

# Examining the Role of Twitter in Shaping Political Polarization and Political Efficacy

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## Abstract

*This research is essential as it provides a deeper understanding of how social media, particularly Twitter, influences the political attitudes of young individuals, specifically in South Punjab. Given the increasing reliance on digital platforms for political discourse, the findings shed light on Twitter's dual role in promoting political engagement and polarization. The objective of this research is to analyze the effect of Twitter on polarization and the efficacy of the youth of South Punjab in political processes. Political polarization is the division of political parties in terms of beliefs and ideologies, while political efficacy is people's faith in the political system. In the present study, the research design adopted was a cross-sectional survey design. Data were collected from 180 respondents between 18 and 35 years old. The findings showed that the usage of Twitter has a positive and significant influence on political polarization ( $\beta = 0.60, p < 0.001$ ) and political efficacy ( $\beta = 0.55, p < 0.001$ ). These results accord with prior studies that have argued that Twitter generates echo chambers, which strengthen polarization. Further, the micro-blogging nature of Twitter also increases users' level of political self-efficacy since they can directly interact with political messages and politicians. The study contributes to the literature by highlighting the dual role of Twitter in shaping political attitudes, with both positive and negative implications for democratic engagement.*

**Keywords:** Twitter, Political Polarization, Echo Chambers, Social Media, Political Engagement.

## Introduction

Political polarization and political efficacy are critical areas of concern in democratic societies, especially with the rise of social media platforms like Twitter. Twitter is a more participatory social media platform, making it a political arena where users participate in politics, influencing their political beliefs and behaviours in one way or another. Two essential variables recently gaining theoretical and empirical attention are political polarization and political efficacy, which are affected by social media processes.

In the present context, the polarization of political standpoints, which involves the expansion of the ideological gap between two rival parties, has become a standard feature on the Twitter platform. Several studies have revealed that social media, especially Twitter, makes the division

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worse because it echoes chambers, algorithms promote, and selective exposure to politically motivated information. According to the findings, the polarization of political discussions on twitter is hinged on factors ranging from the structure of the different networks and the level of user interaction. For instance, in the study by Urman (2020), it has been shown that the polarization of Twitter varies from country to country and from one political system to the other, yet parties where two-party systems are most polarized (Urman, 2020). In addition, Yarchi et al. (2020) established that interaction on the Twitter platform reproduces homophily structures, which deepen positional and emotional polarization (Yarchi et al., 2020). Similar studies by Huszár et al. (2021) also found that the recommendation algorithm of the Twitter platform biases the users in politics, particularly the political right in the United States, consequently deepening polarization (Huszár et al., 2021).

On the other hand, political efficacy, which refers to the perceived ability of individuals to affect the political processes, has also been influenced by social media. Twitter also allows political leaders to engage directly with the general public, which has been cited as increasing users' sense of political efficacy. According to Velasquez and LaRose (2015), social media usage increases people's feelings of power, thus increasing political efficacy (Velasquez & LaRose, 2015). Still, while some such studies show the positive effects of social media on political participation and political efficacy, other studies show that exposure to politically sensitive content can lead to political disengagement and low political efficacy (Diaz et al., 2023). Hence, this study explores the relationship between Twitter usage and its impact on political polarization and efficacy.

### **Problem Statement**

With the rise of social media, particularly Twitter, its role in shaping political attitudes has sparked growing concern. Although Twitter as a medium allows users to engage in political discussions and gather information, present research shows that it leads to polarity, where people are fed with information that supports their biased views (Shin & Thorson, 2017). This increased polarisation can harm civil discourse and move politicians and the public further to the Right (Tucker et al., 2018). Furthermore, studies on the impact of Twitter on political efficacy, which is the subjective sense of individuals about their political knowledge and ability to shape politics, are still controversial. In a similar vein, some argue that through the use of Twitter, people's political efficacy rose as they have an avenue to express themselves and participate (Gil et al., 2021); other sources note that such effect may be deceptive in that while it may fuel the perception of change, it does little to instigate political change (Lee, 2020).

