SENTIMENT ANALYSIS OF PUBLIC PERCEPTION TOWARDS ZOHRAN MAMDANI'S VICTORY IN THE NEW YORK MAYOR'S ELECTION

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ABSTRACT

This study examines public reactions towards Zohran Mamdani's victory in the New York Mayor's election. For this purpose, the researchers have created a dataset of YouTube users' comments on Mamdani's speech. The sentiment analysis tool Orange has been used to analyse public reactions towards his victory speech. After a thorough analysis of the data, the researchers have found that the public holds strong positive views of Mamdani's victory, though there is some negativity towards Mamdani's Muslim identity. Sentiment scores were defined with the highest positive sentiment set to 1 and the negative sentiment to 0.893. Key themes that emerged from the public perception of Mamdani's victory are hope for change and emotional uplift, viewers' celebration, blessings, global support for Mamdani, anti-Muslim, anti-immigrant hate directed at Mamdani, and gender inclusivity. This research calls for further exploration of these findings to compare public reactions to previous mayors and to those in other U.S. cities whose identities are neither Muslim nor immigrant.

Keywords: *Zohran Mamdani, Sentiment Analysis, Orange, New York, Public Perception.*

1. INTRODUCTION

The mayoral election of New York City drew a huge media attention, not because it was the election happening in one of the historical cities of the United States of America, but because for the first time a Muslim candidate Zohran Madani, who belongs to an immigrant family native of Kampala and settled in America, was granted American citizenship in 2018 was contesting, and that too against Trump's favoured candidate, Cuomo. In the 2025 mayoral election, three candidates contested: Zohran Mamdani, a Democrat; Andrew

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Cuomo, a former Democratic governor of New York; and Curtis Saliva, the Republican candidate (Persaud, 2025; Uribe, 2025; Zaib et al.2026).

The election results were unexpected for most media outlets worldwide. According to Davis (2025), Mamdani's victory demonstrates the power of mobilising non-voters. He has turned the tables by directly addressing the communities that politics usually ignores. His campaign was different from a conventional campaign; he listened to people's issues by meeting them.

Mamdani's win has been considered a lifelong learning for politicians around the world as Yaka (2025) in her report published by the *International Research Group on Authoritarianism and Counter-Strategies* has highlighted that he has shown the world that it is not only about practising Authoritarianism but it's all about providing an alternative and wining the trust of voters and their love because his identity did not affected his campaign but the dignified way he addressed the nation. Dionne (2025) is of the view that something really new has happened in the history of American politics, and Mamdani's victory has broken the shackles and stereotypes about the American society. Moreover, Donegan (2025), in an article published in The Guardian, stated that Mamdani's victory is primarily a public rebuke of the failed strategies of previous governments. The current study in this regard is of utmost importance as it focuses on to see the public perception of Mamdani's victory.

1.1 Research Objective

The objective of the study is:

1. To identify and analyse the dominant sentiments and thematic patterns in the public responses towards Mamdani's victory in New York's Mayoral election.

1.2 Research Question

This research study addresses the following research question:

Q1- What are the dominant sentiments and thematic patterns found in the public responses towards Mamdani's victory in New York's Mayoral election?

2. LITERATURE REVIEW

This study focuses on the discourse digitally created from Mamdani's political speech. In the current era, updates are much faster, mediated digitally by advanced technology and the internet. In digital discourse, one prominent discourse is digital political communication. Digital political discourse is the

exchange of opinions, ideas, and information through digital platforms (Alexandropoulos, 2024). Social media is used in distinct ways. For instance, Americans use it for political movements; in Latin America, digital activism is evident; and in Africa, digital communication addresses special challenges, including poverty, political instability, corruption, and climate change. Politics and political mass mobilization have changed in many ways due to these technological advances. Now, politicians can digitally organize campaigns and communicate with voters using tools such as social media. On the other hand, digital political discourse has many disadvantages in the absence of face-to-face interaction with voters, such as misguidance and fabricated news (Shahreza, 2024).

