

Study of Acceptance of Indian Political Cartoons in Facebook Landscape



Prasun Chakraborty, Anirban Chowdhury

Abstract: Indian society changed after digitalization and economical reformation. Currently, the Facebook is the most popular social media in India. The political cartoonist took that platform as an opportunity to share their thoughts and raise socio-political issues through their cartoons. The aim of the paper is to study responses (likingness and affective) to political cartoons in respect to responsiveness towards cartoons, gender, and socio-economic status. The study was conducted among 875 Indians from different parts of India including males and females with various socio-economic backgrounds. The data captured in the form of sentiments (love, sadness, angry and happiness emotions) for each cartoon shared in the Facebook timeline. Then, relevant descriptive statistics were computed using IBM SPSS 20.0 software. Results showed that maximum Facebook users expressed their thoughts about political cartoons through emoticons in terms of like, sad, angry, and happiness. It is found that male user are more likely to be expressive to political cartoons than female user. Mostly user from low and middle socio-economic backgrounds relate themselves with the cartoon scenarios and shown interest than users from higher class of the society. Hence, political socio-political scenarios can be communicated effectively using political cartoons in Facebook as the people of India are relating themselves with various cartoons.

Keywords: Political Cartoon, Indian Social media, Social Impact, Facebook

I. INTRODUCTION

India is always blessed with a countless number of talented and flourishing cartoonists. They are known for creating political awareness, a sense of satire, and their original draftsmanship. They typically combine artistic skills, concepts, and satire in order to question authority. Also, political cartoonists try to draw an attention on political violence, corruption, and other illnesses of the society. A good political cartoonist not only makes the target audience think about current events but also attempts to narrate their opinion from the cartoonist's point of view. [1, 2, 3, 4, 5, 6] In this context, it is necessary to highlight that the political cartoons are basically satirical depictions of a situation or political issue or event.

It is a visual medium that engages the audience and helps them understand and interpret the political, social, and economic scenarios in the country and the world. [7, 8, 9, 10]

Additionally, the influence of the social media on political participation has been studied extensively in the all countries and especially in India. According to research, it shows that during 2022-2023, the number of Facebook users in India is expected to reach about 444.2 million, up from 281 million in 2018 indicating a steady growth in the social media platform's user base. [11, 20, 21] In today's world, ideo-political impact shows the way how consumer handling or reacting in social media. The impact of the Facebook is quite huge in our society. [6] It is determining the political participation and voting behavior have been studies form different perspectives such as usage and accessibility of Facebook. The Facebook is a one of biggest source of political understanding, and the social media is now acting as a platform for political participation. [4] Gradually after internet, the digital revolution is happening in India. People from different socioeconomic status, age, language are actively participating in that platform and be part of Facebook family. The social media became a strong platform because of simple and soothing interface common people in India easy to attract that platform. Facebook became platform where people easy to access and easy to visit and comment and share their thought, ideology and personal photo and video. Now a days it is not only personal its became commercial page where common people easy to build their page and earn from their product. In a research, it is found that average Indian (young, adult) both spend almost 3.2 hours per day in Facebook. [2] Today's all young cartoonist took that opportunity to use that platform to publish his or her cartoon, which is easier and flaw less free. Indian cartoonists like Satish Acharya, Munjul, Uday Deb all are very popular in Facebook for their political cartoons. Political Cartoon plays very active role in political campaign as in case of Mexico political campaign. [11] It helps to campaign either in favour or against of political party either they in or in the opposition. Facebook, as a medium for all the sections of the society can access and participate freely. However, other people argues that it will have a strong potential for expanding online political participation. Youth in India plays very vital role in that, India has 356 million young people as the country of world's largest youth population. [11, 20, 21]

Facebook one of the best medium to capture reaction of people. Han and Que (2012) have analyzed the words related to positive and negative affective states.

