Sentiment analysis of social media posts on Nigerian government's image and reputation in a period of economic strain and social distrust

*JAMES AONDOWASE ASHIEKPE, PH.D.

Abstract
This study leverages social media sentiment analysis to evaluate public opinion on the Nigerian government's image and reputation during a period of economic strain and heightened social distrust. Anchored in Social Identity Theory, the research aims to understand how the public perceives the government's image by analyzing social media sentiments within the context of ongoing economic challenges. Sentiment analysis, the core research design, was used to examine social media data, revealing prevailing attitudes and key issues related to government actions and policies. The findings indicate a predominantly negative sentiment toward the government, primarily driven by dissatisfaction with economic performance, rising living costs, and widespread hardship. However, the analysis also uncovered pockets of support for certain government policy reforms and initiatives aimed at addressing the crises. The study concludes that in today's digital era, AI-driven tools like sentiment analysis and opinion mining are crucial for monitoring and interpreting public sentiment toward the government and its policies. It recommends that the Nigerian government adopt these technologies to better understand and respond to citizen concerns, particularly in the face of socio-economic challenges. Additionally, the study suggests real-time sentiment analysis for effective government reputation management, proactive engagement with public concerns to rebuild trust, tailored communication strategies for different social groups, and the implementation of fact-checking initiatives to promptly address misinformation and counteract negative sentiment.
Key Words: Sentiment Analysis, Social Media, Public Perception, Government Image and Reputation, Social Distrust Management

Introduction

In the sphere of public relations and strategic communication, what other people think has always been an important piece of information for the decision-making process. Public opinion directly impacts reputation management, strategic communication, and successful implementation of policies and programmes. Positive public sentiments enhance credibility and foster supportive relationships, while negative perception can damage reputation and undermine trust (Coombs & Holladay, 2022). Tailoring communication strategies to align with public opinion ensures messages resonate effectively, mitigating crises and promoting favourable narratives (Valentini & Sriramesh, 2024). Moreover, public perception influences public behaviour and support, which are essential for policy performance and success (Gilardi & Wüest, 2023). Thus, effectively monitoring and responding to public opinion is vital for maintaining a positive image and achieving strategic goals.

The contemporary digital era has made social media an integral part of daily life, serving as a platform for individuals to express their opinions, share experiences, and engage in public discourse on

About the Author
* James Aondowase Ashiekpe, Ph.D. is of the Department of Mass Communication, University of Jos, Jos, Nigeria.

JCMR Journal of Communication and Media Research, Vol. 17, No. 1, April 2025, pp. 155-167.

Article Citation
Ashiekpe, J. A. (2025). Sentiment analysis of social media posts on Nigerian government's image and reputation in a period of economic strain and social distrust. *Journal of Communication and Media Research*, 17 (1): 155-167.

diverse issues. The rise of social media as a dominant platform for public discourse has significantly influenced how citizens engage with and perceive their governments (Hameleers & Schmuck, 2021). The increasing penetration of social media in Nigeria has transformed the landscape of public opinion and political communication. Over the past decade, Nigeria has experienced significant internet penetration, leading to widespread use of social media platforms such as Facebook, X, Instagram, TikTok and YouTube. This digital revolution has introduced new dynamics in how information is disseminated and consumed, which has profound implications for government image and reputation management, especially in a context marked by economic challenges and social distrust (Wang, Reger & Pfarrer, 2021).

Nigeria's economy has been under significant strain due to various factors, including fluctuating oil prices, inflation, high unemployment rates, corruption, weak government policies, and widespread poverty (Akomolafe & Salau, 2022). These economic challenges have led to public dissatisfaction and have heightened scrutiny of government policies and actions. The economic strain is a critical backdrop against which public sentiment towards the government such as the recent #EndBadGovernanceInNigeria protests is shaped. Between 2016 and 2024, Nigeria experienced significant economic challenges and social unrest, primarily due to high inflation and a sluggish global economy (African Development Bank, 2024). The economic crisis in Nigeria worsened with the removal of fuel subsidy in May 2023, which saw inflation surge from 18.8% in 2022 to 24.5% in June 2023, due to rising fuel costs and a depreciating Naira. By October 2024, Nigeria was experiencing its most severe cost-of-living crisis in nearly three decades, with deepened poverty and widespread public frustration as a result of economic hardship, high inflation, and rising food and transportation costs (Oaikhena & Ibebunjo, 2024). Given the prevailing economic strain and its attendant harsh impact, which has heightened social distrust, social media platforms like X, Facebook, Instagram, TikTok and YouTube have become crucial spaces for Nigerians to express their opinions, frustrations, and expectations regarding government actions and policies. The sheer volume of data generated on these platforms presents an opportunity to harness Artificial Intelligence (AI) for sentiment analysis, offering insights into the public's perception of government image and reputation (Chakraborty, Basu & Dutta, 2022). AI-driven sentiment analysis enables the systematic examination of vast amounts of social media content, allowing for the identification of trends, patterns, and overall sentiment towards government initiatives.

The severe economic strain heightened growing social distrust leading to eruption of nationwide protests in August 2024, resulting in clashes with security forces (Yu, 2024). As Nigeria grapples with the economic challenges and rising public distrust, the government's ability to maintain a positive public image and foster trust among its citizens is increasingly vital. Social media sentiment analysis can serve as a valuable tool for understanding the complex dynamics of public opinion, helping policymakers and government officials to better respond to the concerns and needs of the populace. By analyzing the sentiments expressed online, this study aims to shed light on the public's perception of government actions and the factors contributing to the erosion or enhancement of government reputation in Nigeria.