Research in the field of political discourse analysis has mostly been conducted in the 21st century on political digital communication, using corpus analysis, Critical Discourse Analysis, Political Discourse Analysis, Discourse Analysis, and Sentiment Analysis as main methodological frameworks. For instance, people form opinions, discuss politics on social media, and express different emotions towards various governmental actions, whether they are political decisions or their implementation. However, studies have emphasized that understanding the sentiments portrayed in digitally created public discourse requires a detailed analysis of their responses. Hence, the technique used in sentiment analysis is a strategic tool for identifying public emotions in such discourses, as the public's ideas and opinions about politics vary by location, platform, age, and level of knowledge. It often aligns with real-world political outcomes. In such studies, caution has also been emphasized when using different platforms and when handling multiple languages (Gnanapriya & Anandan, 2025; Same'e, 2024; La Gioia, 2023; Pramono & Fitriyani, 2024).

Moreover, the studies by Rabab'ah et al. (2024) and Munir and Ahmed (2024) demonstrate that in political speeches or discussions, politicians consistently use identity-based hate remarks to target particular groups, such as immigrants, religious, or ethnic groups. From the campaigns of Donald Trump, it is evident that offensive, hateful, and impolite language is used purposefully to provoke adverse sentiments, advance nationalist discourse, and strengthen hierarchical norms. Such societal language ideologies exist in the country and reinforce social divisions and discrimination. Social media apps have intensified these consequences, as identity-based hate can spread quickly; this discourse influences people's opinions and normalizes discrimination (Agarwal et al., 2021). The above-mentioned studies clearly identified an alignment between identity-based online hate, political discourse, and the shaping of people's opinions through discourse, which ultimately influenced the public opinion towards Mamdani, who was an immigrant and

had a different racial background. The results turned in his favour and set a trend in the United States' political spectrum regarding communal inclusivity.

2.1 Research Gap

The above detailed literature review has witnessed the fact that victory in election campaigns based mostly on the politically motivated public sentiments. Politicians in the regard use many context-based tactics; some do it via spreading hate and communal divide while some use their social status as a tool to secure victory and numerous research studies have confirmed by analysing the political discourse such as politicians' speeches and social media posts. Whatsoever, the case is it is really important to know what the public sentiments are during and after elections. And there is a scarcity of research on a systematic identification of public sentiments in the said scenarios. Hence, the current study in this regard is of utmost importance as it looks at the public responses towards Mamdani's victory.

3. RESEARCH METHODOLOGY

3.1 Research Design

This study employed a mixed-methods approach, combining quantitative and qualitative methods. The quantitative method involved statistical analysis of data using the *Orange* software (Demsar et al., 2013) to identify and visualize the dominant sentiments and emotions. The qualitative part of this study involved analysing statistical data and comments to obtain in-depth meanings and themes.

3.2 Corpus Design

The researchers collected data using Python Jupyter Notebook from YouTube (Zahir et al., 2025). To retrieve comments, the YouTube API key for one of the researchers was used, along with the video's ID. A total of 2437 comments from Zohran Mamdani's speech video were retrieved from the NYC official YouTube channel to assess public perception. The data was retrieved in CSV format and then uploaded to the *Orange* software. The data was visualized and validated using the data table feature in Orange.

