electorate.

➢ *Official Results:*

These are the final election results coming directly from the official election commission at the same level of aggregation as the projections of the exit poll, meaning for example seats won per party per state. [4][9]

The work includes generating a word frequency list for the entire dataset and manually selecting the most relevant keywords. Two mutually exclusive sets of keywords are created:

- KS1: This set includes key personalities and party names directly related to the 2024 General Election (e.g., BJP, Modi, Congress, and TMC).
- KS2: This set comprises contextual keywords related to locations, constituencies, and political issues (e.g., West Bengal, Delhi, and Gujarat).

Additionally, we create another word frequency list specifically for tweets where the count of KS2 equals zero. From this list, we manually select a set of highly relevant keywords (KS3) that clearly pertain to the context (e.g., West Bengal Elections, candidate, vote, SSC Scam, Kanyashree).

Our algorithm for tweet selection and rejection is as follows:

Table 1 Data Selection Methodology

Sample Tweets	KS1	KS2	KS3	AC	OC
"BJP wins in Gujarat and Modi..."	2	1	0	S-1	RL
"Congress rally in Delhi..."	1	1	0	S-1	RL
"Sandeshkhali votes for TMC..."	1	1	0	S-1	RL
"CPIM's stance on elections..."	1	0	1	S-2	RL
"Kanyashree scheme is a success..."	0	0	1	R-3	J
"SSC Scam affects students..."	0	0	1	R-3	J
"Varanasi gears up for polls..."	0	1	0	R-2	J

KS- Keyword Set;

AC - Algorithm Classi ication;

OC -Our Classi ication;

S-2 -Select in Step 2;

R-2 - Reject in Step 2;

RL - Relevant;

J - Junk

- If Step 1: If count(KS1) ≥ 1, count(KS2) ≥ 1, and count(KS3) = 0, then select as 'S-1'.
- If Step 2: If count(KS1) ≥ 1, count(KS2) ≥ 1, and count(KS3) ≥ 1, then select as 'S-1'.
- If Step 3: If count(KS1) ≥ 1, count(KS2) = 0, and count(KS3) ≥ 1, then select as 'S-2'.
- If Step 4: If count(KS1) ≥ 1, count(KS2) = 0, and count(KS3) = 0, then select as 'R-1'.
- If Step 5: If count(KS1) = 0, count(KS2) ≥ 1, and count(KS3) = 0, then select as 'R-2'.
- If Step 6: If count(KS1) = 0, count(KS2) = 0, and count(KS3) ≥ 1, then select as 'R-3'.

This filtering process ensures that only the most relevant tweets are selected for analysis, while irrelevant or ambiguous data is discarded, thereby enhancing the quality of the dataset.[12]

➢ *Data Preprocessing:*

The Clean and normalize text data by removing boilerplate content, standardizing encoding, and applying tokenization and stop-word removal. [5] Tag articles with metadata including the date published, media source, parties/candidates mentioned, and categories regarding the topic covered -- for example, rally, manifesto, controversy, release of exit poll. [5][6]

Align the temporal dimension of media data with key electoral milestones: phase of campaign, polling days, release of exit poll, and declaration of result. [6]

➢ *Sentiment Analysis:*

Classify the polarity (positive, negative, neutral) of media text segments referencing specific parties or alliances using either a lexicon-based method, or one based on machine learning. [5] Aggregate sentiment scores over time and by unit of analysis, e.g., state-level sentiment toward a particular party in the week of the exit poll publication. [5][6] Optionally, calculate other indicators such as the volatility of sentiment, volume of coverage, and issue-specific sentiment, for example economic issues vs. governance issues. [5]

➢ *Sentiment Score Calculation:*

To capture the aggregated sentiment trend, we define a Sentiment Score (S) using a weighted sum of different sentiment categories:

$$S = w1N + w2P + w3N' + w4N''$$

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Where:

N = Total number of tweets
P = Number of tweets with a positive sentiment
N′ = Number of tweets with a negative sentiment
N″ = Number of tweets with a neutral sentiment
w1, w2, w3, w4 are the weight parameters assigned to each sentiment category.

➢ *Predictive Analysis: Sentiment Score vs. Vote Share:*

To assess the predictive power of sentiment analysis, we investigate the relationship between sentiment scores (S) and vote share (V) of political parties using a linear regression model:

$$V = mS + b$$

Where *m* and *b* are the slope and intercept of the regression line. We use scatter plots to visualize this relationship and fit a trend line to observe the correlation pattern.