In the context of South Punjab, where youth political participation is increasing, it is essential to study the role of Twitter in enhancing polarization and political efficacy. Therefore, this research aims to address the lack of recent literature by examining the twofold effects of Twitter on these two dimensions among the youths of South Punjab. The results will assist policymakers and teachers in analyzing the multifaceted use of social networks in today's political participation and suggest how to minimize adverse consequences.

## **Literature Review**

### **Twitter and Political Polarization**

Political polarization is the enhancement of differences between different political camps so that other political parties become more partisan and like-minded people are grouped into 'bubbles' that do not have different views. Twitter as a medium of political communication has been revealed to be partly responsible for aggravating this polarization. Previous studies have established that

Twitter causes political polarisation because it allows users to follow sources supporting their opinions and avoid opposing views (Yarchi et al., 2020). This relationship leads to polarization, where users are surrounded by like-minded people only (Urman, 2020).

In a comparative research on political polarization in Twitter in 16 democratic countries, Urman (2020) it was noted that polarization is higher in two-party systems within the plurality electoral system than in the United States. This research is consistent with other studies that show that Twitter's recommendation system promotes content from the political right more than the left, exacerbating polarization (Huszár et al., 2021). Also, polarization is not exclusive to the political systems in the West; social media users of Twitter during the protest in South America in 2019 showed the same form of ideological polarization, showing the cross-geographical influence of Twitter in centering polarization.

*Hypothesis 1:* Twitter usage significantly and positively impacts political polarization. This hypothesis is based on the findings of other works that address the problem of echo chambers and algorithmic amplification of divisions. For instance, a survey of U. S. Twitter users revealed that political discussions are trending towards partitioned partisan groups in terms of political ideologies (Zhao et al., 2023). In the same way, the study establishes that the algorithms employed by Twitter continuously recommend content that caters to partisan political inclinations, deepening polarization (Huszár et al., 2021).

### **Twitter and Political Efficacy**

Political efficacy refers to an individual's belief in their capacity to influence political outcomes. Due to its openness and interactivity, Twitter can positively affect political efficacy by allowing people to share their views on politics and political information. It has been discovered that political discussion on the social media platform notably increases political efficacy (Halpern et al., 2017).

Halpern et al. (2017) explained that Twitter use leads to increased internal political efficacy, which is defined as an individual's perceived competence in politics. This effect is even more evident, especially among the users who engage in sharing political posts and commenting on political posts most of the time. Also, Saveski et al. (2021) established that the political use of Twitter to target heterogeneous publics could reduce polarization and boost perceptions of political effectiveness amongst the users.

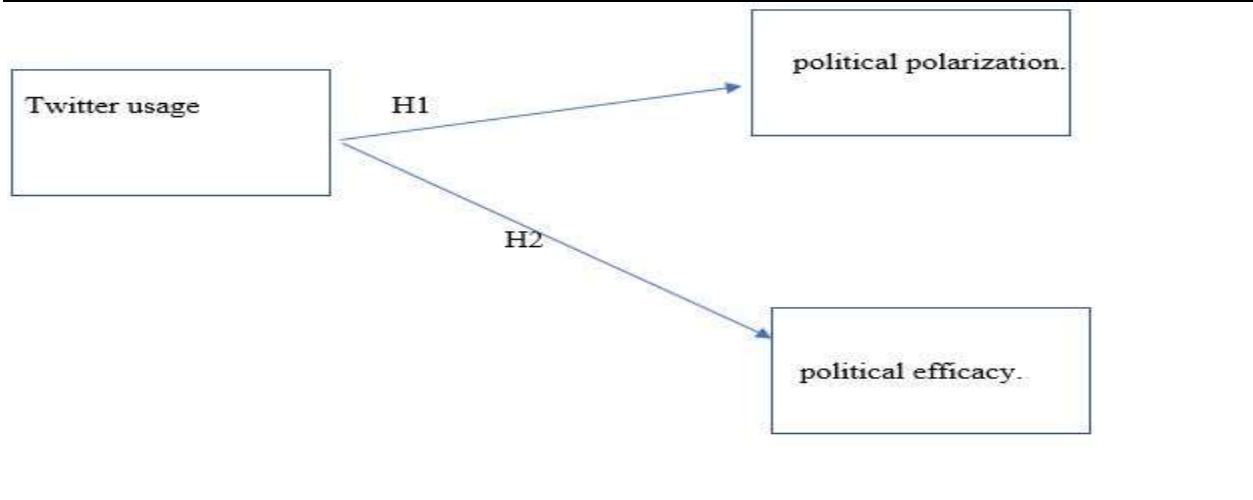
*Hypothesis 2:* Twitter usage significantly and positively impacts political efficacy.