3.3 Rationale for Data Selection

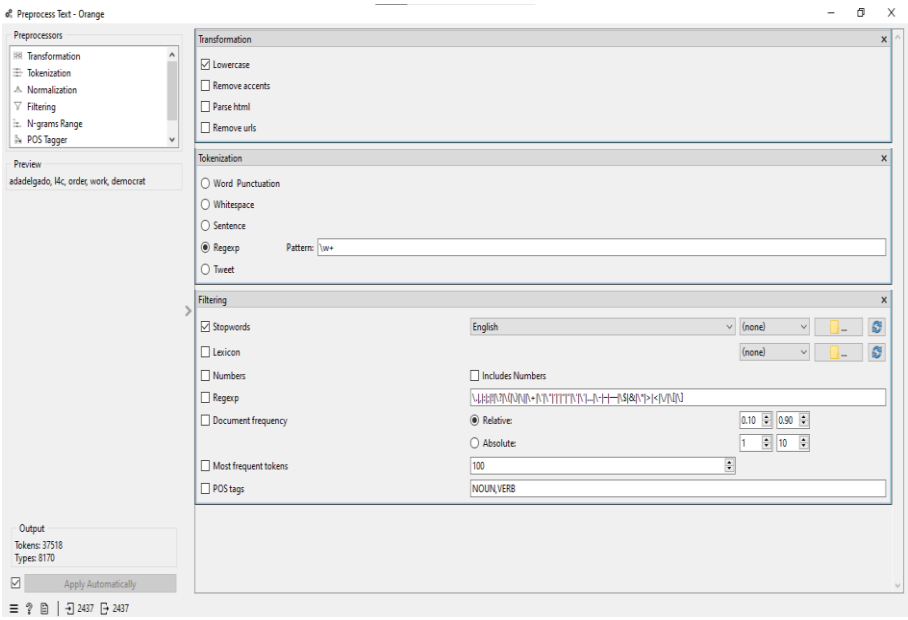
Zohran Mamdani contested and won the election, becoming the first Muslim to serve as New York City's mayor. However, according to the study of Jardina and Stephens-Dougan (2021), anti-Muslim attitudes have become a lasting component of how Americans make voting decisions. Such as voting based on party loyalty, identity-based, media, or community influence. The

researchers in the current study were mainly motivated by this aspect of the communal divide: having a Muslim mayor and observing how the public responds to Mamdani's victory and the future of American states' politics.

3.4 Preprocessing Step

The data was refined before analysis by filling in empty cells, removing irrelevant information, normalizing the numeric values, and encoding categorical data:

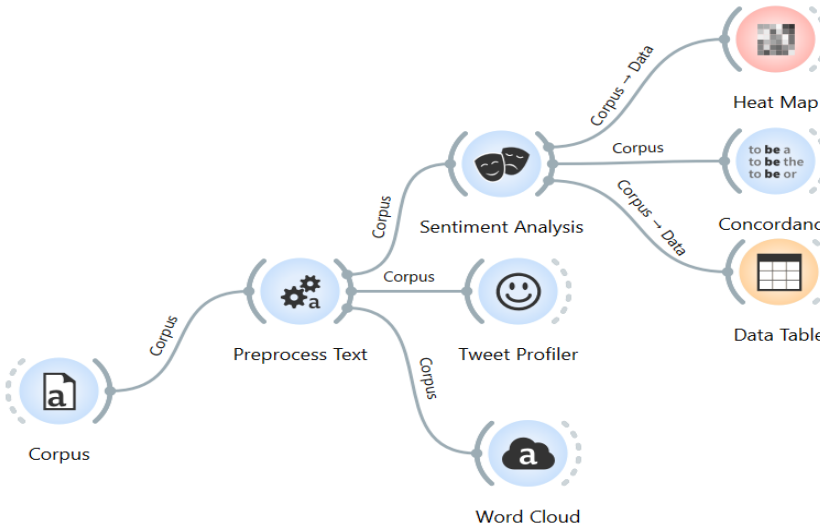
Figure 1: *Data Refining Steps*



3.5 Corpus Analysis

The data was initially categorised into positive and negative sentiments using the VADER filter (Breeze & Hassan, 2024; Hassan et al., 2025). The Valence Aware Dictionary and Sentiment Reasoner (VADER), a feature of the *Orange* software, which helps to categorise sentiments as positive, negative, neutral, or compound (Hutto & Gilbert, 2014). The following figure shows the hierarchy of widgets used by the researchers to analyse the data.

