

Sentiment and Emotion Analysis of Shehbaz Sharif's Tweets: A Time-Agnostic Computational Approach

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Abstract

Sentiment analysis, a computational method for examining sentiments, and emotion analysis, a more comprehensive approach, are both vital in understanding textual expressions. While sentiment analysis focuses on identifying positive, negative, and neutral sentiments, emotion analysis delves deeper to discern a broader spectrum of emotions including anger, disgust, fear, sadness, happiness, and surprise. Although sentiment and emotion analysis have been extensively explored, there is a notable dearth of research concerning Pakistani politicians. This study seeks to fill this gap by analyzing the online presence of Shehbaz Sharif, a prominent Pakistani politician, through sentiment and emotion analysis of his tweets. Sentiments were analyzed using Orange software, while emotions were manually identified based on Plutchik's Wheel of Emotions, complementing the results obtained through Orange software. The findings indicate that Shehbaz Sharif predominantly expresses positive sentiments and projects a positive face through his online interactions. These results not only shed light on the demeanor of Shehbaz Sharif but also pave the way for further investigation into the realm of political discourse in Pakistan.

Keywords: sentiment analysis, emotion analysis, face, politician

1. Introduction

Sentiment analysis, commonly conducted through computational methods, aims to discern opinions, sentiments, and attitudes within textual inputs. Defined by Montoyo et al. (2012) as "the task of detecting, extracting, and classifying opinions, sentiments and attitudes concerning different topics, as expressed in textual input" (p. 676), the term sentiment analysis focuses on identifying positive, negative, and neutral feelings within text. Conversely, emotion analysis offers a more nuanced examination, detecting a range of feelings such as anger, disgust, fear, sadness, happiness, and surprise. This analysis can be coarse-grained, where emotions are classified into binary polarities, or fine-grained, identifying a broader spectrum of emotions (Park et al., 2020).

Analyzing sentiments and emotions in politicians' speeches is crucial for evaluating the efficacy of political rhetoric and communication strategies. It provides insight into the emotional appeals, persuasive tactics, and framing techniques utilized by

politicians to influence public opinion. Through sentiment analysis, researchers can assess the overall tone and decorum of political discourse, evaluating the degree of polarization, negativity, or civility present in speeches, debates, social media interactions, and media interviews (Saeed et al., 2021). With the exponential growth of social media platforms, such as Twitter, there is a growing recognition of their significance in political engagement and information dissemination (Stieglitz & Dang-Xuan, 2012).

Like politicians worldwide, Pakistani politicians actively employ Twitter to convey their messages and express their sentiments and emotions. Despite the extensive study of sentiment and emotion analysis, there remains a notable gap in research concerning Pakistani politicians. To understand the face, level of polarization, negativity, and civility in their political discourse, it is imperative to scrutinize the language they employ. Therefore, this research endeavors to analyze the public persona of Pakistani politician Shehbaz Sharif through sentiment and emotion analysis of his tweets.

The concept of face, as introduced by Goffman (1967), refers to one's public self-image, which individuals strive to maintain. It encompasses both positive face (the desire for approval) and negative face (the desire for freedom of action) (Brown & Levinson, 1978). While the notion of face is universal, its specific manifestations may vary across cultures (Brown & Levinson, 1987).

Shehbaz Sharif, president of the Pakistani political party 'Pakistan Muslim League Nawaz' (PMLN), holds significant influence in Pakistani politics, having served as the 23rd Prime Minister of Pakistan and three times as Chief Minister of Punjab. Analyzing the sentiments and emotions conveyed in his tweets can illuminate his public image, both positive and negative.

This research aims to identify the predominant sentiments expressed in Shehbaz Sharif's tweets and how they have evolved over time. It seeks to understand the variations in sentiment across different periods and determine the factors influencing these fluctuations. Additionally, the study investigates whether significant events or topics consistently affect the sentiment and emotional tone of Shehbaz Sharif's tweets. Furthermore, it explores whether sentiment and emotion analysis offer insights into his communication strategies, political messaging, or public persona.