Statement of the Problem

The Nigerian government is facing a critical challenge in maintaining public trust and a positive image amidst ongoing economic difficulties and widespread social dissatisfaction. Traditional methods of gauging public opinion, such as surveys and polls, are often limited by sample size, reach, and time constraints, making it difficult to capture the real-time, nuanced sentiments of a diverse population. Furthermore, the rapid proliferation of social media as a primary communication channel has shifted the landscape of public opinion formation, where the voices of discontent and approval are amplified. The absence of comprehensive, data-driven tools to analyze these sentiments has left a gap in understanding the true public perception of government actions. This study, thus addresses the problem by leveraging AI-driven sentiment analysis to assess the public's opinion of the Nigerian government's image and reputation, as expressed on social media. The core issue lies in the need for accurate, timely, and scalable methods to analyze and interpret public sentiment in a way that informs government strategies and communication efforts. Without such tools, the government risks misjudging public sentiment, which could lead to further erosion of trust and a decline in reputation, particularly in a time of economic strain.

Research Questions

Based on the statement of problem, the following research questions are put forward to guide data collection:

1. What were the sentiments of social media posts related to the Nigerian government's image and reputation amid the prevailing economic challenges?
2. What are the key themes and issues dominating public discourse on social media regarding the Nigerian government?
3. How is the economic strain driving public's perception and trust of the Nigerian government as expressed on social media?

Social Media and Public Opinion

The rise and proliferation of new media technologies that have enabled easy access to social media, has expanded the avenues by which people share information and viewpoints and participate in societal processes. Social media has fundamentally transformed the way public opinion is precipitated, formed, disseminated, and understood. Unlike traditional media, which often involves one-way communication, social media platforms such as Facebook, X, Instagram and TikTok allow for interactive, real-time exchanges between individuals and institutions, thereby shaping public opinion in dynamic ways. The immediacy and accessibility of social media enable users to engage in public discourse, share opinions, and mobilize around issues in unprecedented ways, often amplifying voices that might otherwise be marginalized (Larsson, 2023).

Some scholars have studied the role of social media as an information and participation equalizer, emphasizing its potential to broaden political participation by reducing barriers to access and amplifying marginalized voices. Research indicates that social media platforms enable more inclusive political engagement by providing a space for diverse groups to participate in discourse and mobilization, which traditionally may have been limited by geographic, socioeconomic, or institutional constraints (Theocharis & van Deth, 2018). Additionally, studies highlight that social media fosters a more participatory political environment by offering alternative avenues for political expression and organization, thereby leveling the playing field for individuals who might otherwise be excluded from traditional political processes. In a social network, anyone online can publish information and give opinions, a phenomenon described as the flattening of hierarchies, with media consumers becoming producers (Loader, Vromen, & Xenos, 2022). However, some scholars also caution that while social media can democratize participation, it can also reinforce existing inequalities if access to these platforms or digital literacy is unevenly distributed (Schradie, 2019).

Social media can exacerbate existing inequalities when access to these platforms or digital literacy is unevenly distributed, leading to a digital divide that reinforces social and economic disparities. Scholars argue that while social media has the potential to democratize information and participation, those without reliable internet access, adequate digital skills, or the financial means to engage online are left behind, further entrenching inequalities (Schradie, 2019). This digital divide disproportionately affects marginalized communities, limiting their ability to participate in online discourse, access crucial information, or engage in political and social activism (Robinson et al., 2020). Moreover, even among those with access, disparities in digital literacy can result in unequal participation, with more digitally literate individuals better able to navigate, contribute to, and benefit from social media platforms (Hargittai, 2020). Consequently, social media may inadvertently amplify existing inequalities rather than serving as an equalizing force.

Notwithstanding, in their study of the influence of having diverse social media and its influence on public opinion, Chen and van der Lans (2021) saw that the wide array of social media platforms available had provided people with more choices in getting and sharing information, although they 'only choose media within the bounds of their horizons' - those that are familiar and accessible to them. Compared to conventional media, the diversity of social media reduces the attraction of extreme opinions, leading to a dispersed opinion distribution that plays an important role in influencing public opinion. Such dispersion may bring those with the same opinions together. Individuals in a social network typically interact with their acquaintances with their chosen media and are attracted to opinions similar to those they hold.

This aligns with the premise of social identity theory (SIT) which helps to explain how social media shapes public opinion by reinforcing group identities and fostering in-group and out-group dynamics. On social media platforms, individuals often engage with content and communities that reflect their social identities, such as political affiliation, ethnicity, or gender, which can lead to the formation of echo chambers where group norms and beliefs are amplified. These echo chambers strengthen in-group solidarity while intensifying negative perceptions of out-groups, contributing to the polarization of public opinion (Cinelli et al., 2021). Social media thus becomes a space where identity-driven narratives are constructed and contested, with public opinion being shaped by the collective identities that users align with and express online (Xiong, Cho & Boatright, 2021).