Figure 2: *Hierarchy of the widgets in Orange software*



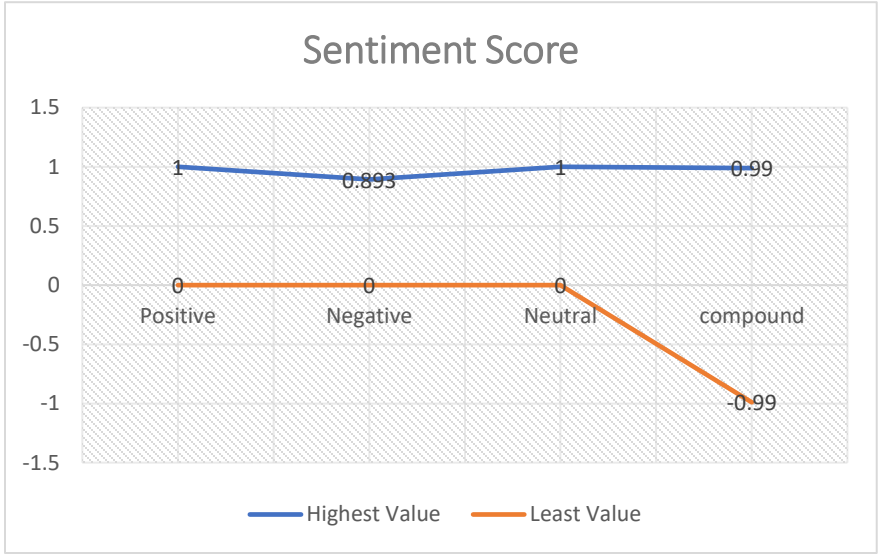
3.6 Models used for Analysis

The focus of the study was to identify and categorise sentiments such as negative, positive, neutral and compound and analyse their thematic patterns. For this purpose, the researchers drew on Hutto and Gilbert's (2014) study of sentiment identification and categorisation using tokenised lexical items. Hutto and Gilbert (2014) developed a sentiment analyser, called VADER, which, according to them, is a "parsimonious rule-based model used for sentiment analysis". They asserted in their study that sentiments are encoded in lexis and short phrases, and that VADER helps researchers extract sentiments from linguistic context because it is context-sensitive and does not rely on fixed rules (Youvan, 2024). Furthermore, to identify thematic patterns in the data, the researchers also used Braun and Clark's (2006) *Thematic Analysis* to interpret and understand the lexical items carrying sentimental load and to describe the themes in their contextual portrayals.

4. RESULTS AND DISCUSSION

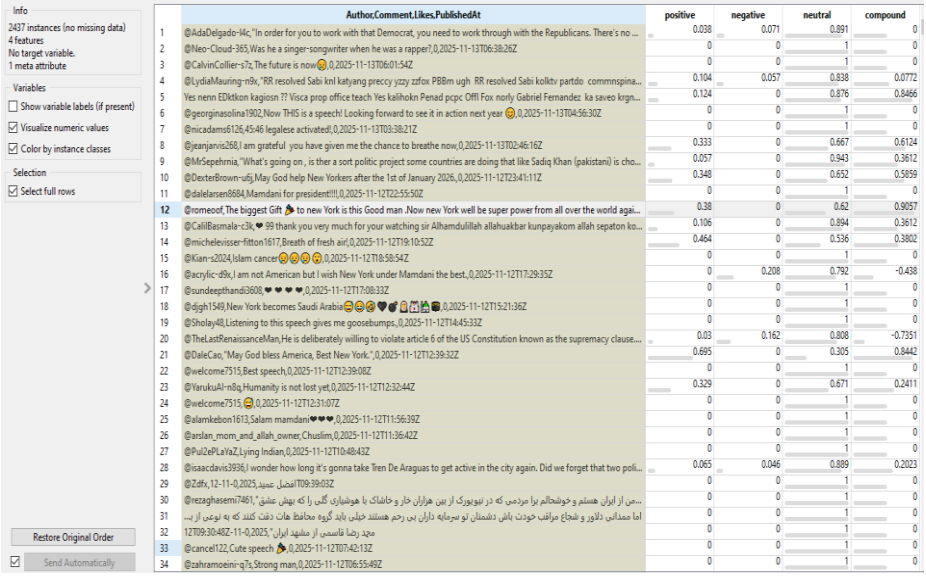
This study analyses a list of comments with assigned sentiment values, along with systematic rules to determine whether the texts are positive, negative, neutral, or compound (GreeksforGreeks, 2025).

Figure 3: *Highest and least sentimental score in the corpus*



The figure above clearly shows the differences in the statistical values for both positive and negative sentiment expressed by the public in their comments on Zohran's YouTube speech.