2. Literature Review

Before delving into the research, it's crucial to discern the distinction between sentiments and emotions, as both will be integral to this study. While these terms may appear related, they encompass distinct concepts. Expressing emotions is relatively straightforward, yet analyzing them proves to be intricate. Throughout the 20th century, numerous definitions of "emotion" were proposed, reflecting its highly personal and

multifaceted nature (Kleinginna & Kleinginna, 1981). The ambiguity of language further complicates the description of mixed emotions, rendering their articulation challenging (Plutchik, 2001). Emotions manifest as behavioral changes, autonomic responses, and brief episodes within the brain (Mineka et al., 2003). Psychologically, emotions precede sentiments, with emotions representing complex reactions to stimuli and potentially eliciting physical responses throughout the body via hormone secretion. Emotions occur spontaneously and automatically, while sentiments entail our interpretation of these emotions, often influenced by cognitive processes (Broad, 1954; Izard, 2010).

Emotions are transient, fleeting experiences that swiftly emerge and dissipate, typically more intense and shorter-lived than sentiments (Ben-Ze'ev & Ben-Ze'ev, 2001). Often likened to energetic impulses coursing through the body, emotions prompt action. Within the interdisciplinary field of psychology and computer science, the study of emotions is encapsulated in affective computing, addressing both emotions and their analysis (Hakak et al., 2017). Emotions find expression through vocabulary or affective items, employing words or interjections to convey feelings (Hakak et al., 2017).

Though numerous emotions exist, four primary or basic emotions—sadness, anger, fear, and happiness—form the bedrock of our emotional repertoire. While psychologists largely accept the theory of basic emotions, debate persists regarding the precise number (Ekman, 1992a). Plutchik (1980) proposed eight primary emotions, including trust and anticipation, thereby expanding upon Ekman's model (Hakak et al., 2017). This research adopts Plutchik's Wheel of Emotions to classify the emotional content of tweets.

The transmission of emotions occurs when individuals encounter the emotional expressions of others, absorbing and processing the surrounding information (Frijda, 1986; Hatfield et al., 1993). Leaders' emotional displays can influence followers' emotions, impacting various outcomes, such as absenteeism and job satisfaction (George, 1989; George & Jones, 1997; Staw et al., 1994).

Sentiments, in contrast, represent a fusion of thoughts and emotions, emerging when individuals become cognizant of their emotional states. For instance, an emotion like sadness transforms into a sentiment upon conscious reflection. Sentiments encapsulate the subjective experience of emotions.

While sentiment analysis serves as an umbrella term for various approaches and applications, encompassing the detection and classification of opinions, attitudes, and sentiments within textual inputs (Montoyo et al., 2012). Sentiment analysis, motivated by the vast amount of user-generated content on social media, has transformed knowledge sharing, emotional expression, and communication dynamics, influencing economic, political, and social behaviors.

Emotion analysis, though often categorized within sentiment analysis, warrants distinct consideration. In this study, sentiment analysis focuses on polarity measurement—assessing the positive and negative valence of Shehbaz Sharif's tweets—while emotion analysis categorizes emotions according to Plutchik's wheel of emotion.

While sentiment analysis traditionally emphasizes polarity measurement, acknowledging the positive and negative valence of words, it encompasses broader techniques such as text classification, opinion mining, and emotion analysis (Aman & Szpakowicz, 2007). Recognizing emotions and their intensity remains an underexplored aspect of sentiment analysis (Mejova, 2009). Words possess inherent polarity, but context aids in disambiguation, helping discern whether a word carries positive, negative, or neutral connotations (Wilson et al., 2005).