As a rich resource for inferring public opinion, social media can provide a comprehensive understanding of public perceptions in less time and cost than survey polls (Dong & Lian, 2021). It provides a new way of representing and measuring public opinion, as shown in the increasing use of social media-based public opinion analysis in various fields, such as social science, media studies, advertising and public relations, corporate communication, politics, education, transportation, and finance (Nutsugah & Senanu, 2024). The advantages of social media over traditional surveys as a data source have been emphasized by different scholars (Murphy et al, 2014; Adams-Cohen, 2020). Its use in resolving the difficulty of obtaining time-series data, and the time-sensitive advantage of obtaining and gauging public sentiment on public policies has also been observed (Ibrahim & Wang, 2019; McGregor, 2019).

Social Media, Government Image and Reputation Management

As critical platforms for shaping public perception and managing the image and reputation of governments, social media platforms offer both opportunities and challenges for governments in maintaining a positive public image. Social media provides governments with opportunities to engage directly with citizens, monitor public sentiment in real-time, and respond swiftly to concerns, which helps shape public perception and manage their image and reputation (Uysal, 2024). Additionally, by leveraging social media's wide reach and interactive nature, governments can proactively communicate their policies and successes, thereby enhancing transparency and trust among the public. However, by creating echo chambers, and spreading or amplifying misinformation social media poses significant challenges for governments in shaping public perception, as it can deepen polarization and distort public understanding of government actions (Lim & Jiang, 2024). These dynamics make it difficult for governments to manage their image and reputation effectively, as false narratives and biased opinions can spread rapidly, undermining efforts to build trust and transparency. As social media continues to evolve, understanding its impact on public opinion is crucial for maintaining healthy democratic processes. While it offers unprecedented opportunities for public engagement and discourse, it also presents significant challenges in ensuring that public opinion is informed, balanced, and reflective of a diverse range of perspectives (Valentini & Sriramesh, 2024).

Unlike traditional media, which is often controlled by state or private entities, social media allows for more democratized and real-time communication. This shift has empowered citizens to influence government reputations directly by voicing their opinions online. For instance, in Nigeria, social media has been a crucial tool for mobilizing public opinion on government policies, particularly during periods of economic hardship (Okafor, 2021). Social media's immediacy and reach mean that public sentiment can rapidly change and spread, significantly impacting government reputation. Social media's immediacy and vast reach enable public sentiment to shift and proliferate quickly, as platforms like X and Facebook facilitate real-time communication and instant sharing of information across large audiences (Larsson, 2023). This rapid dissemination can amplify both positive and negative sentiments, often leading to swift changes in public opinion that can impact societal and political dynamics (O'Brien & Selby, 2022). Moreover, the viral nature of social media content means that public sentiment can spread globally within minutes, making it a powerful tool for both mobilizing support and sparking controversy (Stieglitz et al., 2022).

The concept of government image refers to the public's perception of the government's actions, policies, and overall character, while reputation encompasses the long-term accumulation of these perceptions (Grunig & Hon, 2020). Governments must actively manage their image and reputation to maintain public trust and legitimacy. In the context of social media, image and reputation management involves monitoring public discourse, engaging with citizens, and responding to concerns in a timely and transparent manner. Research suggests that a positive government image on social media can lead to increased public trust and cooperation, while negative perceptions can result in public dissent and a decline in government legitimacy (Kim, 2022). The ability of governments to engage effectively on social media platforms is crucial for maintaining a favourable reputation. Governments that are perceived as responsive, transparent, and accountable tend to enjoy higher levels of public support (Lee, 2023). Conversely, governments that fail to address public concerns on social media may suffer reputational damage, which can have long-lasting effects on their legitimacy and effectiveness.

To effectively manage their reputation on social media, governments need to adopt a proactive and strategic approach. This includes regular monitoring of social media platforms to gauge public sentiment and identify emerging issues. Advanced analytical tools, such as AI-driven sentiment analysis, can help governments understand the nuances of public opinion and respond appropriately (Chakraborty et al., 2022). Engaging with citizens directly on social media is also crucial for building trust and demonstrating accountability. Governments that actively participate in social media conversations and address concerns in a transparent manner are more likely to maintain a positive reputation. Additionally, crisis communication is an essential component of social media reputation management. In times of crisis, such as political scandals, the government's ability to communicate quickly and effectively on social media can significantly impact public perception (Coombs, 2022). As social media continues to evolve, governments must adapt their communication strategies to maintain a positive image and ensure long-term public trust. Governments must be prepared to address crises head-on, providing accurate information and updates to prevent the spread of misinformation and mitigate reputational damage.

Theoretical Framework

This study is underpinned by the tenets of the Social Identity Theory (SIT), offering a perspective through which to examine how individuals' affiliations with social groups influence their perceptions and behaviours regarding government policies.

Social Identity Theory (SIT), first introduced by Henri Tajfel and John Turner in the 1970s, continues to be a critical theoretical framework in social research, providing a critical lens for understanding how group memberships shape individuals' perceptions, opinions and behaviours. SIT posits that individuals categorize themselves and others into various social groups, such as ethnic, religious, or political affiliations, which then become integral to their self-concept (Hogg, 2016). The theory highlights the processes of social categorization, social identification, and social comparison, which shape how individuals perceive and interact with others based on their group affiliations. Social categorization according to theory involves the classification of individuals into groups based on shared characteristics, simplifying social perception but often leading to in-group favoritism and out-group bias (Turner & Oakes, 2022). Social identification refers to the adoption of the identity of the group, to which one belongs, impacting self-esteem and influencing behaviour in alignment with group norms (Hogg & Williams, 2023). Social comparison occurs when individuals compare their in-group to relevant out-groups, often to maintain a positive social identity, which can result in prejudice or intergroup conflict (Abrams & Hogg, 2021).