Figure 4: Sentiment score of comments



The figure above shows the sentiment score for each comment, computed using the VADER method, to evaluate the dominant sentiment categories: positive, negative, neutral, and compound. The highest positive sentiment score for public responses to Zohran Mamdani's victory is 1, while the lowest is 0. This provides insight into how the audience reacted positively to his victory, which projects new hope. On the other hand, the highest negative sentiment value is 0.893, with the lowest being 0, indicating that viewers expressed negative sentiment in their choice of words, as they were not happy with this success. Moreover, the highest neutral value is 1, and the lowest is 0. Additionally, the highest compound sentiment value is 0.99887, while the lowest is -0.992.

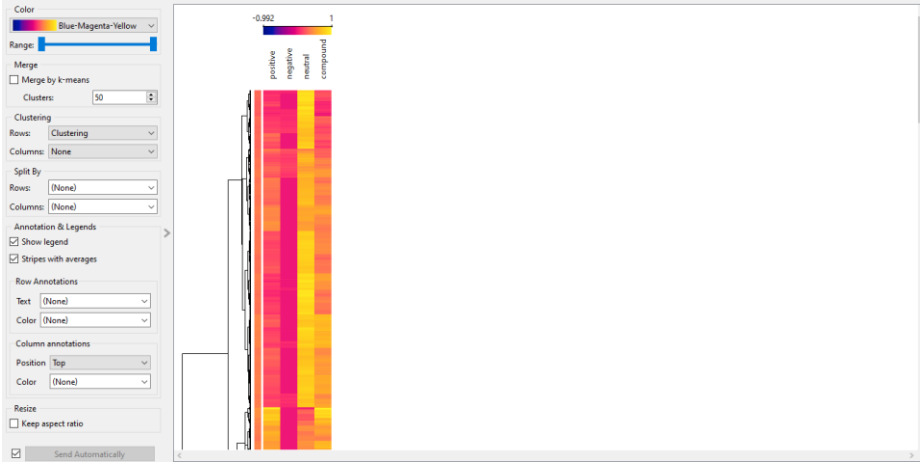
Figure 5: *Word Cloud of comments' corpus*



The *word cloud* feature visually represents the most frequently occurring words in the dataset. The most common keywords include *2025* (2123), *New* (375), *York* (247), *people* (246), *Mamdani* (218), *speech* (196), *like* (186), *hope* (165), *NYC* (165), *Zohran* (151), *city* (132), *good* (122), *congratulations* (122), *mayor* (122), *God* (118), *us* (113). The keyword "*New York*" *is the most frequent, discussing mostly his social work* and calling for justice in the city. Words like *People*, *Mamdani*, and *Zohran* reflect the community's joy and blessings for Mamdani. Additionally, terms such as *speech*, *like*, *hope*, *NYC*, and *city* suggest that Mamdani's speech has evoked hope in people's hearts and has called for a leader with courage and integrity who can change the city's conventional political system, becoming a voice of

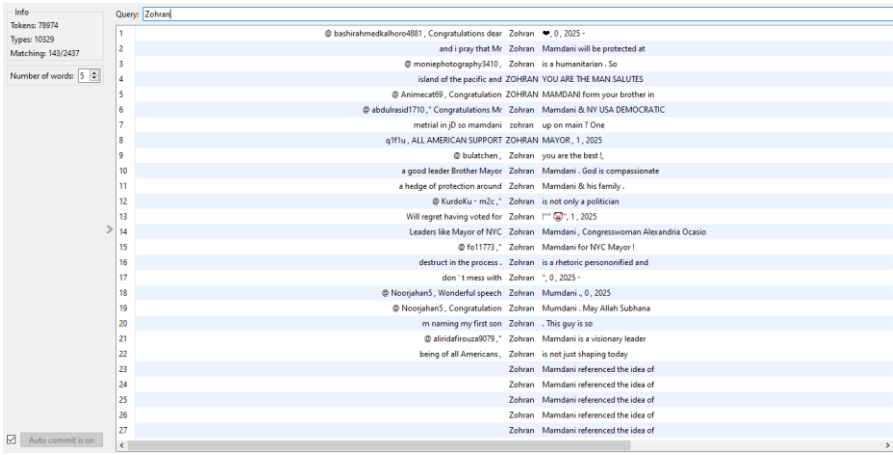
the new generation. The frequent use of *God* (118) in public discourse signifies that people welcome him with blessings.