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They found relationship with network size and density. [22] This research also identified the inverse relationship between duration of Facebook uses and sharing of affective responses. Usage of informal language and shortcut emotion rapidly increasing very fast in today’s social networking site. Through, the graphical icon such as emoticon helps to express and analyze the sentiment of social media user. [4, 23]

After several studies, it found that social media helps in political campaigning. Many scholar found the impactful evidence of social network ; however, the use and miss use both are debatable .Its changing voting decisions, by influencing candidates’ perception or political information efficacy. The sentiment analyzing build path social media technology and voter During local state campaigning in Maxico it was observed that Facebook emotion and emoticon study play vital role. [11]

Based on the above literature review, the aim of this paper is the understanding of acceptance of Political cartoon through like and emotions (sentiments) study in social media platform (Facebook). To achieve the aim, following objectives were considered –

1. To study likingness and emotional responses to political cartoons
2. To understand the status of each cartoon based on view, love, and likes data captured from Facebook
3. Influence of cartoon responsiveness, gender, and socio economic status on likingness of political cartoon

II. METHODOLOGY

A. Target population

A total number of participants responded for various cartoons is 875 (all are Indian). Among them 77.35% male and 22.65% female. Their age ranges from 22-50 years. The participant was among different cities of India like Kolkata, Mumbai, Dehradun , Delhi, Chennai and their Socio economic status ranging from INR 5 lakhs -15 lakhs per annum (except student).

B. Illustration of Political Cartoon

All cartons shared in Facebook for this study is depicted in **Fig.1**. The author illustrated the cartoons considered in this study. The Cartoon 01 narrate the socio political chaos during Indian state election 2021. False promises of ruling Government vs exact situation were illustrate in the cartoon 02 through realistic way. The self-sufficiency and failure of Government shows in satire way through the cartoon 03. The procession of ruling political party on the death body of common people during COVID period. The cartoon 05 shows fighting of two heavy weight politician during election campaigning. During that time situation of common people, narrate through the cartoon 06. Again, the cartoon 03 shows the political drama. The cartoon 08 shows the international political situation. The cartoon 09 shows global impact of COVID-19, and cartoon 10 shows the Indian politician and common peoples fight against COVID-19. All the cartoons were shared and studied over period of 1 year (April 2020 to Mar 2021).



Fig. 1. Cartoons which are selected for this study.

C. Measurement of acceptance and emotional responses

The data for acceptance and emotional responses have been captured in the form responses of Indian audiences using like, love, sad, angry and happy emotions for each cartoons shared in Facebook timeline.

D. Study of associations between various factors for likingness of political cartoons

Chi-square test of association along with like-hood ratio

was computed using IBM SPSS 20.0 software. Odds ratio was also calculated for various factors (level of responsiveness toward the cartoon, socio-economic status and gender) to check the strength of associations.



III. RESULT AND DISCUSSION

A. Status of likingness and emotional responses

Asper Facebook data, it is observed that the number of total likes is highest in Cartoon 09 score 133(15.20%) and the total lowest in Cartoon 07 score 45(5.14%) (Refer **Table-I**). This kind of result might be due to the message and element conveyed through composition of different cartoons. Any political cartoon is a kind of comedy about the political impact of society, and society is reacting to that particular situation. That is why time, place, and impact are very important in political cartoon. The cartoon 09 was able to gain high popularity because of the pandemic situation where the whole world is infected. Through one political leader flying kissing posture and of spreading COVID virus an element situation was narrated highly accepted by the audience. The layout was very simple, and the background color of the composition was very bright in cartoon 09. It is easy to capture the audience and indicate specific color of political party. Individual study of different cartoons and the

characteristic number of highest love gained by Cartoon-10 and the lowest love gained by Cartoon 05. As mentioned, political cartoons are very much based on the message, which is conveyed through both cartoons 10 and 5. The cartoon 10 is spreading a very positive message, where it shows all political leaders in India forgetting their different ideological started fighting together against the Corona Virus. Therefore, it has proved through data most they would love to see leaders of different political party together when resolving any national level issued. This particular pandemic time and situation needs to be united effort rather than criticizing each other, which shows through cartoon 10. Almost in different situation and message convey through cartoon 05 got lowest love where its depict fighting with each other It is very rare that all cartoons convey all emotions, like angry love or sadness, because the story which they narrate is not necessary to convey all extreme emotions. Through data analysis, we found that only two cartoons were able to generate the emotion of sadness.