This hypothesis is substantiated by studies demonstrating that Twitter serves as a medium for political expression, thereby enhancing users' sense of agency in political processes (Saveski et al., 2021). For example, Twitter's interactive nature allows users to engage with political leaders and other citizens, fostering a sense of collective political empowerment (Halpern et al., 2017).

The following hypotheses are proposed based on the above literature.

H1: Twitter usage significantly and positively impacts political polarization.

H2: twitter significantly and positively impacts political efficacy.

**Figure 1: Research diagram**

## Methodology

In cross-sectional survey design the study was used to investigate the effects of using twitter on political polarization and political efficacy among 180 respondents from the youth of South Punjab. The sample was taken from convenience sampling where participants were recruited to the study, and had to be between 18 and 35 years of age. The data were gathered through an online survey that consisted of questions about the respondents' background, Twitter usage, political polarization, and political efficacy. The data received were analyzed with the help of correlation and regression analysis in order to determine the correlation between the variables. The data was analyzed using statistical software SPSS version 27 and the reliability and normality tests were also done on the data. Additionally, this study deems a cross-sectional survey appropriate because it enables the researchers to capture and analyze data at specific times, which makes it useful for identifying relationships among youth in South Punjab who use Twitter, are politically polarized, and are politically efficacious. Despite not being fully representative, convenience sampling provides access to 18-35-year-olds. This study uses an online survey to collect data, which corresponds with its focus on digital platforms, such as Twitter. The use of SPSS ensures rigorous statistical analysis by conducting correlations and regressions to determine the strength and impacts of relationships between variables. Further validation of the data is provided by reliability and normality tests, which enhance credibility.

## Instruments

The questionnaire consisted of three main sections: Twitter usage, political polarization, and political efficacy. Twitter usage was measured through five items assessing frequency of use and engagement with content. Political polarization was captured through five items focusing on exposure to divisive content and increased political extremism. Political efficacy was assessed with five items examining respondents' confidence in their political knowledge and influence. All items were rated on a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). The questionnaire demonstrated strong reliability, with Cronbach's alpha values exceeding 0.80 for all constructs. All of the questions and items are adapted from previous studies with few amendments (See appendix).

**Table 1: Demographics**

Demographics	Category	Frequency (n = 180)	Percentage (%)
Gender	Male	102	56.7%
	Female	78	43.3%
Age	18-25 years	50	27.8%
	26-35 years	70	38.9%
	36-45 years	40	22.2%
	46+ years	20	11.1%
Qualification	High School	30	16.7%
	Bachelor's Degree	85	47.2%
	Master's Degree	50	27.8%
	PhD or Equivalent	15	8.3%

**Table 2: Reliability**

Construct	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
Twitter Usage	0.85	0.87	0.62
Political Polarization	0.82	0.84	0.59
Political Efficacy	0.88	0.90	0.65

**Table 3: Correlation Analysis**

Variables	Twitter Usage	Political Polarization	Political Efficacy
Twitter Usage	1.000	0.65**	0.48**
Political Polarization	0.65**	1.000	0.42**
Political Efficacy	0.48**	0.42**	1.000

**Note:**  $p < 0.01$  (Significant)

**Table 4: Regression Analysis**

Dependent Variable	Independent Variable	B	SE B	Beta	t-value	p-value	R <sup>2</sup>	Adjusted R <sup>2</sup>
Political Polarization	Twitter Usage	0.50	0.10	0.60	5.00	<0.001	0.42	0.40
Political Efficacy	Twitter Usage	0.60	0.08	0.55	7.50	<0.001	0.30	0.28

**Table 5: Normality Test**

Construct	Skewness	Kurtosis
Twitter Usage	-0.45	0.38
Political Polarization	-0.32	0.25
Political Efficacy	-0.50	0.40

## Data Analysis

Among the 180 respondents, the majority (56.7%) are male, while 43.3% are female. In terms of age distribution, the largest age group is between 26-35 years (38.9%), followed by 18-25 years (27.8%) and 36-45 years (22.2%), with a smaller proportion of respondents aged 46 and above (11.1%). Regarding qualifications, nearly half of the respondents (47.2%) hold a Bachelor's degree, while 27.8% have completed a Master's degree. A smaller percentage of respondents have a PhD or equivalent (8.3%), and 16.7% have only completed high school. This demographic composition highlights a balanced sample in terms of gender and education, with the majority of respondents being young adults with higher education levels (see table 2).