➢ *Comparative Evaluation:*

Quantify the accuracy of the exit poll by calculating deviations between projected and actual seat shares or vote shares for each party or alliance, at the level of aggregation chosen. [4][8] Compare these deviations with contemporaneous media sentiment indicators to ascertain various patterns; for example, whether positive sentiment for a party coincides with overestimation or underestimation in exit polls. [5]

Check whether the sentiment measures are statistically associated with the exit-poll errors, using the controls for region and party, through correlation analysis and simple regression models. [5][8]

Develop case studies of particular states or parties where exit polls were notably accurate or inaccurate, and interpret those cases in light of sentiment dynamics and methodological limitations that are known. [3][4]

V. EXPECTED OUTCOMES

The expected outcomes of this project are both empirical findings and methodological insights. Empirically, the analysis will show whether media sentiment is closer to the predictions of exit polls or to the actual election outcome and whether there is a systematic pattern in the direction of the exit poll errors relative to sentiment. [5][8] For instance, it may turn out that for some parties, media sentiment tends to be more optimistic than the electorate, which might cause both indicators of sentiment and exit polls to overestimate their performance. [3][5]

Methodologically, it seeks to show a systematic approach to integrating SA with the assessment of polling data. This structure can then be applied in subsequent elections within various contexts to enable analysts and media outlets to fact-check the exit poll narratives against independent text-based indicators. The findings will be used to study media ethics and regulation by pointing out how coverage of media together with exit polls created misleading expectations versus how it provided an accurate early snapshot of the results.

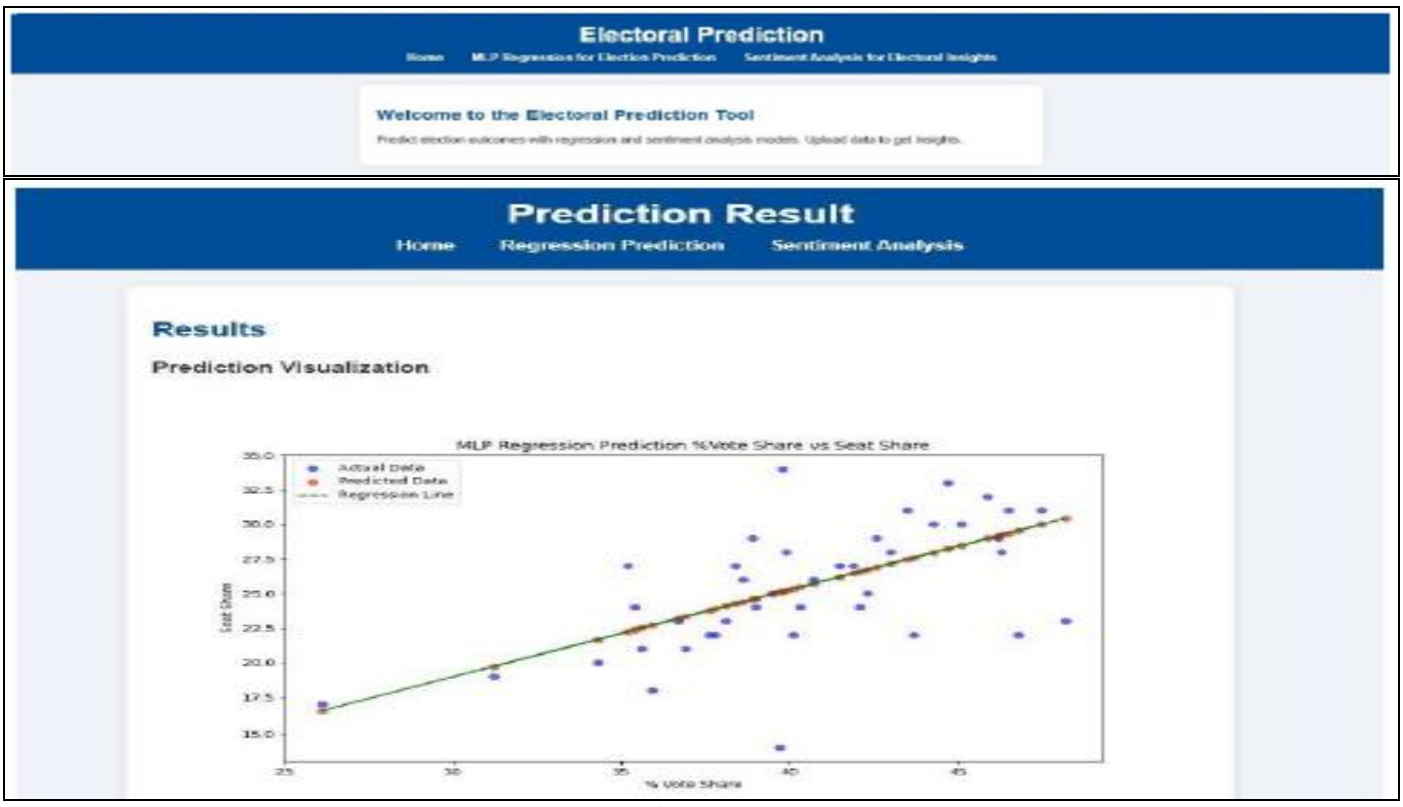

Fig 3 Regression

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VI. CONCLUTION

This work is important because it serves several stakeholders. To media organizations, the research provides empirical grounding for introspection about the use of exit polls and election coverage tone, encouraging more openness regarding uncertainty and potential bias. [1][6] For polling agencies, the analysis may point to new diagnostics using media sentiment as a means of detecting over- or underestimation for individual parties or regions, especially when multiple polls disagree. [3][4]