Figure 6: *Heat Map of the dominant sentiments*



The *heatmap* in the figure above shows the sentiment map of positive, negative, neutral, and compound sentiments in the corpus. The colours range from dark blue to bright yellow, with blue representing less intense sentiments and yellow the most intense. It reveals that the discourse surrounding Mamdani's win was predominantly positive, with only a few isolated clusters exhibiting higher positivity. The lowest sentiment score recorded was 0.926, indicating that many comments were strongly negative and less positive. The likes metric also aligns with sentiment scores, demonstrating how public engagement correlates with emotional tone. The highest engagement, with 1,356 likes, was concentrated in a few supportive comments. Most of the dataset clustered in the blue range of negative values, confirming that negative sentiment dominated public reactions, while positive responses were scarce but garnered significant likes.

Figure 7: *Concordance Lines of the Lemma 'Zohran'*



The *concordance* lines in the figure above show the keyword *Mamdani* in its left-right linguistic context. Examples such as "Congratulations Zohran" and "and I pray that Mr. Zohran will be protected," reflect people's concerns about him, depict their happiness with his victory, and hope for something new. Some viewers are linking him to terrorism just because he is an Asian Muslim. Some are rejecting him, calling him an immigrant, attacking his identity rather than his political debates.

4.1 Dominant Themes in the Data

4.1.1 Hope for Change and Emotional Uplift from Mamdani's Speech

One of the strongest themes observed in people's reactions is renewed hope (the lemma *hope* appeared 165 times in the public corpus as collocate with the lemma *Mamdani*). "Powerful message, his speech has me in tears of hope, joy, and faith. Please protect him!" as this voice asserts that Mamdani's victory appears to be the turning point of the city, his words were deeply meaningful for them. "What a colossal relief!!! Finally, a decent, strong, hugely competent, intelligent, kind, and emotionally intelligent person and leader who has earned office!!! At last!!" As this commenter emphasizes, Mamdani's words signal possibility: a leader can be empathetic, knowledgeable, and human-focused. Many viewers' words convey joy, faith, relief, and even tears as they link this win to a better future for New Yorkers and beyond. Many responses were, for instance, "Hope is Alive !!"

This analysis of the public responses also demonstrates how emotionally invested they are, as they do not speak like detached observers;

they have finally seen a leader who represents their values and can speak for their rights. Hope, inspiration, and finally, words appear frequently in responses. This victory gives them reason to believe in this political system again. They portray Mamdani as a sincere, intelligent, and strong person who offers hope to the hopeless and challenges an unjust political environment. Many people have been waiting for a change in leadership and political decisions, such as high costs. Some viewers were even crying, which indicates how symbolic this moment feels. In response to this speech, people's reactions have gone beyond typical political responses because his words convey a sense of victory, signalling trust; people are finally meeting someone who expresses honesty and determination. Moreover, "So powerful. Hope is ALIVE!" also indicates people's trust and hope for change.

4.1.2 Viewers' Celebration, Blessings, and Global Support for Mamdani

Another key finding is the huge wave of celebration *(*as reflected in the frequent use of lemmas such as *congratulations* (122) and *blessings* (101)), not only in New York but around the world. A viewer of his speech responded, "Congratulations Zohran Mamdani, a huge love from Bangladesh 👏BD♡," and "Best of luck, god bless you from India." People from many countries, such as Uganda, Bangladesh, India, Pakistan, Malaysia, Georgia, and Germany, are happy and cheering for Mamdani's victory, as it symbolizes unity. Viewers illustrate immense joy, pride, and admiration. A recurring theme is the sacred tone/religiously motivated, where viewers wish him: "God bless you," "May God protect him," and "Allah protect him", which indicates that the responses were heartfelt, not only political.

With Mamdani, people present safety, well-being, and divine protection, which demonstrates esteem and worry for Mamdani's future responsibilities. From viewers' responses, a personal connection has also been indicated, as viewers called him "brother," "great leader," "amazing," and "we love you, Zohran." They are celebrating his victory and the character they see in him. The overflow of love also shows that Zohran has a powerful emotional connection with communities worldwide that see him as a change agent for New Yorkers. This victory is so lively for the people, as their reactions worldwide show, filled with hearts, flags, emotions, and exclamations.