Table- I: Likes and emotional responses to political cartoons.

| Cartoon No | n (%) | Like (%) | Love (%) | Sad (%) | Angry (%) | Happy (%) |
|------------|------------|------------|-----------|-----------|-----------|------------|
| 1 | 90 (10.29) | 66(73.33) | 14(15.56) | 0(0) | 0(0) | 10(11.11) |
| 2 | 61(6.97) | 34(55.74) | 10(16.39) | 24(39.34) | 3(4.918) | 0(0) |
| 3 | 131(14.97) | 87(66.41) | 19(14.50) | 16(12.21) | 0(0) | 0(0) |
| 4 | 81(9.26) | 56(69.14) | 13(16.05) | 0(0) | 0(0) | 12(14.82) |
| 5 | 48(5.49) | 29(60.42) | 4(8.33) | 0(0) | 0(0) | 15(31.25) |
| 6 | 68(7.77) | 48(70.59) | 19(27.94) | 0(0) | 0(0) | 1(1.47) |
| 7 | 45(5.14) | 38(84.44) | 7(15.56) | 0(0) | 0(0) | 0(0) |
| 8 | 95(10.86) | 65(68.42) | 20(21.05) | 0(0) | 0(0) | 10(10.530) |
| 9 | 133(15.20) | 112(84.21) | 10(7.52) | 0(0) | 1(0.75) | 10(7.520) |
| 10 | 123(14.06) | 102(82.93) | 21(17.07) | 0(0) | 0(0) | 0(0) |

Total number of participants (N) = 875; n = Number of participants responded for individual cartoons.

As compared to Cartoon 02 and Cartoon 03, which both convey sad emotions. Cartoon 02 is higher because it directly narrates the story of the cremation center place where people are dying and the graphics on the wall are Ache Din, which was promised by the ruling party. Cartoon 03, where the characters represent the Indian common people, holds an empty photo frame and their own Asthi, is Atmanirbhar (self-dependent). The common person in India caries for his own ash and all because they know that, even after death, they not able to get support from the government. As compared to other emotions like anger, here anger means people react angry at the system. Here, cartoon 2 is able to narrate the situation in which people react with their most angry emotions compared to cartoon 09, which is a lot less dramatic. The cartoon 09 also narrates the situation of the helpless world against a particular country, China. Compared with other emotions, humor, which is a core component of political cartoons. Humor only generates laughter and happiness. Once, R. K. Laxman (Legend Political Cartoonist of India) said in an interview that it is a more vital emotion that only humans have among all animals. [8, 9, 10] The statistical data analysis shows cartoons 01, 04, 05, 06, 08 and 09 are able to create a smile on the faces of the audience. The Cartoon 05, a comical way of presenting the fight between two heavy weight political characters, is able to capture the humor, which the audience expresses through their highest

happiness. The ‘Cartoon 06’, which tries to capture the situation of ordinary people in an indirect way, captures the lowest humor/or happiness. Both ‘Cartoon 05’ and Cartoon 06 are very interesting. These two cartoons were drawn during the time of the Bengal election. One is a direct interpretation through two heavyweight political leaders; the other is an indirect interpretation.

B. Resolutions from perceptual plots

A perceptual plot has been prepared based on no of view and love there are four quadrant in this plot. These four quadrants have different meaning which are described as follows-

1st Quadrant = low view and low love zone (least preference zone)

2nd Quadrant = High view and low love zone (See **Fig. 2**)

3rd Quadrant = High view and high love zone (most preference zone)

4th Quadrant = low view and high love zone (See **Fig. 2**).

Therefore, the political cartoons, which are in first quadrant, are least preferred cartoons and most preferred cartoons falls under the third quadrant.