3. Methodology

This study undertook sentiment (polarity measuring) and emotion analysis using computational methods coupled with pragmatics and corpus linguistics. Data were sourced from Shehbaz Sharif's official Twitter account and compiled in an MS Excel file. Given the contextual nature of language use, pragmatics guided the analysis of face, polarity, and emotions, emphasizing the significance of words within their contextual frameworks (Leech, 2016).

Drawing upon politeness theory, which delineates positive and negative face, this research adopted a nuanced approach to analyze social interactions. Positive face, as conceptualized by Brown & Levinson (1978), pertains to the desire for approval, encompassing behaviors such as showing interest, affection, praise, kindness, and love. Conversely, negative face involves face-threatening acts or impoliteness, such as disassociation, ignoring, snubbing, indifference, unsympathetic behavior, taboo language, derogatory remarks, or obfuscation (Culpeper et al., 2003).

The data analysis proceeded in two stages. Initially, tweets were subjected to sentiment analysis using Orange software, followed by manual elaboration of the results. During this manual analysis, emotions were discerned according to Plutchik's taxonomy. Plutchik (1980) delineates eight basic emotions organized into four opposing pairs: joy-sadness, trust-disgust, anger-fear, and anticipation-surprise. These pairings are rooted in the psychological reactions elicited by these emotions in animals, including humans.

Table 1

Opposite Emotions in Plutchik's Wheel of Emotion and their Physiology

Opposite Emotions	Physiology
Joy vs Sadness	Connect vs Withdraw
Fear vs Anger	Get small and hide vs get big and loud
Anticipation vs Surprise	Examine closely vs Jump back
Disgust vs Trust	Reject vs Embrace

The analysis of emotions involved a manual examination, considering the physiological and behavioral responses associated with each emotion pair. For instance, joy, the opposite of sadness, fosters connection, whereas sadness prompts withdrawal. Similarly, fear and anger represent opposing emotions, with fear evoking a sense of smallness and retreat, while anger leads to amplification and vocal expression. Anticipation and surprise contrast in their response, with anticipation fostering a cautious examination, while surprise triggers a reflexive startle response. Lastly, disgust and trust stand as opposite emotions, with disgust prompting rejection and avoidance, while trust engenders acceptance and embrace.

4. Analysis

To gain a comprehensive understanding of Shehbaz Sharif's content, an extensive sentiment analysis of his posts was conducted. This analysis utilized Orange Software to assess sentiment polarity. The process began by uploading the corpus file, saved in Microsoft Excel comma-separated format (CSV UTF-8 - Comma Delimited), into the Orange Software interface.

To upload the corpus file, the 'Corpus' widget within the Text Mining category was selected from the available widgets on the left side of the software interface. Upon right-clicking within an empty white dialogue box, the 'Corpus' widget was accessed. A dialogue box appeared, allowing the selection and upload of Shehbaz Sharif's tweets corpus via the 'Browse' option.

Once the corpus was uploaded, it underwent sentiment analysis using the 'Sentiment Analysis' widget, also located within the Text Mining category. The 'Sentiment Analysis' feature provides various modules for sentiment analysis, with the Vader module selected for this research due to its capability to generate four distinct features: positive score, negative score, neutral score, and compound score. The compound score reflects the overall sentiment of a tweet, ranging from +1 for the most positive sentiment to -1 for the most negative sentiment.

To conduct sentiment analysis, the 'Corpus' widget and the 'Sentiment Analysis' widget were interconnected by clicking and dragging the line from the right dotted lines of the 'Corpus' widget to the left dotted lines of the 'Sentiment Analysis' widget. Subsequently, the 'Data Table' widget, located within the Data category, was selected to display the sentiment analysis results.

Following the analysis, the resultant file was saved using the 'Save Data' widget within the Data category. It is crucial to establish connections between widgets to ensure their functionality.