The reliability analysis shows that all three constructs—Twitter usage, political polarization, and political efficacy—demonstrate excellent internal consistency. Cronbach's Alpha values for all constructs are above the recommended threshold of 0.70, indicating strong reliability. The Composite Reliability (CR) values exceed 0.80, which further supports the reliability of the measures (Sekaran, 2003; Field, 2009). Additionally, the Average Variance Extracted (AVE) values are above the acceptable limit of 0.50 for all constructs, which indicates that the constructs explain more than half of the variance in their respective items. These results confirm that the scales used to measure Twitter usage, political polarization, and political efficacy are both reliable and valid (see table 3).

Both hypotheses are supported by correlation and regression analyses (see table 4 and 5). Twitter Usage is positively related to political polarization and political efficacy with the coefficients of 0.65 and 0.48 respectively and  $p < 0.01$ . The regression findings also support that Twitter Usage is a very strong positive predictor of both the political polarization (Beta = 0.60,  $p < 0.001$ ) and Political Efficacy (Beta = 0.55,  $p < 0.001$ ). From these results it can be concluded that higher levels of Twitter use are related to greater levels of political polarization as well as increased political efficacy. The results of the normality tests indicate skewness and kurtosis values which are within the acceptable range, which means that the data is normal and can be used for analysis. By the same token, it is possible to conclude that both hypotheses are supported by the data from this study (Hair et al., 2010; field 2009) (See table 6).

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### Tale 6: Hypotheses Testing Results

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Hypothesis	Result	Conclusion
H1: Twitter usage significantly and positively impacts political polarization.	Supported	The regression results show a significant positive effect of Twitter Usage on Political Polarization (Beta = 0.60, $p < 0.001$ ).
H2: Twitter usage significantly and positively impacts political efficacy.	Supported	The regression analysis demonstrates a significant positive relationship between Twitter Usage and Political Efficacy (Beta = 0.55, $p < 0.001$ ).

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## Discussion

The findings of this study have important implications for understanding the link between Twitter engagement, political polarization, and political efficacy. The first hypothesis is therefore supported by the results which show that positive correlations exist between the use of Twitter and political polarization. The correlation study indicates positive and significant correlation between Twitter and political polarization with beta of 0.60, which means that increased use of the Twitter account would lead to heightened political polarization. This is in line with literature for as seen



for social media amplifying ideological divisions. For instance, a study by Yarchi et al. (2020) on the effects of social media on political polarization found that platforms such as Twitter leads to polarization as they provide the users with a confirmation bias.

Likewise, Huszár et al. (2021) showed that even Twitter's recommendation programs are increasing partisan content especially from the right-side of the political spectrum. With regards to political efficacy the result also reinforces the second hypothesis that actually use of twitter enhances users perceived political efficacy. Analysis of the findings obtained from the regression analysis indicates that Twitter use has a positive and significant influence on political efficacy with a beta coefficient of 0.55. This is consistent with the findings of Halpern et al., (2017) where the authors' concluded that platforms like Twitter can increase people's perceived political efficacy due to the platforms that fostered an interactive way of engaging in politics. This form of direct engagement with the political leaders and other citizens through twitter makes the users feel empowered and involved. According to Velasquez and LaRose (2015), social media enhances the participants' perception of political effectiveness and this boosts political efficacy. Nevertheless, other studies, such as Diaz et al, (2023) have shown that there are occasional negative effects of exposure to politically charged content, which causes political dis engagement; But the above study did not support this claim.

These conclusions are even reinforced by the analysis of correlation, as the usage of the Twitter is presented to be positively related to both polarization in politics and efficacy. This means that Twitter not only intensifies political polarization but also increases people's self-assurance regarding their political activities.