According to this study, cartoons 05, 02, 06, 07 and 04 are less preferred cartoon; and, cartoon 09, 10, 03, 08 and 01 are highly preferred cartoons. Among all these cartoons, cartoon 09 is most preferred cartoon and cartoon 05 is least preferred cartoon (Refer Fig. 2.).

Another perceptual plotting has prepared and the plot is based on no of view and like there are four quadrants in this plot. These four quadrants have different meaning which are described as follows-

1st Quadrant = low view and low like zone (least preference zone) (See Fig. 3.).

2nd Quadrant = High view and low like zone

3rd Quadrant = High view and high like zone (most preference zone) (See Fig. 3.).

4th Quadrant = low view and high like zone

Hence, the political cartoons, which are in first quadrant, are least preferred cartoons and most preferred cartoons falls under the third quadrant. According to this study, cartoons 05, 07, 02, and 04 are less preferred cartoon; and, cartoon 10, 03 and 08 are highly preferred cartoons. Among all these cartoons, cartoon 10 is most preferred cartoon and cartoon 05 is least preferred cartoon (Refer Fig. 3.).

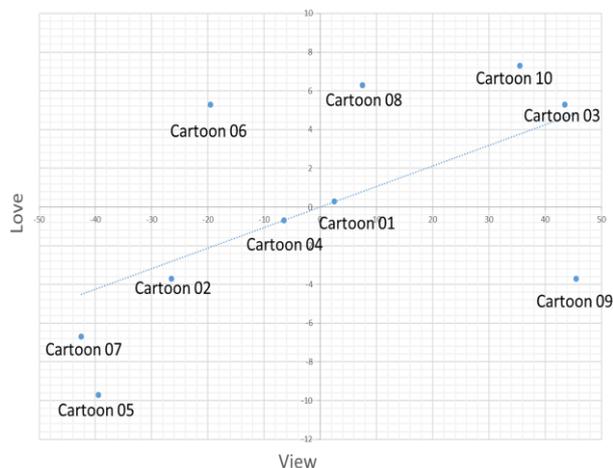


Fig. 2. Perceptual plot based on love ratings and number of views.

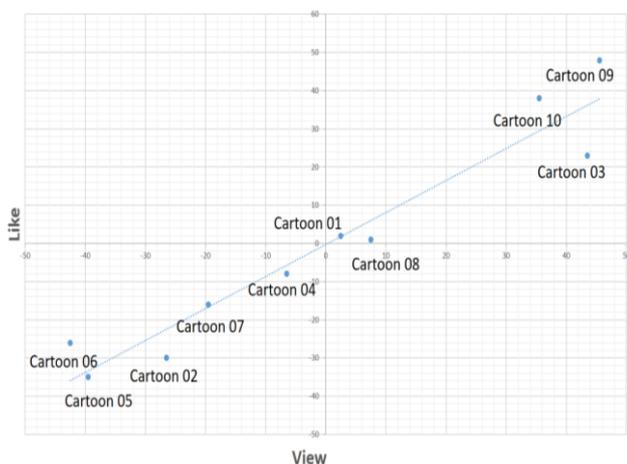


Fig. 3. Perceptual plot based on number of likes and number of views.

C. Influence of cartoon responsiveness, gender and socio-economic status on likingness of political cartoons

There is a significant association observed between like of Political cartoon and cartoon type (low responsive vs. high responsive) of Indian audience [$\chi^2(1) = 11.124, p=0.000852, \eta = 0.18$]. There is a significant association observed between like of Political cartoon and gender (female v. male) of Indian audience [$\chi^2(1) = 190.299, p=0.000001, \eta = 0.77$]. There is a significant association observed between like of Political cartoon and socioeconomic status (low: INR < 5 lacs vs. high: > 5 lacs) of Indian audience [$\chi^2(1) = 34.303, p=0.000001, \eta = 0.24$].