The detailed steps for conducting sentiment analysis through Orange Software are summarized below:

- 1) Upload the corpus file in CSV UTF-8 format using the 'Corpus' widget.
- 2) Access the 'Sentiment Analysis' widget within the Text Mining category.
- 3) Choose the Vader module for sentiment analysis.
- 4) Connect the 'Corpus' widget to the 'Sentiment Analysis' widget.
- 5) Utilize the 'Data Table' widget to display the sentiment analysis results.
- 6) Save the analyzed data using the 'Save Data' widget within the Data category.

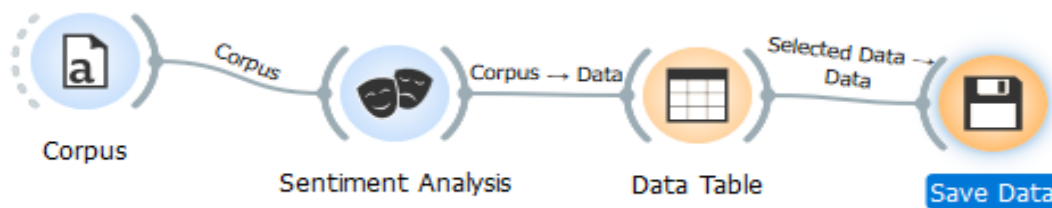


Figure 1. Analyzing sentiments and saving the file

In this research, obtaining a representative sample of data for subsequent analysis required the use of the 'Data Sampler' feature. This functionality allows for the extraction of a random subset from the complete dataset, offering the flexibility to adjust the sample size according to specific needs.

5. Results

For the present study, the tweets of Shehbaz Sharif were collected from the 24th of December 2015 to the 3rd of June 2021. It's pertinent to note that Shehbaz Sharif served as the Chief Minister of Punjab from the 7th of June 2013 to the 7th of June 2018. This positional context is crucial as it influences the expression of sentiments.

Additionally, Shehbaz Sharif is a prominent leader within the political party PMLN, further underlining the significance of his tweets for analysis.

5.1 Positive Face of Shehbaz Sharif

During analysis, some themes emerged under the positive face of Shehbaz Sharif (SS). Following are some themes that emerged from Shehbaz Sharif's display of a positive face, one example of each theme is given below:

Table 2

Concern for People

Tweet	pos	neg	neu	compound
In order to determine a society's moral health, one has to look at its treatment of its women, minorities & vulnerable sections of society..	0	0.083	0.917	-0.2263

This tweet of Shehbaz Sharif (SS) is from March 2017 when he was the Chief Minister of Punjab. In this tweet, SS is focusing on the moral health of society. He emphasizes the value of treating women, minorities, and other vulnerable members of society with dignity. SS is showing a positive face by showing his interest in this matter and being considerate of this section of society. The sentiment score of this tweet analyzed through Orange Software is 0 positive score, 0.083 negative score, and 0.917 neutral score. The compound sentiment score is -0.2263 which indicates that the overall tweet is negative. Although the tweet is not negative, however, due to the use of words such as vulnerable its polarity is a little negative.

Table 3

Admiring Someone/Something

Tweet	pos	neg	neu	compound
I have seen Rescue 1122 responding to tragedies. Whether it is flood or fire eruption, Rescuers have been at the forefront of rescue efforts	0.214	0.172	0.615	0.3182

In this tweet, Shehbaz Sharif (SS) is praising Rescue 1122. Rescue 1122 is the emergency service in Pakistan. Shehbaz Sharif praised Rescue 1122 by stating that the service always responds to all types of tragedies. Shehbaz Sharif is admiring the service and it shows his positive face. The sentiment score of this tweet analyzed through Orange Software is 0.214 positive score, 0.172 negative score, and 0.615 neutral score out of 1.

The compound sentiment score is 0.3182 which indicates that the overall tweet is positive.