Recent research has emphasized the relevance of SIT in digital environments, particularly on social media, where group identities are highly visible and can significantly shape public discourse (Reicher, Haslam, & Hopkins, 2020). On platforms like X, Facebook, Instagram, TikTok and YouTube, expressions of frustration and distrust towards governments are often driven by group identities, with individuals aligning their opinions with their in-group's stance, thereby reinforcing their social identity (Klein et al., 2019). The Social Identity Theory is applicable to the study as it helps analyze how Nigerians' social group affiliations shape their perceptions and sentiments towards government image and reputation, particularly during these times of economic strain and heightened social distrust. Through the sentiment analysis, the patterns of in-group favoritism or out-group bias in responses to government policies amid the economic strain will be revealed. By analyzing these group-based sentiments, researchers and policymakers can better understand how social identities impact online public opinion and address issues of distrust and dissatisfaction effectively. Overall, Social Identity Theory will provide understanding on how group membership influences social behaviour, especially in the context of social media, where identity-driven dynamics play a central role in public opinion formation and the expression of collective sentiments like distrust in government.

Method of Study

The study utilizes sentiment analysis as the research design to collect quantitative data in order to provide a deeper dimensional insight and understanding into public opinion of government image and reputation in Nigeria amid the prevailing economic crisis and rising social distrust that has resulted from the cost-of-living crisis triggered by the fuel subsidy removal of 2024. Although sentiment analysis is an offshoot of machine learning (ML), Data Mining (DM), Natural language processing (NLP), and computational linguistics, it is increasingly becoming a key research design in the social sciences and humanities (Klinger & Schwab, 2023). Sentiment analysis techniques enables researchers to analyze and categorize people's feelings, opinions, emotions and sentiments expressed in textual data via social media platforms (Cohn & Storer, 2022).

Sentiment analysis is a growing popular technique for gauging public sentiment regarding an event (Yaqub, et al. 2017). For this study, X and Facebook users were chosen as the population of the study, given their popularity, data richness, and user diversity; most suitable for using time series sentiment analysis for calculating sentiment of users' Posts, Likes, Comments, and Shares related to government policies and economic conditions. The month June, 2024 was also chosen because, it marked the peak of economic strain and attendant social distrust arising from the fuel subsidy removal. The popular VADER library available in python which is specially tuned for calculating sentiment for social media was utilised to generate a sample of 2852 messages from X, and 2148 messages from Facebook. The ADER library takes into account the emojis and spelling errors that are very pervasive in social media messages, some which are deliberate. Most importantly, it does not require any extensive text pre-processing. In addition, it assigns a negative, positive, neutral and compound score to text messages. The BERTopic library which uses state of the art Transformer based embeddings was employed for doing topic modeling. Topic modeling is an unsupervised machine learning technique that scans corpus of documents and clusters words based on similarity between them (Syed & Spruit, 2017).

Results

Following data collection and preprocessing steps undertaken to clean the data in order to remove noise, special characters, and irrelevant content, the data is normalized for analysis.

Results of the data presented is interpreted and visualized through sentiment graphs and heatmaps, providing insights into public perception and opinion on government image and reputation amid the economic challenges and rising social distrust in Nigeria.

Table 1: Type of Social Media Messages Used for Sentiments

X	Frequency	Facebook	Frequency	Total	Percentage
Posts	498	Posts	669	1167	23.34%
Likes	971	Likes	377	1348	26.96%
Comments	1075	Comments	986	2061	41.22%
Shares	308	Shares	116	424	8.48%
Total	2852	Total	2148	5000	100%

The data collected for the study show that social media (X and Facebook) users in Nigeria expressed their sentiments on government image and reputation amid the pervading economic challenges and rising social distrust through 'posts, likes, comments, and shares.' The data which is presented in table 1 reveals that comments on social media posts accounted for the highest number of sentiments expressed, implying most of the users keenly followed people with shared sentiments and expressed their opinions using the comments section. This is in consonance with the premise of social identity theory which states that individuals categorize themselves and others into various social groups, such as ethnic, religious, or political affiliations, which then become integral to their self-concept. Haven shown the social media messages used in expressing opinion and sentiment on government image and reputation, the next phase is to present data that directly responds to the research questions.

Research Question 1: What is the sentiment of social media posts related to the Nigerian government's image and reputation amid the prevailing economic challenges? In order to determine the sentiments expressed by Nigerian social media users that have implications for government's image and reputation amid the prevailing economic challenges, posts that provoked emotions and discussions related to the economy and governance issues were generated from X and Facebook posts, likes, comments and share using the BERTopic library dataset as presented in the bar chart in Figure 1.