Such a study will also be useful for election regulators and policymakers while framing guidelines on the publication of exit polls during multi-phased or closely contested elections. [2][9] It would help them understand how sentiment and exit polls combine to shape public expectations and, thus, fine-tune rules balancing free flow of information with the need to prevent misinformation and undue influence on.

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REFERENCES

[1]. Role of media surveys in predicting and shaping the exit poll and opinion polls outcome - https://www.socialsciencejournal.in/assets/archives/2020/vol6issue6/6-6-38-490.pdf
[2]. THANOS: A Predictive Model of Electoral Campaigns Using Twitter Data and Opinion Polls - https://www.tandfonline.com/doi/full/10.1080/26941899.2025.2484180?scroll=top&needAccess=true
[3]. Exit Polling: Elections and the Media Lesson - CT.gov https://portal.ct.gov/media/SOTS/Capitol2011to2015/WhyVotingMatters/SecIV/ExitPollingElectionsandtheMediapdf.pdf
[4]. What are Exit Polls and How are they Conducted? - CivilsDaily https://www.civilsdaily.com/news/what-are-exit-polls-and-how-are-they-conducted/
[5]. Opinion Polls, Exit Polls, Poll of Polls: What makes them different? https://www.indiatoday.in/elections/story/exit-polls-vs-opinion-polls-vs-poll-of-polls-difference-explained-2817537-2025-11-11
[6]. Exit Polls - Drishti IAS https://www.drishtiias.com/daily-updates/daily-news-analysis/exit-polls
[7]. Exit Polls Strategies for Political Campaigns in India https://politicalpartyregistration.co.in/exit-polls-strategies-political-campaigns-india/
[8]. Exit Polls - ACE Electoral Knowledge Network https://aceproject.org/main/english/me/med07c01.htm
[9]. Exit poll - Wikipedia https://en.wikipedia.org/wiki/Exit_poll
[10]. [PDF] WAPOR GUIDELINES FOR EXIT POLLS AND ELECTION https://wapor.org/wp-content/uploads/WAPOR-Guidelines-for-Exit-Polls-and-Election-Forecasts.pdf
[11]. Exit Polls: Role In Electoral System, Analysis, And Regulations https://pwonlyias.com/exit-poll/
[12]. Capturing Significant Information Regarding Election Result Using Twitter Data https://link.springer.com/chapter/10.1007/978-3-032-02790-0_13
[13]. Barber´a, P. “How Social Media Reduces Mass Political Polarization: Evi- dence from Germany, Spain, and the U.S.” American Journal of Political Science, 2015.
[14]. ntscraper: A Python package for scraping Twitter data. Version 0.1.1. Available at: https://pypi.org/project/ntscraper/0.1.1/.
[15]. Jungherr, A. (2016). ”Twitter use in election campaigns: A systematic literature review.” Journal of Information Technology & Politics, 13(1), 72-91.
[16]. Tumasjan, A., Sprenger, T. O., Sandner, P. G., & Welpe, I. M. (2010). ”Pre- dicting elections with Twitter: What 140 characters reveal about political sentiment.” Proceedings of the Fourth International AAAI Conference on Weblogs and Social Media, 178-185.
[17]. O’Connor, B., Balasubramanyan, R., Routledge, B. R., & Smith, N. A. “From Tweets to polls: Linking text sentiment to public opinion time se- ries.” Proceedings of the International AAAI Conference on Weblogs and Social Media, 122-129, 2010.
[18]. Barber´a, P., & Rivero, G. “Understanding the political representativeness of Twitter users.” Social Science Computer Review, 33(6), 712-729, 2015.
[19]. Mohammad, S., Kiritchenko, S., & Zhu, X. “NRC-Canada: Building the state-of-the-art in sentiment analysis of tweets.” Proceedings of the Interna- tional Workshop on Semantic Evaluation (SemEval-2013), 321-327, 2013.
[20]. Ferrara, E., Varol, O., Davis, C., Menczer, F., & Flammini, A. “The rise of social bots.” Communications of the ACM, 59(7), 96-104, 2016.