4.1.3 Anti- Muslim and Anti-Immigrant Hate towards Mamdani (Identity Crisis)

The analysis of the data also revealed a dominant theme of hate and identity crisis (the lemma hate appeared 19 times in the corpus) towards Mamdani, as he is an immigrant (15 occurrences as a collocate with the lemma

Mamdani) and Muslim, which is evident in the users' responses. These hate responses not only depict the social identity but also the religious identity crisis in American society. They have targeted the speaker's ethnicity and background, depicting Muslims as dangerous, not capable of trust. For instance, "Muslim = Violence, hate, fear, control. Always." indicates that users have generalized all *Muslims* (72) as dangerous and violent, as is clear from their responses. Many of the viewers have stereotyped Muslims by calling them terrorists and immigrants. For instance, "Muslim terrorists… scared of America – interesting!" shows Islamophobic traces. Some have written "you are not welcome in our country!" demonstrating anti-immigrant sentiment by pointing out that he does not belong in America, though a resident. This online debate about his victory speech has become identity-based rather than political. The intensity shows how deeply prejudice is rooted in American society, making it the dominant recurring pattern in the dataset.

4.1.4 Gender Inclusivity

Mamdani's victory speech on the side has provided hope to many; however, he has not forgotten to talk about supporting *transgender people* (this lemma appeared once as a collocate with the lemma *Mamdani*). He is of the view that "New York City would be a place for everyone and stand up for those we love. Whether you are an immigrant or a trans person in the trans community, your struggle is ours too, so he wanted to treat all equally". Many viewers disagreed with this perspective and reacted to it. They have shown hatred towards transgender identity. Many users have negated the legitimacy of marginalized groups, using religion and biology to insult and nullify a person's gender by limiting it to only binary genders. For example, "There are ONLY TWO genders, dude" indicates that they reject transgender identity by implementing a fixed definition of gender. The responses towards Mamdani's perspective of gender inclusivity are mostly negative, harsh, as they were mocking the natural gender intentionally, they are misgendering the expressions of persons' gender, as it is evident from this example, "Male trying to look like a female – sad." Some deny the women's identity in the trans community by persisting that they can never be female, insulting their expressions of gender, and restricting and silencing their voices, as indicated by "If it is trans, then it is not female." Some responses used religious reasoning to nullify trans identity and implement misgendering, as shown in "God does not make mistakes. You are a man." These reactions have framed transgender identity as unnatural, immoral, or dishonest. The tone is mocking, neglectful, and emotionally charged, deeply discomforting, heartbreaking, and

prejudiced. This opposition focuses not on behaviour or actions but on identity, creating transphobia, the recurring dominant pattern in the dataset.

4.2 Analysis

The findings from sentiment analysis and thematic analysis provide a deep understanding of public reaction towards Mamdani's victory. The VADER sentiment scores indicate the highest positive sentiment and the lowest negative sentiment. VADER, which stands for Valence Aware Dictionary and sEntiment Reasoner, is a lexicon and rule-based sentiment analysis tool particularly well-suited for analysing social media and online comment data, making it an appropriate choice for this study. A positive score indicates public support for Mamdani, reflecting widespread enthusiasm and approval from viewers who celebrated his historic win. In contrast, a negative score was associated with identity-based attacks and disagreement over his views, revealing a vocal minority whose opposition was rooted in prejudice rather than policy critique.

The word cloud feature reveals the most frequently occurring words in the dataset. The most common keywords included 2025, New York, people, Mamdani, hope, NYC, Zohran, and others, all of which were central to the discussion. The prevalence of words such as "hope" and "people" underscores the emotional and democratic dimensions of public engagement, suggesting that many viewers connected with Mamdani not merely as a political candidate but as a symbol of broader social progress. The Heatmap shows that negative sentiment dominates the others in certain comment clusters, particularly in threads where discussions shifted toward identity and cultural values. This uneven distribution of sentiment across comment sections suggests that the nature of engagement varied significantly depending on the sub-topic being discussed. Concordance lines and the frequent collocates further highlight that the lemma Zohran has appeared with both positive and negative collocates. Positive collocates included terms such as "inspiring," "historic," and "change," while negative collocates frequently involved divisive and politically charged language. This duality in collocation patterns reinforces the complex and polarized nature of public discourse surrounding his victory.