Table 4

Sad on Death/Loss/Tragedy

Tweet	pos	neg	neu	compound
Sorry to hear about the incident of fire burning the residence of senior PML-N leader Engineer Amir Muqam in Malam Jabba today. Allah Almighty be thanked that all the people remained safe.	0.155	0.099	0.747	0.4767

In this tweet, Shehbaz Sharif (SS) is expressing his grief to senior PMLN leader Amir Muqam at the incident of fire, burning his residence. SS is showing a positive face by showing his concern and by being sad about Amir Muqam's loss. The sentiment score of this tweet analyzed through Orange Software is 0.155 positive score, 0.099 negative score, and 0.747 neutral score. The compound sentiment score is 0.4767 which indicates that the overall tweet is positive.

Table 5

Wishing Someone

Tweet	pos	neg	neu	compound
Pleased to know :) congrats & good luck! -SS	0.795	0	0.205	0.9381

In this tweet, Shehbaz Sharif wishes someone good luck and is happy to know about their success (details of the tweet not available at the time of data analysis). Shehbaz Sharif showed a positive face with this response. The sentiment score of this tweet analyzed through Orange Software is 0.795 positive score, 0 negative score, and 0.205 neutral score. The compound sentiment score is 0.9381 which indicates that the overall tweet is positive.

Table 6

Paying Thanks

Tweet	pos	neg	neu	compound
@mkashbajwa thank u kashif saab!	0.482	0	0.518	0.4199

This tweet of Shehbaz Sharif (SS) is from September 2016 when he was the Chief Minister of Punjab. In this tweet, SS is paying his thanks to his Twitter followers for wishing him on his birthday. SS is showing his positive face in this tweet and expressing emotion of happiness. The sentiment score of this tweet analyzed through Orange Software is 0.482 positive score, 0 negative score, and 0.518 neutral score. The compound sentiment score is 0.4199 which indicates that the overall tweet is positive.

Table 7

Showing Trust

Tweet	pos	neg	neu	compound
Enroute Sahiwal for PMLN workers convention - humbled by the people's warmth and love at a stopover at Manga Madi. Their vote on July 25 will be a vote for development and performance. PML-N continues to be party of the masses, deeply rooted and owned by them.	0.194	0	0.806	0.872

In this tweet, Shehbaz Sharif is optimistic about winning the 2018 election. He is talking about his journey towards Sahiwal City for the workers' convention and his meeting with people at a stopover at Manga Mandi. SS is confident that people's vote will be for PMLN which is the deeply rooted party of the masses. SS is showing his positive face by showing his trust and love for people. The sentiment score of this tweet analyzed through Orange Software is 0.194 positive score, 0 negative score, and 0.806 neutral score. The compound sentiment score is 0.872 which indicates that the overall tweet is positive.

Table 8

Showing Interest

Tweet	pos	neg	neu	compound
Census exercise is central to fair distribution of resources & planning for future... I appeal to people to cooperate with staff ... Thanks!	0.224	0	0.776	0.6696

This tweet of Shehbaz Sharif (SS) is from March 2017 when he was the Chief Minister of Punjab. In this tweet, SS is requesting Pakistani people to cooperate with Census staff as it is a very important process for the fair distribution of resources and planning for the future. SS is showing a positive face by showing his interest and requesting people for cooperation. The sentiment score of this tweet analyzed through

Orange Software is 0.224 positive score, 0 negative score, and 0.776 neutral score. The compound sentiment score is 0.6696 which indicates that the overall tweet is positive.

Table 9

Happy on Success/Achievement

Tweet	pos	neg	neu	compound
Haha! This 'out of syllabus' thing reminds me of school <u>days</u> . ENG team stunned by spin wizardry of our Yasir <u>Shah</u> .	0.139	0.059	0.802	0.4389

In this tweet, Shehbaz Sharif is sharing a meme related to a cricket match between Pakistan and England won by Pakistan. The meme is from the perspective of the England team stating we prepared for Amir (Pakistani Cricketer) whereas Yasir Shah (Pakistani Cricketer) came out of the syllabus. SS shows his happiness and joy by sharing this meme and showing his positive face. SS says "This 'out of syllabus' thing reminds me of school days". SS is happily stating that the England team is stunned by the spin wizardry of Yasir Shah. The sentiment score of this tweet analyzed through Orange Software is 0.139 positive score, 0.059 negative score, and 0.802 neutral score. The compound sentiment score is 0.4389 which indicates that the overall tweet is positive.