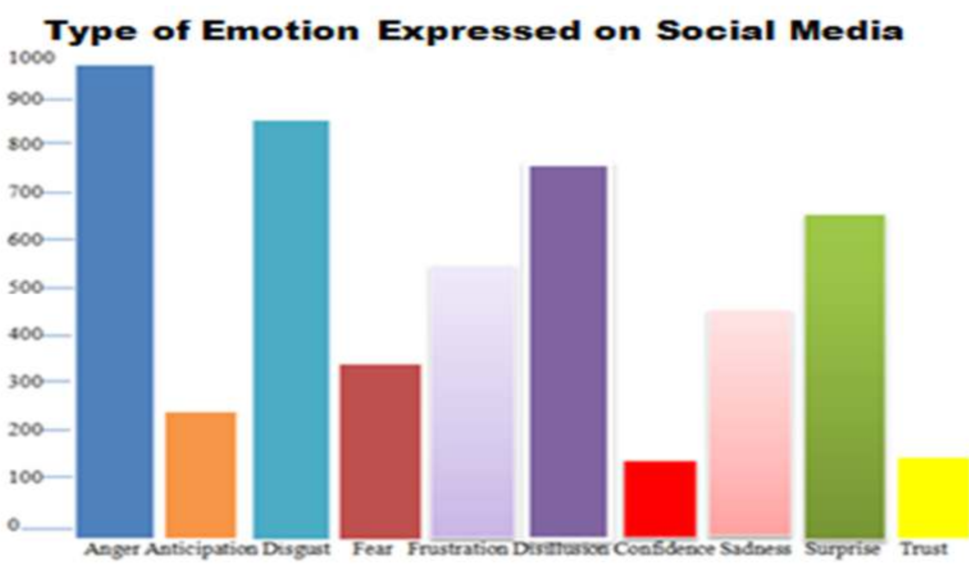

Figure 1: Bar Chart of Emotions Expressed on Social Media

Data represented in the bar chart shows varying emotions by Nigerian X and Facebook users towards the Nigerian government handling of the economic challenges which have become topical issues of discuss on social media. Emotional score shows that emotions expressed via the posts, likes, comments and share were dominated by anger, followed by disgust, disillusion, and surprise as well as frustration and sadness; with a percentage score of 19.36%, 16.82%, 15.24%, 13.02%, 10.62% and 8.30%respectively. This shows a high sense of despair and disappointment in the handling of the economy, and distrust towards government's reforms and policies. Nevertheless, the bar chart shows also that the posts, likes, comments and share reflect emotions of fear, anticipation, confidence, and trust fear regarding the government's economic reforms, policies and governance, with emotional score percentages of 6.36%, 4.34%, 3.56%, and 2.38% respectively.

The dominance of negative emotions such as anger, disgust, and disillusionment among Nigerian social media users reflects a significant erosion of trust in the government's ability to manage economic challenges, as viewed through the lens of social identity theory. This widespread negativity indicate a strong in-group identification with shared sentiments of frustration and disappointment, which can reinforce collective discontent and further alienate the public from the government. The lower percentages of positive emotions like confidence and trust suggest that the government's efforts at reform are failing to resonate with the public, deepening the divide between the government's perceived identity and the public's expectations.

Research Question 2: What are the key themes and issues dominating public discourse on social media regarding the Nigerian government? To enable appropriate data collection in response to this research question, the WordItOut app was used in generating a word cloud presented in Figure 2.

Figure 2: Word Cloud of Social Media Frequently used words on the Economic Crisis

From figure 2, it can be observed that the word 'governance' is the most prominent in the social media sentiments. It is clear that the discussions are dominated by political and economic terms such as 'policies', 'actions', 'hardship', 'reforms', 'social welfare' and 'public interest'. Moreover, as expected in a discussion related to Nigerian politics and the economy, the names 'Tinubu', 'Buhari' and 'IMF' also appear frequently. A frequency count of the top sixteen words that featured most prominently in the discussions from the datasets reveal that

Governance, economy, policies, actions, hardship, reforms, cost of living, public interest, Tinubu, Buhari, IMF, frustration, hunger, tariff hike, social welfare, and dialogue are the most prominent words used in discussions on social media regarding the raging economic crisis in Nigeria. In the data set, governance appeared 1,069 times; economy, 977; policies, 754; actions, 547; hardship, 468; reforms, 386; cost of living, 345; public interest. 157; Tinubu, 136; Buhari, 113; IMF, 102; frustration, 98; hunger, 78; tariff hike, 61; social welfare, 53; and dialogue appearing 42 times.

The prominence of terms like "governance," "economy," "policies," and "hardship" in social media discussions reflects a collective identity centered emotions around dissatisfaction with the Nigerian government's handling of economic issues, as understood through social identity theory. The frequent mention of political figures like Tinubu and Buhari, along with institutions like the IMF, suggests that public sentiment is heavily influenced by these key actors, further shaping the in-group's perception of government competence. This focus on negative terms highlights a shared narrative of frustration and disillusionment among the public, potentially leading to increased polarization and a weakened government reputation.

Research Question 3: How is the economic strain driving public's perception and trust of the Nigerian government as expressed on social media? To determine how the economic strain is driving public's perception and trust of the Nigerian government as expressed on social media, the VADER library available in python was utilised to generate a sentiment heatmap of words that were used positively and negatively in the X and Facebook posts, likes, comments and shares as shown in figure 3.