The dominant themes in the current study reveal that Mamdani's victory has reignited hopes among the general public, who now consider him a champion of individual and communal rights. His election has been interpreted by many as evidence that diverse voices can break into spaces historically dominated by a narrow political elite. There were widespread blessings, celebrations, and support for Mamdani, particularly from Muslim communities and progressive voter bases who viewed his win as both a

personal milestone and a collective triumph. On the other hand, the findings also reveal that he has been widely criticized due to his social and religious background, with detractors questioning his identity and values rather than engaging with his political platform in any substantive way.

5. CONCLUSION

This study was designed to analyse public reactions to Mamdani's victory. By using Orange to extract sentiment scores and conducting thematic analysis of comments posted on the official YouTube video of Mamdani's victory speech, the study reveals a deeper layer of feelings among viewers. Orange, a data mining and machine learning platform, enabled the researchers to systematically quantify emotional tones across hundreds of viewer comments, providing a robust computational foundation for the subsequent qualitative analysis. The researchers identified several dominant themes that were overwhelmingly positive. Many expressed hope for change and emotional uplift, reflecting the joy, hope, and inspiration that his victory inspired. Viewers felt that a significant shift in politics could lead to improvements in the unjust political and social environments. Comments frequently referenced themes of equality, representation, and the long-overdue recognition of marginalized communities within mainstream American politics. Another prominent theme was celebration, blessings, and global support for Mamdani. Many expressed happiness with his victory and offered divine blessings in a sacred tone. International viewers from South Asia, Africa, and the Middle East were particularly vocal, demonstrating that Mamdani's win resonated far beyond the borders of New York City and carried symbolic weight for Muslim communities worldwide.

However, the study also noted instances of anti-Muslim and anti-immigrant sentiment directed at Mamdani. A significant number of comments reflected identity-based attacks, labelling Mamdani as a terrorist and an immigrant who did not belong among them. These hostile remarks, while constituting a minority of the overall discourse, were notable for their intensity and the degree to which they relied on stereotyping rather than substantive political critique. Such responses highlight the persistent challenges faced by minority candidates in navigating public perception and combating deep-rooted prejudice. Lastly, there was a debate surrounding gender diversity versus binary gender issues that overshadowed political discussions. Rather than engaging with Mamdani's political views, many viewers focused on his stance on gender inclusivity, with some favoring it and others rejecting it due to religious or cultural influences. This polarization suggests that social issues continue to dominate public political conversations, often at the expense of

policy-centred debate. Overall, the study concludes that the public views Mamdani's victory as a refreshing change in the U.S. political spectrum, marking the first time a Muslim has been elected as mayor of a city with global influence.

6. CONTRIBUTION OF THE STUDY

The main contributions of this research are its examination of sentiments in public discourse on politics, the use of Jupyter Notebook for data retrieval through Python coding, and the use of *Orange* software, which allows the researchers to organise comments into categories, such as positive and negative. This made it easier for the researchers of the current study to identify patterns and emotions in public-initiated political discourse, understand how people react to political speeches and messages, and form opinions. This study provides a lens for future researchers to examine sentiments of public discourse on political activism and mass mobilisation.

7. LIMITATIONS OF THE STUDY AND SUGGESTIONS FOR FUTURE RESEARCH

This study is limited to YouTube users' comments because the researchers designed the Python code to retrieve YouTube data using an official YouTube API key. YouTube was selected because it allows longer, less restricted comments, which provide richer qualitative data. Although this study provides valuable insights for future researchers, there are still areas that warrant further research, as they can yield different coding for platforms such as *Facebook*, *Twitter*, *Instagram*, or *TikTok* to analyse political speeches from distinct regions. They can compare public responses to posts from multiple national and international political leaders.

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