Table 10

Showing Love for Others

Tweet	pos	neg	neu	compound
As we stay home & explore ways of spending time productively, it is important to invest in our relationship with the family, something that has weakened due to 24/7 demands of work. Strengthen the human bond with <u>ur</u> loved ones particularly the elderly & reach out to those who live away from us. Nothing is more soothing in these difficult times than love & compassion	0.174	0.043	0.783	0.7239

This tweet of Shehbaz Sharif is from 1st April 2020, during the time of COVID lockdown. In this tweet, Shehbaz Sharif is advising to spend time with family and strengthen the human bond that has weakened due to the 24/7 demands of work. SS is emphasizing that there is nothing more soothing in these difficult times than love and compassion. In this tweet, Shehbaz Sharif is showing his positive face by showing his love for his family and loved ones and by accepting their importance. The sentiment

score of this tweet analyzed through Orange Software is 0.174 positive score, 0.043 negative score, and 0.783 neutral score. The compound sentiment score is 0.7239 which indicates that the overall tweet is positive.

Table 11

Negative Face of Shehbaz Sharif

Tweet	pos	neg	neu	compound
The gap between the <u>high sounding</u> claims made by Imran Khan and the scary reality on the ground could not be wider. One crisis after another from sugar to wheat to petrol speaks to the sheer incompetence that is eating into the vitals of governance.	0.039	0.197	0.764	-0.8591

During analysis, some themes emerged under the negative face of Shehbaz Sharif. One example of each theme is given below.

5.2 Criticism or Anger at The Government

This tweet of Shehbaz Sharif is from July 2020, during the government of Imran Khan. Shehbaz Sharif is criticizing Imran Khan that Imran Khan has made high-sounding claims but the reality on the ground is scary. According to SS, the gap between Imran Khan's claims and the reality could not be wider. SS is criticizing that in Imran Khan's governance, there are crisis after crisis including sugar, wheat and petrol. In this tweet, Shehbaz Sharif is showing his negative face by getting angry and criticizing Imran Khan. The sentiment score of this tweet analyzed through Orange Software is 0.039 positive score, 0.197 negative score, and 0.764 neutral score. The compound sentiment score is -0.8591 which indicates that the overall tweet is negative.

5.3 Positive Plus Negative Face of Shehbaz Sharif

A few of the tweets contained both a positive and a negative face simultaneously. Those tweets are arranged under the heading of Positive plus Negative face. These tweets also display some themes, one example of each theme is given below:

Table 12

Trust and Threat

Tweet	pos	neg	neu	compound
I visited Lahore yesterday & met people in different areas. I have gauged the mood of Lahorites. We are winning elections by the grace of Allah. If the results of elections are illegally changed, those doing so will be brought to justice. #SSpresser	0.206	0	0.794	0.8625

This tweet of Shehbaz Sharif is about the 2018 election in Pakistan. SS visited Lahore and met with people in Lahore. According to SS analysis of people's mood they (PMLN) are going to win the election. SS is warning that if the election results are illegally changed then those doing so will be brought to justice. SS presents a positive face by being hopeful for the PMLN's triumph, and then he presents a negative face by issuing a warning. The sentiment score of this tweet analyzed through Orange Software is 0.206 positive score, 0 negative score, and 0.794 neutral score. The compound sentiment score is 0.8625 which indicates that the overall tweet is positive.