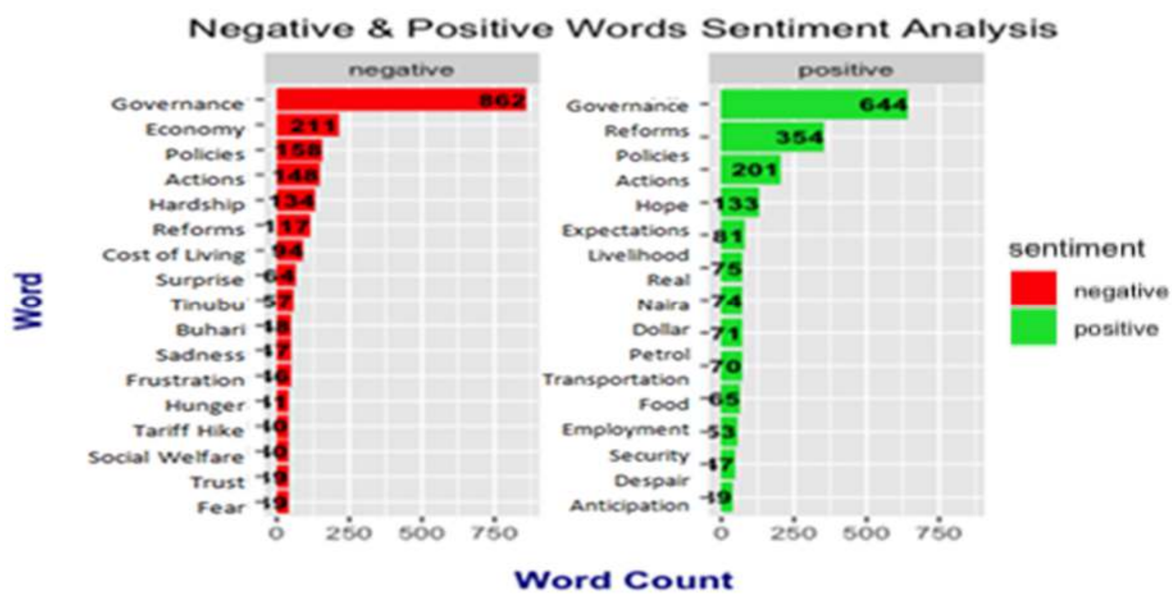

Figure 3: Negative/positive Sentiment Words Heatmap

The heatmap shows that words that were used negatively in discussing the economic crisis in Nigeria dominated the sentiments expressed on X and Facebook. The frequency count of the heatmap shows that the words 'governance, economy, policies, actions, hardship, reforms, cost of living, surprise, Tinubu, Buhari, sadness, frustration, hunger, tariff hike, social welfare, trust and fear' were used on X and Facebook posts, likes, comments and shares to express negative emotions and displeasure towards the government regarding the economic situation in the country and government's approaches to handling the situation. Nevertheless, the words 'governance, reforms, policies, actions, hope, expectations, livelihood, real, naira, dollar, petrol, transportation, food employment, security, despair, and anticipation' were used in the X and Facebook posts, likes, comments and shares to express optimism and hope towards government policies and reforms. Overall, the negative sentiments dominated X and Facebook discussions on the prevailing economic situation with a frequency count of 1,008 posts, 1,122 likes, 1,867 comments and 332 shares; while the positive sentiment messages recorded a frequency count of 159 posts, 226 likes, 194 comments and 92 shares.

The dominance of negative sentiments expressed on X and Facebook regarding the Nigerian government's handling of the economic crisis suggests a strong collective identification with frustration and dissatisfaction among the public, as explained by social identity theory. This shared negative perception reflects a widespread in-group sentiment that views the government's policies and actions as inadequate, potentially deepening social divisions and eroding trust in government institutions. Although some optimism and hope were expressed, the overwhelming prevalence of negative emotions underscores the challenge the government faces in reshaping its image and rebuilding public trust amid the economic strain.

Discussion

This study utilized AI-driven sentiment analysis to explore public opinion on the Nigerian government's image and reputation amid economic strain and social distrust, with an analytical framework grounded in social identity theory. The findings, derived from sentiment graphs and heatmaps, reveal a predominantly negative sentiment expressed by Nigerian social media users on X and Facebook regarding the government's handling of economic challenges. The significant prevalence of negative emotions such as anger, disgust, disillusionment, and frustration is indicative of widespread public dissatisfaction and aligns with existing literature on social identity and public opinion during economic crises.

The literature on social identity theory, as discussed by Tajfel and Turner (1979), emphasizes that individuals' self-concept is strongly influenced by their membership in social groups, which in turn shapes their perceptions and attitudes. Recent studies have extended this theory to the context of political and economic crises, showing that in-group identification often intensifies during periods of social unrest (Smith et al., 2021). The high frequency of negative sentiments in this study reflects a strong in-group identification among Nigerian social media users, who appear to collectively express discontent with the government's economic policies. This finding is consistent with the work of Huddy et al. (2015), who argue that negative social identity in the context of governance can lead to increased polarization and reduced trust in government institutions.

Furthermore, the sentiment analysis revealed that positive emotions like confidence and trust were minimal, suggesting that the government's efforts to restore public confidence have largely failed. This is in line with recent research by Chan and Lee (2022), who found that government efforts to regain public trust during economic downturns are often undermined by entrenched negative perceptions, particularly in contexts where the public feels excluded from decision-making processes. The frequent mention of political figures such as Tinubu and Buhari, as well as institutions like the IMF, in social media discussions, underscores the personalization of blame and the role of prominent leaders in shaping public discourse. This aligns with findings by Schertzer and Woods (2020), who argue that political figures often become focal points for public dissatisfaction during economic crises, thereby amplifying negative sentiments within social identity groups.