In this study, the influence of three parameters were observed through chi-square test of association. These three parameters are cartoon responsiveness (is defined as level of sensitiveness towards a composition of a cartoon), gender (female vs male), and socio economic status (income below vs above INR 10 LPA). The odds ratio was calculated for these three factors to check the level of impact on acceptance of political cartoon. Odds ratio was highest for gender (OR = 86.949, % like = 74.3, refer Table-II) which means gender has the highest impact on likingness of political cartoons and males are more liking political cartoons than females [14]. This kind of result indicates that females are taking less interest on politics during use of Facebook .The level of cartoon responsiveness (OR =2.476, % like = 59.4, refer Table-II) had secondary impact on political cartoons likingness. This kind of findings due to various composition in respect to political event. The message through composition 5 and 2 both stands negative the cartoon 2 composition based on situation of death happened in Uttar Pradesh (state in India) where massive death happened during second wave of COVID 19. The cartoon 5 also narrate satire way the political fight between two heavy weight leader Prime Minister vs Chief minister of West Bengal ,during West Bengal election 2021.Through online analysis of research it’s found that both of cartoons (2 & 5) get very less acceptance by the audience .

Table-II. Factor associated with liking ness of Political Cartoon.

| Independent factor (S) | % Like | Odds ratio (Range at 95% CI) | p-Value |
|---|--------|------------------------------|----------|
| Cartoon responsiveness (Ref. Low) High | 59.4 | 2.476(1.462-4.195) | 0.000852 |
| Gender (Ref. Female) Male | 74.3 | 86.949(39.144-193.14) | 0.000001 |
| Socio economic status (Ref. High) Low | 61.0 | 1.299(1.219-1.383) | 0.000001 |

Total number participant (N) = 362. * Data of two low responsive cartoons (cartoon 02 and cartoon 07) and two high responsive cartoons (cartoon 09 and cartoon 10) were considered for computed data presented in this table.



According to the study, responsiveness in Facebook platform the cartoon 9 and 10 are highly accepted by viewer, because of their composition concept and their message convey. The socio-economic status of Indian audience also had significant influence (OR = 1.299, % like = 61.0, refer **Table-II**) on likingness of political cartoons at tertiary level. The result showed that the people those have income bellow INR 10 lakhs per annum (LPA) are more liking political cartoons than the people having income above INR10 LPA. This is because the middle class Indians are effected (both negative and positive) during various impactful political decision (as related political cartoons were shared immediately after these political events).

IV. CONCLUSION APPLICABILITY OF RESULT, LIMITATION OF THE STUDY AN FUTURE SCOPE

Political cartoon play important role to convey social crisis through social media platform like Facebook. In this study, it is observed that people are very responsive to various political cartoon because they relate themselves as it help them to express their emotion through different political cartoon. Therefore, in Indian context it is possible to conduct socio-political campaign through the social media and influence the target population. Through this study, it was found how gender and economic background plays impactful role during acceptance of Political Cartoon.

There are three important factors influencing the responses of Indians towards political cartoons are - responsiveness (sensitiveness), gender and socio economic status of target population. It is found that the Indian males are more proactively responses to shared political cartoons in Facebook. Indians who are sensitive towards cartoons are kin to express their emotions for political cartoons when shared in Facebook. Most of the population (from low and middle class background) are kin to response to the shared political cartoons in Facebook. Sandoval-Almazan and Valle-Cruz (2018), found similar evidence during Mexico government election, where emotion and emoticon played very impactful role. [11] Therefore, it is possible to influence these Indian populations and the socio-political campaign might be effective using political cartoons in social media like Facebook. Although, like other research works, this research also has limitation. In this study, the Facebook was considered as social media for collecting user sentiments related responses, which can also be collected from other social media like Instagram, Twitter, and LinkedIn etc.