Table 13

Trust and Anger

Tweet	pos	neg	neu	compound
An internally stable, economically prosperous & united Pakistan can be a strong bulwark against Modi's nefarious designs. Allah has blessed us with everything, what we precisely need is the will to leverage the resources to the benefit of the nation. #AJKaddress	0.357	0	0.643	0.9538

In this tweet, Shehbaz Sharif is talking about his address at the Azad Kashmir Legislative Assembly. This address was given when he was not the CM of Punjab and Imran Khan was in the government. During his address, SS said that a stable, economically prosperous, and united Pakistan can be a strong bulwark against Modi's (Indian Prime Minister) nefarious designs. SS said Allah has blessed us with everything and we just need the will to leverage the resources. In this tweet, SS is showing his positive and negative face. SS shows his negative face and anger while talking about Modi and his positive face and trust while talking about Pakistan and its resources. The sentiment score of this tweet analyzed through Orange Software is 0.357 positive score, 0

negative score, and 0.643 neutral score. The compound sentiment score is 0.9538 which indicates that the overall tweet is positive.

Table 14

Concern and Anger

Tweet	pos	neg	neu	compound
As per NDMA, 39 people have died and 135 people are missing so far in the ongoing storms and torrential rains but we see no word or rescue efforts by the govt. Such an apathetic attitude of the govt is mind boggling and condemnable.	0.084	0.179	0.737	-0.4678

This tweet of Shehbaz Sharif is about rain spells and storms during April 2019. SS is condemning the government for not saying anything or doing any rescue operations for people during storms and torrential rains. In this tweet, SS is showing both his positive and negative face. He is showing his concern for people and it shows his positive face and then he gets angry and criticises the government which shows his negative face because anger and criticism are negative face traits. The sentiment score of this tweet analyzed through Orange Software is 0.084 positive score, 0.179 negative score, and 0.737 neutral score. The compound sentiment score is -0.4678 which indicates that the overall tweet is negative.

Table 15

Joy and Criticism

Tweet	pos	neg	neu	compound
Just addressed Workers' Convention in Swat. Massive enthusiasm was on display. All claims of 'change' made by PTI are bogus. Their change lay in the ads/facebook/photoshop. PTI broke all records of corruption & gave contract to black-listed companies in KP. Now off to FAISALABAD!	0.068	0.06	0.872	0.1007

This tweet of Shehbaz Sharif is from July 20, 2018, before the election of 2018. SS is thrilled after addressing the Workers' Convention in Swat due to their massive enthusiasm. SS is criticizing PTI for their slogan of 'change' and calling it a bogus claim. SS said that the change of PTI is only visible in ads, Facebook, and Photoshop. SS is declaring PTI to be extremely corrupt and to give contracts to blacklisted companies in

KP. Then SS informs that his next destination is Faisalabad. In this tweet, SS is showing both positive and negative face. SS shows his positive face while talking about his address and enthusiasm for the public and later on, while talking about PTI he criticises PTI which shows his negative face. The sentiment score of this tweet analyzed through Orange Software is 0.068 positive score, 0.06 negative score, and 0.872 neutral score. The compound sentiment score is 0.1007 which indicates that the overall tweet is positive.

6. Discussion

This study adds to the existing body of literature by conducting computational and manual analyses to examine the face of Pakistani politician Shehbaz Sharif through sentiment and emotion analysis. The present research was an attempt to identify the positive and negative face of Shehbaz Sharif with the help of computational methods of sentiment and manual analysis of emotions. The results of this study point out three types of sentiments used by Shehbaz Sharif in his posts. Those sentiments are positive, negative and neutral. The major finding of this study reveals the inclination of Shehbaz Sharif towards positive sentiments. The following Table shows the frequency of positive, negative and neutral polarity in Shehbaz Sharif's tweets.

Table 16

Sentiments (Polarity) expressed in Shehbaz Sharif's Tweets

Positive Polarity	Negative Polarity	Neutrality	Total No. of Tweets
1553	613	320	2486

The above Table shows that from a total of 2486 tweets, 1553 tweets of Shehbaz Sharif were of positive polarity. Negative tweets were 613, and 320 tweets were neutral.