The overall dominance of negative sentiments in social media discussions about the Nigerian government, as indicated by the frequency count of posts, likes, comments, and shares, highlights the significant challenges the government faces in reshaping its public image. This is consistent with the findings of recent studies by Elcheroth and Reicher (2021), who noted that negative public sentiment, once established, can be difficult to reverse, particularly when it is reinforced by ongoing economic hardship and social distrust. The findings of this study contribute to the growing body of literature on social identity theory and public opinion, particularly in the context of economic crises in developing countries. The implications for the Nigerian government are profound, as the persistent negative sentiments observed in this study suggest a deep-seated erosion of public trust that will require substantial efforts to address. Future research could explore the effectiveness of different government strategies in rebuilding trust and mitigating negative social identity during times of economic strain.

Conclusion

The study highlights the critical role of social media sentiment analysis in understanding public opinion on government image and reputation, particularly in the prevailing Nigerian context that is marked by economic strain and growing social distrust. The findings reveal that economic challenges significantly influence negative sentiments toward the government, with social media serving as a key platform for citizens to express their frustrations and concerns. This real-time data provides valuable insights into the specific issues driving public discontent, as well as the groups most affected by or vocal about these issues. It also highlights the opportunities on how governments and policymakers can leverage these technologies for real-time monitoring of citizen concerns, and respond more effectively to their needs particularly during periods of economic instability.

The findings of this study have significant implications for contemporary media studies, particularly in digital communication, political discourse, and public engagement as the study advances understanding of the intersection between AI, social media, governance, and digital public discourse, offering valuable insights into how media ecosystems shape and are shaped by political and economic realities. The study signifies that economic challenges often drive negative public sentiments about government policies, and highlights the role of social media in amplifying public sentiments and shaping narratives about government policies and actions.

References

Abrams, D. & Hogg, M. A. (2021). The social identity theory of intergroup behaviour. In K. S. McGarty & D. A. Stenning (Eds.), *The Psychology of Intergroup Relations* (pp. 58-77). Sage Publications.

Adams-Cohen, N. J. (2020). Policy change and public opinion: Measuring shifting political sentiment with social media data. *American Politics Research*, *48*(5), 612-621.

African Development Bank (2024). *Nigeria economic outlook 2024.* Retrieved from: https://www.afdb.org/en/countries-west-africa-nigeria/nigeria-economic-outlook

Akomolafe, F. & Salau, O. E. (2022). Nigeria's economic strain: The impact of oil price volatility and macroeconomic challenges. *African Development Review*, 34(3), 376-391.

Chakraborty, T., Basu, A. & Dutta, P. (2022). AI in reputation management: Opportunities and challenges. *Journal of Public Relations Research*, 34(2), 189-205.

Chan, M. & Lee, F. (2022). Government credibility in crisis: Rebuilding trust during economic downturns. *Journal of Public Relations Research*, 34(2), 145-161.

Chen, X., van der Lans, R., & Trusov, M. (2021). Efficient estimation of network games of incomplete information: Application to large online social networks. *Management Science*, *67*(12), 7575-7598.

Choy, C.H.Y. (2018). Online political public relations as a place-based relational practice: A cultural discourse perspective. *Public Relations Review*, 44(5), 752-761.

Cinelli, M., Morales, G. D. F., Galeazzi, A., Quattrociocchi, W. & Starnini, M. (2021). The echo chamber effect on social media. *Proceedings of the National Academy of Sciences*, 118(9), e2023301118.

Cohn, A. & Storer, C. (2022). Machine learning and natural language processing for social research: Integrating sentiment analysis into traditional methodologies. *Journal of Data Science and Humanities*, 8(4), 233-250.

Coombs, W. T. (2022). *Ongoing crisis communication: Planning, managing, and responding* (6th ed.). SAGE Publications.

Coombs, W. T. & Holladay, S. J. (2022). *The handbook of crisis communication* (3rd ed.). Wiley-Blackwell.

Dong, X. & Lian, Y. (2021). A review of social media-based public opinion analyses: Challenges and recommendations. *Technology in Society*, *67*, 101724.

Elcheroth, G. & Reicher, S. D. (2021). Social identity and collective behavior during economic crises. *European Review of Social Psychology*, 32(1), 79-115.

Gilardi, F. & Wüest, B. (2023). Public opinion and policy responsiveness: The role of public perception in political decision-making. *Journal of European Public Policy*, 30(2), 267-285.

Grunig, J. E. & Hon, L. C. (2020). *Guidelines for measuring relationships in public relations*. Institute for Public Relations.

Hameleers, M. & Schmuck, D. (2021). The role of public perception in the effectiveness of government communication: How trust and media influence policy support. *International Journal of Communication*, 15, 1885-1902.

Hargittai, E. (2020). Potential biases in big data: Omitted voices on social media. *Social Science Computer Review*, 38(1), 10-24.

Hogg, M. A. (2016). Social identity theory. In S. McKeown, R. Haji, & N. Ferguson (Eds.), *Understanding peace and conflict through social identity theory* (pp. 3-17). Springer.

Hogg, M. A. & Williams, K. D. (2023). Social identity theory: An overview. In E. J. G. Lopez & D. L. Gergen (Eds.), *Handbook of Social Identity Theory* (pp. 1-22). Cambridge University Press.

Huddy, L., Del Ponte, A. & Davies, C. (2015). Social identity and trust in government: Evidence from the U.S. and Europe. *Political Psychology*, 36(4), 477-493.