## Conclusion

In conclusion, this study provides a comprehensive analysis of Twitter's role in shaping political polarization and political efficacy, particularly among the youth of South Punjab. The findings demonstrate that Twitter usage has a significant and positive impact on both political polarization and political efficacy, with Twitter acting as a double-edged sword in the political realm. On one hand, increased usage of Twitter is strongly associated with heightened political polarization, as users tend to engage within echo chambers and receive algorithmically curated content that reinforces their pre-existing political beliefs. This contributes to the deepening of ideological divisions, as confirmed by previous studies that highlight the platform's tendency to amplify partisan content and create isolated political bubbles.

On the other hand, Twitter also enhances users' political efficacy by providing them with a platform to engage in direct political discussions and interact with political leaders and the general public. The platform's participatory nature fosters a sense of political empowerment among users, allowing them to feel more capable of influencing political outcomes. This heightened sense of political efficacy aligns with existing research that underscores the role of social media in boosting individuals' confidence in their political knowledge and capacity for action.

However, the dual role of Twitter presents a challenge for democratic engagement. While it offers an accessible platform for political participation, it also poses the risk of worsening political polarization, which can undermine constructive dialogue and exacerbate societal divisions. Policymakers, educators, and social media platforms must find ways to balance the benefits of increased political efficacy with the dangers of deepening political polarization. Addressing this challenge will require interventions that promote exposure to diverse perspectives and enhance critical thinking among social media users to mitigate the risks posed by algorithm-driven echo chambers.

The implications of this research extend both theoretically and practically. The study supports the echo chamber theory, demonstrating how Twitter's algorithms and user behaviors contribute to political polarization, and aligns with social cognitive theory, which highlights the role of participatory media in enhancing users' perceived political self-efficacy. Practically, the results suggest that social media platforms like Twitter need to implement features that promote diverse content exposure to counter polarization, while educators and policymakers should focus on fostering digital literacy and critical engagement with political content.

Future research should expand on these findings by exploring the impact of other social media platforms, such as Facebook and Instagram, on political polarization and efficacy. Additionally, longitudinal studies could provide deeper insights into how continuous exposure to politically sensitive content affects users' long-term political beliefs and behaviors. By addressing these areas, future research can contribute to a more nuanced understanding of the complex relationship between social media usage and political attitudes in the digital age.

Hence, this study highlights the critical role that Twitter plays in shaping political polarization and political efficacy, offering both opportunities for political engagement and risks of increased division. It is imperative that stakeholders in academia, policy, and social media design thoughtful strategies to maximize the positive effects of digital engagement while minimizing its potential harms to democratic discourse.

### **Future Directions**

This study should be extended in future by encompassing other social media platforms that include Facebook, Instagram among others, in explaining political polarization and political efficacy. Cross-sectional studies might have revealed a more nuanced picture of how the various kinds of online environments affect political engagement. Further, longitudinal research could examine the implications of the continuous exposure to the politically sensitive content in the Twitter environment on the user's political beliefs and actions. Studying these issues would also imply looking into the moderating effect of demographic variables, including age, gender, and education. Last, further studies should evaluate the impact of the interventions like exposure to the cross-cutting political views and information on the level of polarization and healthy political behaviour on social media platforms.

### **Theoretical Implications**

The implications of this study avoid in extending the theoretical knowledge about social media, particularly Twitter, affecting political polarization and political efficacy. From a theoretical standpoint, the study affirms the echo chamber theory that proposes that social media only fuels political polarization since it makes users interact with like-minded people and content. This shows how algorithm recommendation and users' activity contribute to the increase of polarization. The findings also align with the social cognitive theory, which affirms that people's perceived political self-efficacy can be boosted by engaging in participatory technologies like Twitter where political conversations and interactions are encouraged.

### **Practical Implications**

Study offers policy recommendations for policymakers, educators, and social media platforms regarding the positive or negative effects of Twitter on political beliefs. The results presented here could be useful for social media companies developing measures that would limit echo chambers, including encouraging users to follow different sources. These findings can help educators and



policymakers design effective interventions that enhance users' digital literacy and critical thinking skills in relation to political content on social media platforms to ensure that social media plays its part in strengthening democratic processes while managing risks of polarisation.

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