REFERENCES

- 1 J. J. Johnson, *Latin America in caricature*. University of Texas Press; (1993) Mar 1Hoxie FE. Talking back to civilization: Indian voices from the progressive era. Bedford/St. Martins; (2001).
- 2 M. M. Lawate, *Importance of political cartoons to newspapers*. Diss. Christ Univer-sity, (2012).
- 3 D. M. Bostdorff, "Making light of James Watt: A Burkean approach to the form and attitude of political cartoons". *Q. J. Speech*, 73(1) (1987), 43-59.
- 4 A. Oleszkiewicz, M. Karwowski , K. Pisanski , Sorokowski , B. Sobrado, A. Sorokowska, Who uses emoticons? Data from 86 702 Facebook users. *Pers Indiv Differ*, 2017 Dec, 119, 289-95.
- 5 M. Lacity, P.S. Rudramuniyaiah, "Funny business: public opinion of outsourcing and offshoring as reflected in US and Indian political cartoons." *Communications of the Association for Information Systems*, 2009 Jan, 24(1):13.
- 6 C Robertson. TRICKSTER IN THE PRESS: Kainai editorial cartoonist Everett Soop's framing of Canada's 1969 White Paper events. *Media History*. 2008 Apr, 14(1),73-93.

- 7 A.S. Wohl, "Ben JuJu": Representations of Disraeli's Jewishness in the victorian political cartoon." *Històry- a yèhùdît= Jewish history*, 1996 Sep, 10(2), 89-134.
- 8 R.K. Laxman. Freedom to cartoon, freedom to speak. *Daedalus*. 1989 Oct 1;118(4),68.
- 9 S. Chatterjee, Cartooning democracy: The images of RK Laxman. *PS: Political Science & Politics*. 2007 Apr , 40(2) ,303-6.
- 10 H. A. Goswami, *Historical Overview on Political Cartooning in India with special reference to Assam*.
- 11 R Sandoval-Almazan, D Valle-Cruz."Facebook impact and sentiment analysis on political campaigns". *InProceedings of the 19th Annual International Conference on Digital Government Research: Governance in the Data Age 2018 May* (pp. 1-7).
- 12 D. Bhattacharya "Caricature in Print Media" *A Historical Study of Political Cartoons in Colonial India (1872-1947)*.
- 13 M.G. Müller, E Özcan, O Seizov. Dangerous depictions: "A visual case study of contemporary cartoon controversies". *Popular Communication*. 2009 Jan 15,7(1),28-39.
- 14 A Aghazamani. "How do university students spend their time on Facebook?" *An exploratory study. Journal of American science*. 2010 Feb , 6(12),730-5.
- 15 E. Feteris, L.Groarke, J.Plug "Strategic Maneuvering with Visual Arguments in Political Cartoon". *Keeping in touch with Pragma-Dialectics*. 2011,59-74.
- 16 N.M.Dugalich. "Political cartoon as a genre of political" *discourse. RUDN Journal of Language Studies, Semiotics and Semantics*. 2018 Dec ,9 (1),158-72.
- 17 N.G.Howe. *Statesmen in Caricature: The Great Rivalry of Fox and Pitt the Younger in the Age of the Political Cartoon*. Bloomsbury Publishing, 2019 .
- 18 D.Keane , "Cartoon violence and freedom of expression". *Hum. Rts. Q.* 2008,30,845.
- 19 J. Klausen ,*The cartoons that shook the world*. Yale University Press, 2009.
- 20 S. Keelery (Aug 17, 2021). Number of Facebook users in India from 2017 to 2020, with estimates until 2040. Available: <https://www.statista.com/statistics/304827/number-of-facebook-users-in-india/>
- 21 IANS, New Delhi (August 14, 2020). Available: <https://www.indiatvnews.com/technology/news-facebook-users-overestimate-time-spent-on-facebook-642010>
- 22 L. Han, L. Qiu, "Sharing emotion on Facebook: network size, density, and individual motivation." *CHI'12 Extended Abstracts on Human Factors in Computing Systems*, 2012. 2573-2578.
- 23 F. Krebs, B. Lubascher, T. Moers, P. Schaap, G. Spanakis, "Social emotion mining techniques for Facebook posts reaction prediction." *arXiv preprint arXiv:1712.03249* (2017).

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