While Shehbaz Sharif's sentiments and emotions predominantly leaned towards positivity, the study unveiled their evolution over time, with a notable factor being his position. When in government, Shehbaz Sharif exhibited a greater inclination towards positivity. However, instances of his tweets displaying a purely negative face primarily revolved around criticism or anger directed at the government or opposition. This suggests that Shehbaz Sharif tends to express his negative face towards opposing parties, regardless of whether he holds a government or opposition position.

The predominant factors influencing Shehbaz Sharif's emotions pertain to subjects that evoke his concern for individuals or evoke feelings of sadness stemming from incidences such as death, loss, or tragedy. The sentiments of these subjects tend to be

negative, due to the utilization of negative polarity items or lexicon infused with sad emotions.

The sentiment and emotion analysis of Shehbaz Sharif's tweets provide insights into his communication strategies, political messaging, and public persona. He is more polite in his language showing a positive face as authenticated by the Table below. The themes of the Table with positive face are more in number than the one with negative themes with a negative face. His negative theme with the negative face is just one. Whereas his themes with positive plus negative face are four in total. These numbers show that he is less inclined towards negativity and more towards positivity. His tweets showing some negative themes of threat, anger, and criticism are paired with positive themes of trust, concern, and joy.

Table 17

Face and different themes associated with it expressed in Shehbaz Sharif's tweets

Face	Themes
Positive Face	Wishing someone
	Paying thanks
	Admiring someone/something
	Sad on death/loss/tragedy
	Concern for people
	Trusting others
	Happy on success/achievement
	Showing interest
Negative Face	Showing love
	Criticism or anger at the government/opposition
Positive Plus	Anger and Concern
Negative Face	Trust and Threat
	Trust and Anger
	Joy and Criticism

Table 3 represents different themes that emerged under positive, negative, and positive plus negative face. These themes show that Shehbaz Sharif's positive posts are related to people. He is showing his concern and love for others to build a positive public persona. These communication strategies shape a positive political discourse, shape public opinion, and represent a politician to be supportive.

7. Conclusion

To recapitulate, this study aimed to investigate Shehbaz Sharif's tweets through a computational sentiment analysis approach, with a particular focus on the analysis of

"face" in Twitter communication. A corpus-based pragmatic analysis was utilized in the study to investigate how a politician's online communication reflects his positive and negative sentiments, and how these sentiments shape public opinion and influence political discourse. According to present research, sentiment analysis in combination with emotion analysis has appeared to be very valuable for analyzing the face of Pakistani politicians. Using computational methods of sentiment and emotion analysis helps save time in manually analyzing face. However, it is observed that only sentiment analysis (polarity measuring) can sometimes mislead or give inaccurate results due to the presence of negative polarity items or the absence of negative polarity items. To confirm the negative sentiments as having a negative face and positive sentiments as having a positive face, emotion analysis plays a vital role. The main findings of the study recognized Shehbaz Sharif as having a positive face rather than a negative. His sentiments are influenced due to two factors: by showing concern for people or being sad about some death/loss/tragedy, and by criticizing his opponents. The study effectively accomplished its main goal of using computational methods of sentiment analysis to analyze Pakistani politicians' face. Through the use of positive and negative face classification, the study aimed to offer a more nuanced understanding of the language decisions politicians made when posting on Twitter. Although the study offers insightful information, there are several limitations. The analysis was limited to a single Politician and platform because the research only looked at data collected from Shahbaz Sharif's Twitter. The study's sample size, which consists of a Pakistani politician's tweets, might not fully reflect the country's diversity of political viewpoints. However, the results of this study provide opportunities for future investigation. Further research endeavours may broaden the scope of this study by merging qualitative analyses and data collected from other social media platforms, so offering a more thorough comprehension of political communication and politicians' face.

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