Ibrahim, N. F. & Wang, X. (2019). Decoding the sentiment dynamics of online retailing customers: Time series analysis of social media. *Computers in Human Behavior*, *96*, 32-45.

Kim, Y. (2022). Government communication in the digital age: Enhancing public trust through social media. *Public Relations Review*, 48(1), 101998.

Klein, O., Spears, R. & Reicher, S. (2019). Social identity performance: Extending the strategic side of SIDE. *Personality and Social Psychology Review*, 23(4), 341-366.

Klinger, J. & Schwab, M. (2023). The role of sentiment analysis in social sciences and humanities research: Current trends and future directions. *Computational Social Sciences*, 5(1), 45-62.

Larsson, A. O. (2023). Social media's role in shaping public opinion: A longitudinal study. *New Media & Society*, 25(3), 563-582.

Lee, M. (2023). The role of social media in government transparency and accountability. J*ournal of Digital Communication and Media*, 7(1), 45-61.

Lim, J. S. & Jiang, H. (2024) How perceptions of dialogic communication and authenticity of CSR communication lead to trust and brand loyalty through online brand community engagement intention. *Journal of Public Relations Research*, 36(3), 233–257.

Loader, B. D., Vromen, A. & Xenos, M. A. (2022). *The networked young citizen: Social media, political participation, and civic engagement*. Routledge.

McGregor, S. C. (2019). Social media as public opinion: How journalists use social media to represent public opinion. *Journalism*, *20*(8), 1070-1086.

Murphy, J., Link, M. W., Childs, J. H., Tesfaye, C. L., Dean, E., Stern, M., ... & Harwood, P. (2014). Social media in public opinion research: report of the AAPOR task force on emerging technologies in public opinion research. *American Association for Public Opinion Research*.

Nutsugah, N. & Senanu, B. (2024). On the tech trek and industrial revolutions: Unravelling the impact of generative AI on public relations praxis in Africa. *Journal of Public Relations Research*, 36(4), 341–359.

Oaikhena, I. M. & Ibebunjo, O. (2024). Trust deficit: A lingering influence affecting Nigeria policy and governance. *Singaporean Journal of Business Economics and Management*, 9(3), 77-80.

O'Brien, T. & Selby, C. (2022). The dynamics of social media-driven public sentiment in political crises. *Journal of Political Communication*, 39(2), 145-164.

Okafor, U. (2021). Social media as a tool for political mobilization in Nigeria: A case study of the #EndSARS movement. *African Journal of Communication*, 10(3), 78-95.

Reicher, S., Haslam, S. A. & Hopkins, N. (2020). Social identity and the dynamics of leadership: Leaders and followers as collaborative agents in the transformation of social reality. *The Leadership Quarterly*, 31(2), 101-114.

Robinson, L., Cotten, S. R., Ono, H., Quan-Haase, A., Mesch, G., Chen, W., ... & Stern, M. J. (2020). Digital inequalities and why they matter. *Information, Communication & Society*, 23(5), 767-780.

Schertzer, R., & Woods, E. T. (2020). The role of leaders in framing public discourse during economic crises. *Journal of Political Communication*, 27(3), 354-370.

Schradie, J. (2019). *The revolution that wasn't: How digital activism favors conservatives*. Harvard University Press.

Smith, E. R., Seger, C. R., & Mackie, D. M. (2021). Can social identity theory explain group responses to economic crises? *Social and Personality Psychology Compass*, 15(5), e12596.

Stieglitz, S., Mirbabaie, M., Ross, B. & Neuberger, C. (2022). Social media analytics – Challenges in topic discovery, data collection, and data preparation. *International Journal of Information Management*, 58, 102318.

Syed, S. & Spruit, M. (2017). Full-text or abstract? examining topic coherence scores using latent dirichlet allocation. In *2017 IEEE International conference on data science and advanced analytics (DSAA)* (pp. 165-174). Ieee.

Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-47). Monterey, CA: Brooks/Cole.

Theocharis, Y. & van Deth, J. W. (2018). The continuous expansion of citizen participation: A new taxonomy. *European Political Science Review*, 10(1), 139-163.

Turner, J. C. & Oakes, P. J. (2022). Social categorization and social identity. In J. C. Turner & P. J. Oakes (Eds.), *Rediscovering Social Identity: Theories and Perspectives* (pp. 17-34). Routledge.

Uysal, N. (2024). Exploring the role of dialogic engagement in shareholder activism for diversity, equity, and inclusion. *Journal of Public Relations Research*, 36(4), 300–319.

Valentini, C. & Sriramesh, K. (2024). Forms and strategies of personal influence in "public" relations practices: evidence from Italy. *Corporate Communications*, 29(7), 39–57.

Wang, X., Reger, R. K. & Pfarrer, M. D. (2021). Faster, hotter, and more linked in: Managing social disapproval in the social media era. *Academy of Management Review*, *46*(2), 275-298.

Xiong, A., Cho, S. & Boatright, B. (2021). How #MeToo went global: A cross-cultural examination of social media and public opinion. Social Science Quarterly, 102(2), 750-769.

Yaqub, U., Chun, S. A., Atluri, V., & Vaidya, J. (2017). Analysis of political discourse on twitter in the context of the 2016 US presidential elections. *Government Information Quarterly*, 34(4), 613-626.

Yu, L. (2024).The challenges and opportunities of globalization for developing countries' macroeconomics. *Advances in Economics, Management and Political Sciences*, 76, 220-225.